

MiNTS – MISR NATIONAL TRANSPORT STUDY

**THE COMPREHENSIVE STUDY
ON THE MASTER PLAN
FOR NATIONWIDE TRANSPORT SYSTEM
IN
THE ARAB REPUBLIC OF EGYPT**

FINAL REPORT

TECHNICAL REPORT 7

**ORGANIZATIONAL AND FUNCTIONAL ASPECTS
OF THE TRANSPORT SECTOR**

March 2012

JAPAN INTERNATIONAL COOPERATION AGENCY

**ORIENTAL CONSULTANTS CO., LTD.
ALMEC CORPORATION
KATAHIRA & ENGINEERS INTERNATIONAL**

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**TRANSPORT PLANNING AUTHORITY
MINISTRY OF TRANSPORT
THE ARAB REPUBLIC OF EGYPT**

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CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

The Japan International Cooperation Agency (JICA) and the Transport Planning Authority of the Ministry of Transport are cooperating in the conduct of the *Comprehensive Study on The Master Plan for Nationwide Transport System in the Arab Republic of Egypt (MiNTS – Misr National Transport Study)*, based upon agreements finalized during July, 2009¹. Oriental Consultants Company Limited, headquartered in Tokyo, Japan, is the designated lead consultant for the study. Associated firms are Almec Corporation, Japan and Katahira & Engineers International, Japan. Technical efforts in Egypt were initiated during December, 2009.

1.2. THE MiNTS FRAMEWORK

1.2.1. Study Scope and Objectives

MiNTS is comprehensive in nature, that is, approaches have been designed to mitigate transport problems and contribute to the sustainable development of the nation. Investigative efforts extend over the entirety of the Republic (Figure 1.2.1), with a particular focus being major corridors of movement for both persons and cargo. All major modes of transport are addressed including road, rail, maritime, inland waterway, civil aviation and pipeline. However, the practical master planning focus falls upon those modes falling under the jurisdiction of the Ministry of Transport; that is, the road, rail, maritime and inland waterway sectors.

Five key milestones form the foundation upon which planning efforts are based:

- Establish a nationwide, multi-modal database whose validity rests on a series of focused transport survey and data collection exercises;
- Formulate overall strategies and policies for development of the nationwide transport fabric;
- Develop an integrated, multi-modal transport master plan with years 2017, 2022 and 2027 being short, medium and ultimate planning horizons, respectively;
- Identification, within the master plan framework, of high-priority projects; and,
- Implementation of an effective and productive technology transfer program with Egyptian counterparts.

¹ *Scope of Work - Comprehensive Study on The Master Plan for Nationwide Transport System in the Arab Republic of Egypt*, as mutually agreed upon between the Japan International Cooperation Agency and the Ministry of Transport, Government of Egypt, July 16, 2009.



Source: JICA Study Team

Figure 1.2.1 MiNTS Study Area

The transport strategy embedded within MiNTS must concurrently contribute to an efficient economic structure, strengthen linkages within Egypt as well as with neighboring countries, and provide a base for market-oriented transport activity. Economic expansion and social transformations within Egypt are well underway; continuing improvements in productivity and well-being are expected. As economic growth continues, changes in transport activities and behavior will follow suit. Thus, the foci of transport planning must gradually shift from alleviation of present deficiencies to realization of a transport system founded upon sustainable evolution and integrated, mutually supportive transport solutions. This strategy is particularly valid given the almost 20-year planning horizon adopted by MiNTS.

1.2.2. A Consultative Planning Process

The final structure of MiNTS, and the successful reception thereof, can only be achieved as a direct result of cooperative efforts and close liaison between the Study Team and local experts. Considerable efforts have been expended in gathering information, reviewing previous studies and holding numerous discussions to enhance knowledge of, and sensitivity to, local transport conditions, norms and practices.

The Study Team, housed in the offices of the Transport Planning Authority, Ministry of Transport, is being strongly assisted by its designated counterpart Special Working Group, Coordination Committee and Steering Committee. Thus, continuous and productive technical liaison is being maintained with a number of organizations including the Ministry of Transport and various entities thereof (Office of the Minister, Transport Planning Authority, Egypt National Railways, General Authority for Roads, Bridges and Land Transport, General Authority for River Transport, Maritime Transport Sector); the Ministry of Housing, Utilities and Urban Communities; Ministry of Civil Aviation; Ministry of Agriculture and Land Reclamation;

Ministry of Trade and Industry; Ministry of Industrial Development; Ministry of Interior; Ministry of Local Development; Ministry of Finance; State Ministry of Foreign Affairs, Sector of International Cooperation; Ministry of the Environment; CAPMAS (Central Agency for Public Mobilization and Statistics); as well as various Governorates and entities thereof. Close coordination has also been effected with Universities and various departments within those learned institutions.

Likewise, effective consultations are programmed with various international agencies, funding institutions, donors, and consultant groups in order to obtain an overview of previous, current, and likely future activities and/or involvement in Egypt.

1.2.3. Sustainability and Human Resources Development

The components of the Master Plan diversify beyond the traditional “hardware” concepts associated with infrastructure provision. Additional key elements of the process consist of “software” aspects, that is, available technology, international standards, and modal integration needs (cargo/passenger terminals, logistics chains, transfer points) as well as “humanware” needs. In the latter case, this represents the cultivation of human resources via the designation of training and education programs as well as other requirements for developing expertise. In other words, “sustainability”, or the notion that the planning process must allow Egyptian stakeholders to participate in visualizing and shaping their own future. This is of substantial importance in terms of ownership building if MiNTS is to be adopted and used by the people and their elected officials both during, and following, the conduct of MiNTS.

1.3. REPORTING STRUCTURE

The *Final Report* consists of three elements: The Master Plan report, Technical Reports and Appendix Reports.

- *The Master Plan* report is seen as the main document whose intent is to present, in a synoptic sense, main findings of the MiNTS investigations;
- *Technical Reports* represent a series of sector-specific reports which document the technical underpinning of *The Master Plan* document (Table 1.3.1), and,
- *Appendix Reports* represent task-specific or activity-specific documents and other data summaries, some of which have been developed in response to client group requests.

Table 1.3.1 Technical Reporting Structure

Report Number	Subject
1	Road Sector
2	Rail Sector
3	Inland Waterway Transport Sector
4	Maritime Sector
5	Civil Aviation and Pipeline Sectors
6	Demand Simulation and Scenario Testing
7	Organizational and Functional Aspects of the Transport Sector
8	Private Sector Participation
9	Environmental Considerations
10	The MiNTS Vision, Policies and Strategies
11	Transport Survey Findings
12	Project Prioritization
13	Counterpart Training Program

Source: JICA Study Team

CHAPTER 2: OVERVIEW OF ROAD SECTOR

2.1. OVERVIEW

The contents of this technical report correspond to its summarized version presented as part of Chapter 7 in the Main Report of MiNTS under the title of "Humanware Opportunities".

The concept of "Humanware" is used in this master plan to mean the third cornerstone of MiNTS planning process. The other two cornerstones being the "Hardware" and the "Software" as mentioned in Chapter 3 of MiNTS Main Report. As such it includes the aspects related to institutions, legalization and capacity building. In other words, it includes the necessary aspects that assure the "sustainability" of the implementation of MiNTS through efficient and reliable organizational structures together with improving the legal framework in addition to providing capable human resources.

Since this Study is on a national planning level, organizational, legal and capacity building aspects constitute a minor component of the Master Plan. Readers should not expect detailed analysis of all the issues related to the above mentioned subjects. Such detailed analysis can be the scope of a study under the title of "Restructuring of the Transport Sector in Egypt". The transport sector in Egypt is fragmented under several ministries and organizations and thus the term "Transport Sector" is used here to cover not only the Ministry of Transport but also all other players in the domain of the transportation industry.

Needless to say, the Ministry of Transport (MOT) is the main player in the Transport Sector, but sure enough it is not the only one. Trying to have a general picture we can say that the fields under the supervision of MOT is railway transport through the Egyptian National Railway, national trunk roads construction and maintenance through the General Authority of Roads, Bridges and Land Transport (GARBLT), Maritime Transport through the Maritime Transport Sector (MTS), the Egyptian Authority for Maritime Safety (EAMS) and the four ports authorities, inland water transport through the General Authority for River Transport (RTA), management of land ports and dry ports through the General Authority of Land and Dry Ports (GALDP), construction of transport tunnels through the National Authority of Tunnels (NAT), operation of Metro Lines through the Egyptian Company for Metro (ECM), construction of some transport related projects through the Holding Company of Roads, Bridges and Land Transport (HCRBLT) and its four subsidiaries in addition to the Transport Planning Authority (TPA) which is in charge of preparing transportation planning and the Egyptian National Institute of Transport (ENIT) in charge of transport research and human resources development.

To complete the picture, we have the Ministry of Civil Aviation which is in charge of all activities related to civil aviation, the Ministry of Housing, utilities and Urban Development which is in charge of planning and implementation of new urban communities in addition to the construction of some transport projects which are considered essential for the development of new communities, the Ministry of Investment which supervise the Holding Company for Maritime and Land Transport (HCMLT) which in turn has more than 20 subsidiaries working in maritime and land transport activities, the Ministry of Interior which is in charge of vehicle licensing and the enforcement of traffic law in addition to security of transport related facilities, the

Ministry of Tourism which supervise the tourism transportation facilities, the Ministry of Petroleum which supervise pipe line transportation, the Ministry of Water Resources and Irrigation which control the River Nile and its canals, the medium of river transport activities, in addition to 27 governorates that construct local roads and control some aspects of passengers and freight transport. The Suez Canal Authority is in charge of all aspects related to the operation and maintenance of the Suez Canal in addition to the construction of roads on both sides of the canal, the operation of the Suez Canal crossing ferry boats and the operation of Ahmad Hamdy Tunnel which was constructed by the Suez Canal Authority.

The objective of this Technical Report is to introduce the role of each of the above mentioned players and to find out the areas that require improvements so as to attain better performance of the transportation system of passengers and freight. It is to be noticed that comfort and safe transportation has become the main aim of passengers and this trend will continue to dominate passenger transportation modes. Also the competition in freight transport, not only international but also domestic, is becoming a world wide arena where only the best qualified operator(s) can survive.

The Study Team emphasizes the importance of implementing the recommendations of this chapter to attain the full potential of the Master Plan. In this context, the case of the year 2001 CREATS (Cairo Regional Area Transportation Study) is cited where the establishment of key institutional entities were recommended. Unfortunately, little, if any, progress has been achieved in this arena. The lack of Humanware enhancements would certainly be seen as part and parcel of current congestion deficiencies within the Cairo metropolitan area. Costs associated with this congestion have recently been estimated to fall between 13 and 14 billion LE per annum¹. While MiNTS is national, not urban, in scope, similar omens exist.

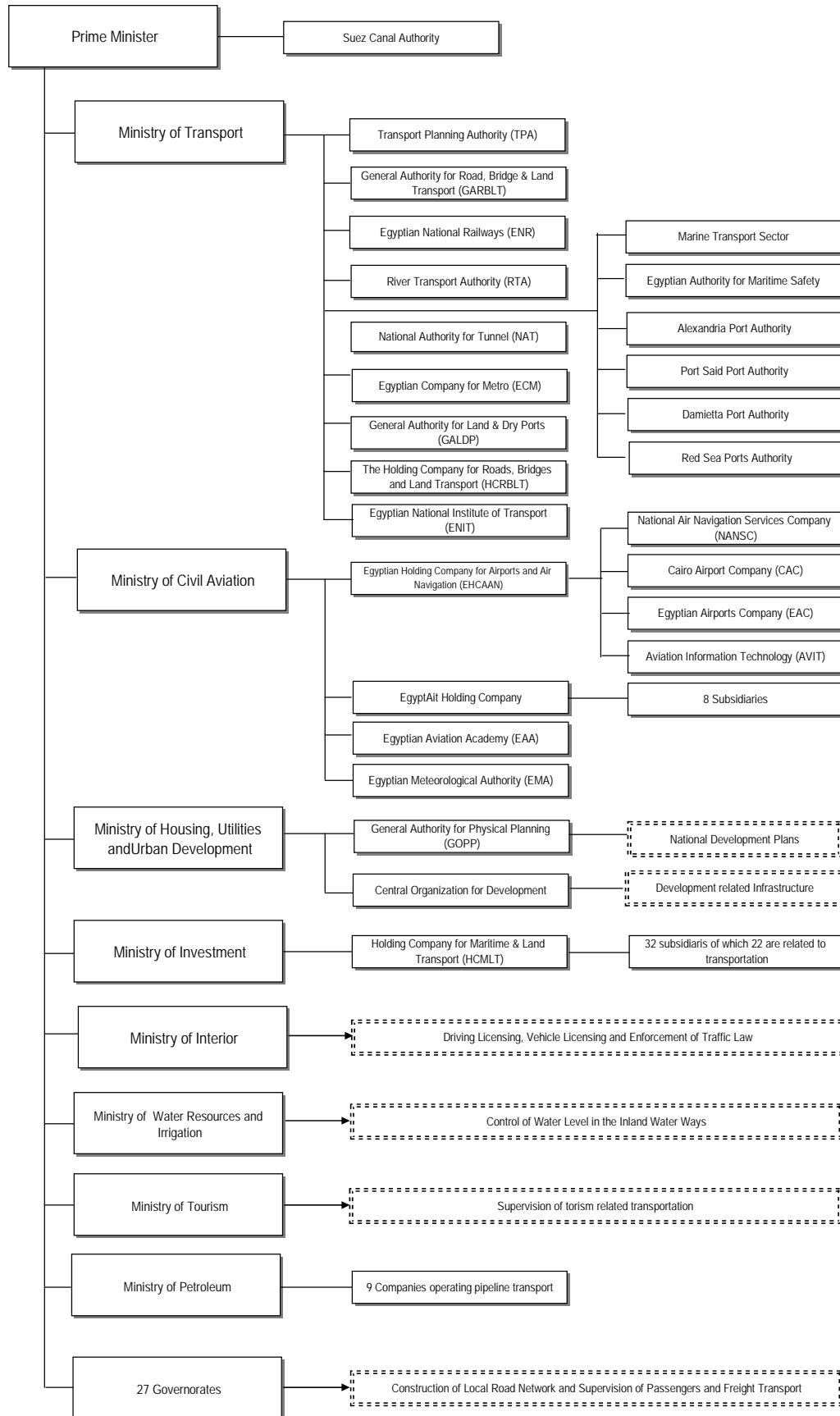


Figure 2.1.1 Governmental Entities Related to Transport

In the following sections, the entities of the Ministry of Transport will be introduced first, then, the role of other entities will be discussed thereafter. Since this Study is on the master planning level, detailed discussions of each transportation mode will not be possible, but the recommendations at the end of the Technical Report will include recommendations of more detail studies when needed.

Figure 2.1.1 summarizes the entities related to transport activities in Egypt. From the figure the degree of complexity of the transport sector in Egypt is apparent.

CHAPTER 3: THE MINISTRY OF TRANSPORT (MOT)

At the beginning, the overall domain of the Ministry will be explained and after that we will explain the governing legal framework, the institution structure and the responsibilities of each entity under the Ministry of Transport.

3.1. The Overall Domain

Over the years, the Ministry of Transport witnessed several changes in its responsibilities. Some sectors were transformed to other ministries and some new sectors were added to its domain. Table 3.1.1 summarizes the time changes in the domain of responsibilities of MOT since year 1974. As can be seen from this table the domain of responsibilities of the Ministry of Transport has witnessed many changes with time. Such changes resulted in confusion and difficulties in planning and implementation of integrated transportation projects.

According to the Presidential Decree 57/ 2002 which is the latest decree for organizing the Ministry of Transport, the main objectives of the Ministry of Transport are:

- 1- To comply with the demand requirements of transport on railways, roads, inland waterways in accordance with the national development plans. To achieve this goal, the Ministry should prepare comprehensive plans for these utilities which ensure coordination and integration between them and the activities of other sectors within the national plan. The Ministry should endeavor to improve the services of these utilities in accordance to modern scientific and technological methods to attain the best economic benefits. The Ministry should provide these utilities with the required human resources and to increase the efficiency and productivity of the human resources so as to work in accordance to modern standards and to manage these utilities according to the highest technical levels.
- 2- To develop the maritime transport utilities in accordance to the international development levels of the maritime transport industry and to prepare the necessary plans that ensure smooth operation of these utilities and to raise their operational efficiency so as to serve the national economy and to ensure safety in the territorial water and to ensure the required human resources that are capable of keeping pace with the scientific and technological advancements in the maritime transport industry.
- 3- To improve and to develop the existing road network so as to ensure more comfort, capacity and safety. In addition, the Ministry should expand the road network to meet the future requirements of national development.
- 4- To develop the inland waterways for river transport and to ensure the highest degree of safety for the river transport entities.

The responsibilities of MOT as stated in the mentioned law may be summarized as:

- 1- To delineate the general policies that fulfill the above objectives in coordination with concerned entities.
- 2- To prepare plans for the development, construction, operation and maintenance of the national railway network so as to meet the requirements of the economic and social development plans.
- 3- To prepare the required plans for the construction and development of the underground metro networks to meet the transport demand and to follow up the implementation of these networks and its operation in accordance to the highest level of efficiency. ,
- 4- To prepare a comprehensive plan for the national road network including all the necessary structures and to maintain this network in accordance to the demand of national development in all sectors.
- 5- To organize, supervise and monitor the transportation of passengers and freight on public roads so as to insure best usage the facilities of all entities working in this field.
- 6- To prepare a comprehensive plan for improving the efficiency of transportation in the River Nile and its navigational canals and to develop the technical and economical aspects of inland water transport so as to attain its targeted role in the national plans.
- 7- To develop land ports and improve its performance level so as to attain national security and the objectives of the establishment of these land ports.
- 8- To prepare comprehensive plan for the safety of transport units and its movements and all fixed and movable transport facilities in coordination with other concerned organizations and to follow up the implementation of the said plan through an organization to be established for this purpose.
- 9- To prepare a plan that insures improving the efficiency of maritime transport utilities and their development according to international standards within the national plan for economic and social development.
- 10- To delineate the overall policy for the construction of marine ports and lighthouses and their development so as to improve their efficiency for accommodating the volume of international trade and to delineate the policy for coasts protection
- 11- To provide means for navigational aids into the territorial waters to ensure navigational safety in the territorial waters and river navigation in the River Nile and its navigational branches and canals.
- 12- To supervise and monitor the implementation of the formulated plan for the safety of maritime and river transport units, their movements and all fixed and movable structures in addition to all equipments related to maritime and river transport activities in coordination with other related entities.
- 13- To prepare plans for providing specialized personnel in the fields of the activities of the Ministry and to improve the productivity of these personnel in accordance with scientific and technical development.
- 14- To activate studies and research in the working fields of the Ministry.

Taking into account the above mentioned responsibilities of MOT and the responsibilities of the organizations belonging to MOT as will be discussed later on, the Study Team has the following remarks:

- 1- Although MOT responsibilities include the preparation of several plans for each mode of transportation, the duration of updating such plans is not mentioned. This results in the lack of timely

- coordination between such plans. Timely coordination is important to achieve maximum efficiency of the required integration between all modes.
- 2- Although item 8 above mentioned the preparation of a comprehensive safety plan and an organization to follow up its implementation, the Study Team did not encounter such plan and also did not find the mentioned organization.
 - 3- Although item 10 above mentions that MOT is in charge of the policy for coasts protection, the Study Team noticed that the Coastal Protection Authority is one of the authorities of the Ministry of Water Resources and Irrigation. This means that there is some sort of duplication of responsibilities.
 - 4- Item 13 above mentions the preparation of plans for human resources development, but the Study Team did not encounter such plans. In fact the lack of such human resources plans is the most critical issue for the future development of MOT. MOT suffers from severe shortage of competent officials in almost all of its organizations and in almost all levels.
 - 5- Although item 14 above mentions the activation of studies and research in transport field, the volume of the conducted studies and research is very limited and the quality of these studies is not good enough.

Table 3.1.1 The Domain of Responsibilities of the Ministry of Transport Since 1974

Year	Name	Presidential Decree No.	General Domain of Responsibility													
			Railway	Roads	River Transport	Maritime Transport	Air Transport	Post	Communication	Passenger Road Transport	Cargo Road Transport	Cairo Transport Authority	Tunnels	Land Ports & Dry Ports*		
1974	Ministry of Transport and Communication	1097 /1974														
1975																
1976																
1977																
1978																
1979																
1980																
1981																
1982																
1983																
1984																
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1986																
1987																
1988																
1989																
1990																
1991																
1992																
1993																
1994	MOT	182/1 994														
1995																
1996	MOT & Com.	163/ 1966														
1997																
1998																
1999	MOT	360/ 1999														
2000																
2001																
2002	MOT	57/2002														
2003																
2004																
2005																
2006																
2007																
2008																
2009																
2010																

* Added by Presidential Decree 349/1996

Source: The laws and decrees mentioned in the table

Summarizing the domain of MOT according to each transportation mode, we have:

- 1) National rail transport of passengers and freight in addition to Cairo Metro but does not include Heliopolis Metro in Cairo and Alexandria tramway and some local non-standard gauge rail lines in Upper Egypt for the seasonal transportation of the harvest of sugar cane.
- 2) The construction, management and maintenance of the national network of intercity roads and bridges. However, some of the bridges across irrigation canals are constructed and maintained by the Ministry of Irrigation and Water Resources. Also, the dams and barrages constructed by the Ministry of Irrigation and Water Resources are used as parts of the roads connected to them either in the national network or in the local network. In addition local roads and bridges within the 27 Governorates are constructed and maintained by the Governorates under the overall responsibility of the Ministry of Local Governorate
- 3) The construction, overall management of Maritime Ports with some exceptions such as Sokhna Port on the Red Sea that is constructed and managed by a private company as a BOT project and the management and operation concessions of some port activities as will be elaborated in subsequent discussions. In addition to the maritime ports, MOT also has the Maritime Transport Sector which deals with overall issues of marine transport including commercial fleet, warehousing, forwarding, maritime agencies, etc. and the Egyptian Authority for Maritime Safety which deals with maritime safety issues.
- 4) The management of river transport in the inland waterways which include the River Nile, its delta branches and the navigational canals.

In addition, MOT also has what we may call "Services Authorities". They are the Transport Planning Authority (TPA), the Egyptian National Institute for Transport (ENIT), the National Authority for Tunnels (NAT) and the National Authority for Land Ports and Dry Ports (NALPDP).

On the other hand, all aspects related to civil aviation, while for some years were under MOT, have been separated and currently they are under the responsibility of the Ministry of Civil Aviation. Also the management and operation of the Suez Canal is the responsibility of the Suez Canal Authority which reports directly to the Prime Minister

In the following sections, the organization structure, responsibilities and function of each organization within the domain of MOT will be discussed in more detail.

Figure 3.1.1 shows a schematic diagram of the organizations of the Ministry of Transport.

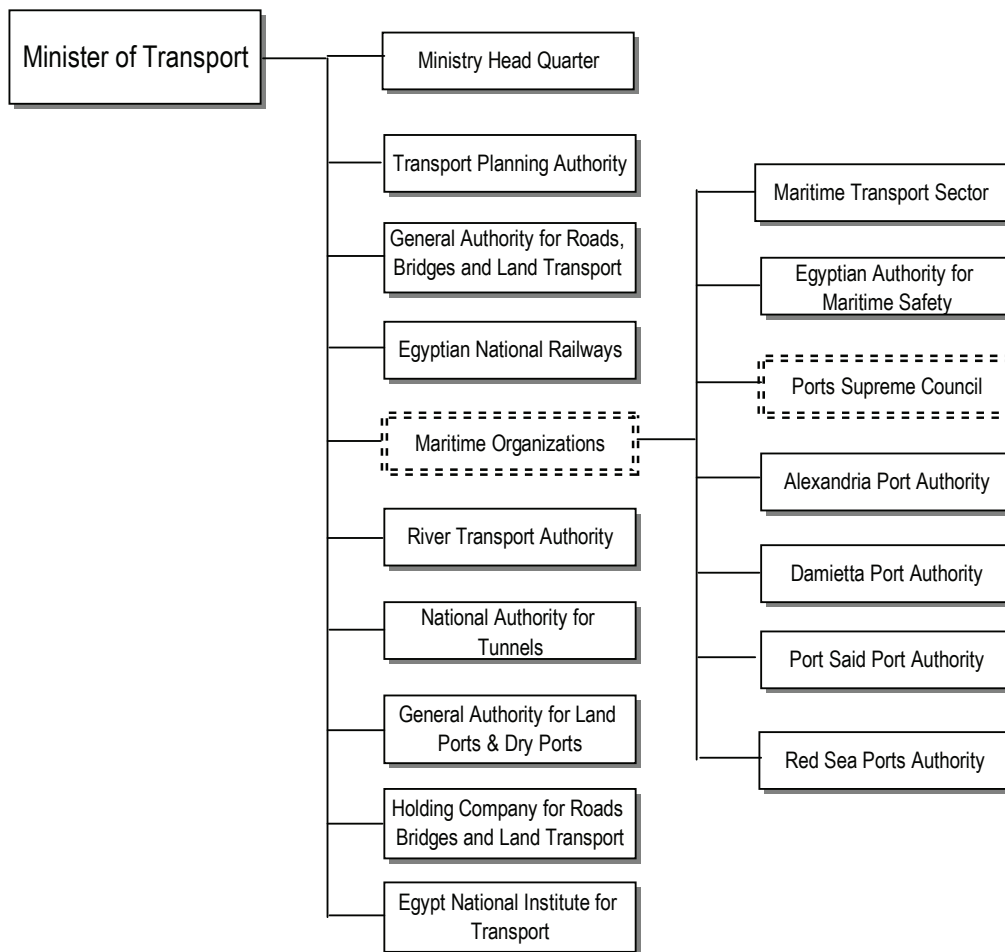


Figure 3.1.1 Schematic Diagram of the Organization of the Ministry of Transport

3.2. The Head Quarters of the Ministry of Transport

The organization structure of the head quarters of the Ministry of Transport is shown in Figure 3.2.1. As can be seen from that organization, the main function is budget preparation. This is done by collecting the budget requirements from all the authorities under MOT and sends these requirements to the Ministry of Planning and Ministry of Finance for the preparation of the projects of the five year plans and annual budget of the government respectively. Prioritizing and integration of the projects submitted by the various organizations of MOT is not considered and budget cuts are made without consulting the authority in charge. This state leads to lack of integration and extensions in projects implementation schedule which means that the projects do not attain the targeted economic benefits. Accordingly, prioritizing and integration of MOT projects should be at the top of the responsibilities of MOT head quarters.

In many other countries, it is the practice of the Ministries of Transport to publish annual reports for the Ministry activities. Such reports normally includes: the national strategy of transport sector, the institution framework of the Ministry of Transport including new laws if any, the contribution of the transport sector into the national economy, the highlights of the activities of all the authorities under the Ministry of Transport and the activities of the joint and private sector companies working in the field of Transportation in addition to statistical data about the Ministry. The Study Team has noticed that the Maritime Sector is the only

sector which publishes annual statistical report through its data bank. Other sectors do not have periodical publications. MOT should establish the practice publishing periodical reports about its activities.

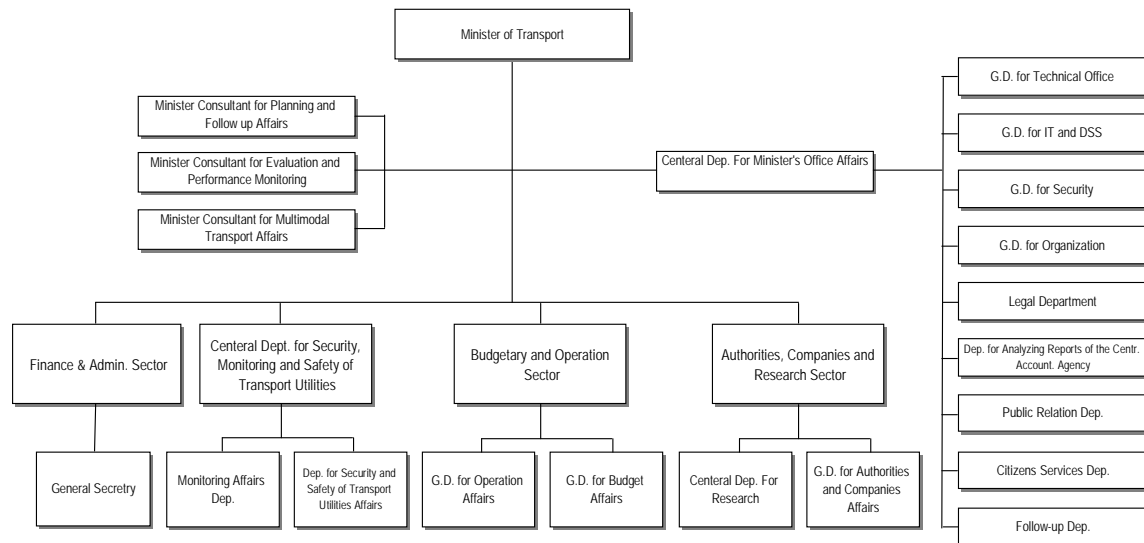


Figure 3.2.1 Organization Chart of the Head Quarters of the Ministry of Transport

The organization chart of the Head Quarters of MOT shows that some major activities such as planning and follow-up affairs, evaluation and performance monitoring and multimodal transport affairs are the responsibility of advisors to the Minister. Since these activities have a continuous nature, they should be normally undertaken by permanent departments. Due to the fact that the two main technical entities of the Ministry, viz. the Transport Planning Authority and the Egyptian National Institute of Transport have severe shortage of qualified personnel, they are not in position to provide technical support to the Minister in the above mentioned fields. Every new minister appoints his own advisors on temporary contract basis. These advisors are either retired officials from the MOT or retired army officers or close acquaintances of the Minister. Most of these advisors terminate their work when a new minister is appointed. The same routine is followed in most of the Egyptian ministries. This arrangement has adverse effects on the continuity of policies as will be discussed later on.

3.3. The Organization and responsibilities of the Transport Planning Authority

The Transport Planning Authority (TPA) was established under MOT in accordance with the Presidential Decree No. 1256/1973 which is a modification of Decree No. 41/1972. The tasks assigned to TPA are:

1. To set up a comprehensive transport plan and prepare related programs for implementation so that the related organizations can include the projects in their plans.
2. To coordinate between transport plans and transport projects.
3. To study transport projects to attain their functional integration.
4. To assist the various transport sectors in the technical and economical studies of their projects or make the necessary modifications and/or modify these projects from all technical and economical views.

5. To conduct required studies for achieving technical and economic efficiency of transport infrastructure.
6. To conduct the required research for the development of transport infrastructure ensuring the implementation of new scientific and technological findings in the transportation field in addition to new management systems.
7. To supervise planning and implementation of transportation projects assigned to TPA.

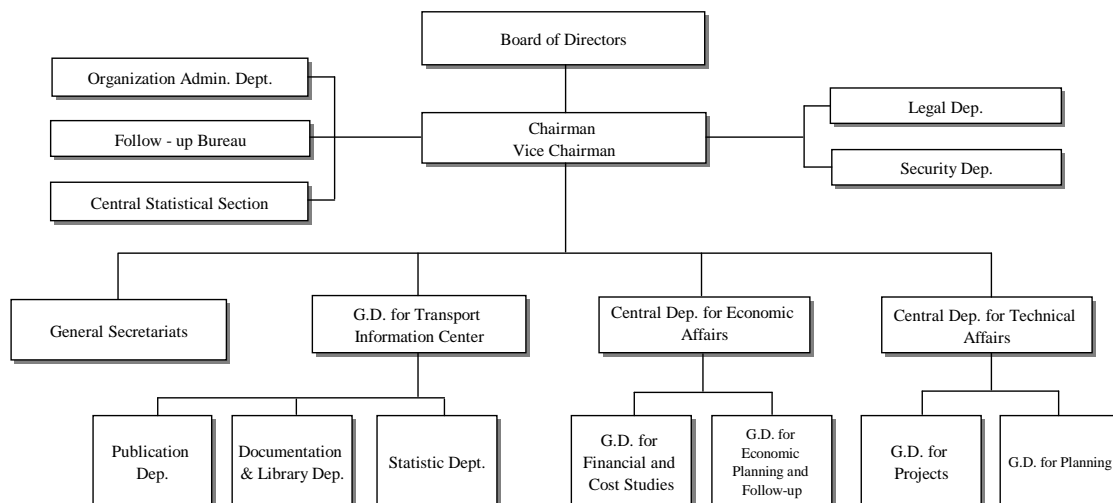


Figure 3.3.1 Organization Chart of the Transport Planning Authority

Figure 3.3.1 shows the organization chart of TPA. The Board of Directors is chaired by the Minister of Transport and the Board of Directors is composed of the following representatives:

- Minister of Transport (Chairman)
- Vice Chairman
- Chairmen of the Authorities under the Ministry of Transport
- Under-secretary from the Ministry of Transport
- Under-secretary from the Ministry of Planning
- Under-secretary from the Ministry of Finance
- Under-secretary from the Ministry of Irrigation
- Counselor from the State Council.
- Director of Economic Affairs, TPA
- Director of Technical Affairs, TPA
- 5 members with experience in transport affairs appointed by the Chairman (Minister of Transport)

The main departments of the TPA are:

- The Central Department of Economic Affairs
- The Central Department of Technical Affairs
- The Transport Information Center

As can be seen from the responsibilities and structure of the TPA, it has been established to serve as:

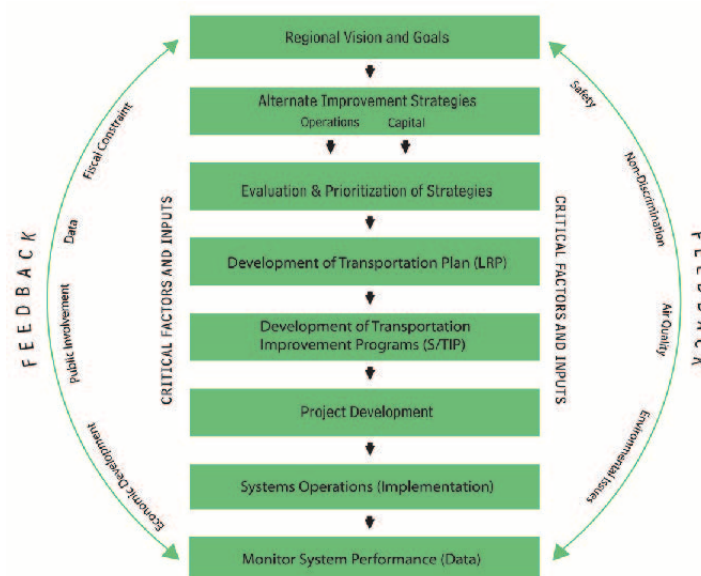
- The planning entity for the Ministry of Transport and its authorities.

- Technical consultant to the Minister of Transport and to the authorities of MOT.
- Coordinating body between the different modes of transportation.
- Data bank for all data and information required for transport planning either from within the Ministry of Transport or from other sources.
- Collection and dissipation of information from foreign sources.

It is to be noticed that the law establishing TPA has appointed the Minister of Transport to be its chairman to give the TPA the authority for getting the data and information from other entities of the Ministry and overrule their proposed modal plans in favor of an integrated transport system. Being such the case it was expected that the consecutive ministers will support the development of TPA to fulfill the tasks assigned to it by law. Since 1981, the study titled "Egypt National Transport Study Phase II" has recognized the importance of strengthening the capacity of TPA and it even included what it called "A Blue-Print for TPA". This Blue Print included detailed restructuring of TPA.

However, the continuous shortage of qualified personnel in addition to clear shortage in finance resources resulted in a decline in the role of TPA within the MOT. The shortage in qualified personnel is attributed to low governmental salaries with its negative impact on motivation. Capable personnel left the TPA to work in private companies and/or Arab countries at much higher salary. Although the low salary of governmental employees is a national issue and is not limited to the MOT, its effect is more apparent in locations where the work requires creative abilities as in the case of TPA. Presently, TPA has only 5 engineers out of its total employee of more than 100.

Since transport planning encompasses many variables that are in the domain of other ministries and organizations, such as air quality, congestion management, financial planning and programming, freight movement, land use and transportation, performance measures, planning and environmental linkage, public involvement, safety, security, system management and operation, technology application for planning such as GIS and visualization, public and environmental justice, transportation asset management budgetary changes, etc., it is essential to have a transport planning system that are flexible enough to respond to those variables while maintaining the assigned objectives. This means that transport planning should be a continuous endeavor. Figure 3.3.2 depicts the process of transport planning.



Notes: LRP= Long Range Plan; S/TIP= State Transportation Improvement Program

Source: The Transportation Planning Process : Key Issues, Federal Highway Administration, USA 2007

Figure 3.3.2 Transportation Planning Process

The TPA should have the human resources and the financial resources to perform such tasks. As mentioned above TPA has a severe shortage in human resources and the available annual budget for studies is in the range of one million L.E. TPA uses the annual budget to contract local consulting firms to conduct 3 or 4 studies per annum. Due to the limited budget, these studies are in the level of background papers.

The contracting procedures follow the governmental guidelines which are based on value for money principle. A short list of consultants is invited to submit technical and financial proposals. A committee is formed to evaluate the technical proposal. The financial proposals of all the firms that get 70% or more in the technical evaluation are opened and a formula for the comparison of technical and financial proposals is adopted to decide the winning firm. Although the technical proposal may include the C.Vs of some specialists, there is no guarantee that such specialists have real tasks in the study. During the period of the study there is little chance for exchanging of ideas between the officials of TPA and the members of the study team. Normally, the consulting firm collect the required data by itself or rely on data from previous studies provided by the TPA, In either cases the data submitted from the consulting firms are not arranged in a unified format and thus are difficult to use at best or not useful at all in most cases. The Steering Committee formulated for the contracted study send its comments to the consulting firm and all communication between TPA and the consulting firm is in written form only. The consulting firm does not make presentations or discuss their findings with TPA officials. Due to the limited budget, TPA is not able to reach a better deal which satisfies its requirement.

For large scale studies such as modal or national studied, TPA relies on international aid. However, since international aid is not a reliable and continuous source, capacity building for TPA should be one of the top priority endeavors to ensure continuous development of the transport sector in Egypt. Without continuous development of planning capacity of the transport sector the losses in the national economy will be much larger than the cost of improving TPA.

As the authority in charge of planning for the Ministry of Transport, TPA should have a pivotal role in the preparation of the 5 year plan of the Ministry. In fact TPA as well as all other authorities belonging to the Ministry of Transport prepare their own projects for the 5 year plan and send them to the head quarters of the Ministry of Transport. The later lists up TPA project within the 5 year plan for the whole ministry and then sent them to the Ministry of Economic Development (former Ministry of Planning) for preparing the 5 year plan within the National Five Year. This means that TPA does not coordinate the projects of the 5 year plan of the Ministry of Transport and is responsible only for its own plan.

TPA does not collect nor disseminate transport information through the publication of periodicals to other organizations of MOT. TPA does not subscribe to international periodicals related to transportation and thus does not fulfill its role as information source to MOT organizations.

3.4. The General Authority for Roads, Bridges and Land Transport (GARBLT)

The General Authority for Roadways and Waterways was established by the Presidential Decree No. 359/1976 to replace the Egyptian General Establishment for Roads and Bridges and the General Establishment for River Transport.

In 1979 the General Authority for River Transport was established by the Presidential Decree 474/1979 to be in charge of the activities of the river transport and thus separated these activities from the above mentioned General Authority for Roadways and Waterways. This was followed by the Presidential Decree 476/1979 which renamed the General Authority for Roadways and Waterways to be the General Authority for Roads and Bridges.

Law 97/1983 re-arranged the public sector in Egypt and the Presidential Decree 432/1983 put the four public sector contractors: the Nile Company for Roads and Bridges, the Nile Company for Desert Roads, the Nile Company for Road Construction and the Nile Company for Construction and Pavement under the supervision of the General Authority for Road and Bridges

In year 1955 the Presidential Decree 407/1955 modified the responsibilities of the General Authority for Roads and Bridges to include the supervision of passengers land transport and changed its name to the current name of the General Authority for Roads, Bridges and Land Transport (GARBLT)

The Presidential Decree 274/2002 established the Holding Company for Projects of Roads, Bridges and Land Transport as the holding company owning the four contracting company mentioned above. Although most of the established holding companies for the public sector companies were transferred to the Ministry of Public Sector (the current Ministry of Investment), the Holding Company for Projects of Roads, Bridges and Land Transport remained under the Minister of Transport.

After separating the supervision of the four contracting companies from GARBLT, the Presidential Decree 334/2004 added the responsibilities of regulating the road cargo transport to the responsibilities of GARBLT. Table 3.4.1 shows the variations in the domain of the General Authority for Roads, Bridges and Land Transport with time. The responsibilities of GARBLT were restructured as follows:

3.4.1. First: In the field of Roads and Bridges:

- To prepare comprehensive plans for roads and bridges including all related structures, required projects and programs, technical standards for materials and specifications for implementation.
- To evaluate all roads and bridges projects from the point of view of soundness of planning and to supervise project implementation.
- To conduct research and studies and to establish training and research centers that will improve performance and implement technical development.
- To prepare studies and plans for the maintenance of expressways and main roads and to supervise the implementation of maintenance work.
- To provide services, studies, technical advice, design and supervision for other parties through agreed contracts.
- Any other responsibilities stipulated in legalizations related to public roads.

Table 3.4.1 The Domain of Responsibilities of the General Authority for Roads, Bridges and Land Transport Since 1976

Year	Name	Law no Presidential Decree	Roads & Bridges	Passenger Transport	Cargo Transport	Contracting Companies	River Transport	
1976	G. A. for Roadways & Waterways	P.D. 359 Y 1976						
1977								
1978								
1979	G. A. for Roads and Bridges	P.D. 476 Y 1979						
1980								
1981								
1982								
1983		P.D. 432 Y 1983						
1984								
1985								
1986								
1987								
1988								
1989								
1990								
1991								
1992								
1993								
1994								
1995	G. A. for Roads, Bridges & Land Transport	P.D. 407 Y 1995						
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								
2004			P.D. 359 Y 2004					
2005								
2006								
2007								
2008								
2009								
2010								

Source: Laws mentioned in the table

3.4.2. Second: In the Field of Road transport of Passengers:

- To prepare comprehensive plan for road transport of passengers on public roads in accordance with the overall policies of the Ministry of Transport.
- To conduct the procedures for selecting and assigning concessions for the operation of passengers road transportation facilities and to supervise the implementation of these concessions.
- To set the rules organizing public transport of passengers on roads and supervise their implementation in coordination with related agencies

- To suggest the establishment or the expansion of passengers road transport projects in the different districts taking into consideration the regulations of local governorates.
- To set the rules for statistical data, records, accounts and all other services related to passengers road transport including annual reports and any other information needed by the Authority.
- To suggest drafts for regulations and rules required to regulate passenger road transport in accordance with Law 22/1971.

3.4.3. Third: In the field of cargo and equipment transport:

- To prepare comprehensive plan for cargo and equipment transport on public roads.
- To set the rules for the regulation of cargo and equipment transport works on public roads and to supervise cargo transportation projects to ensure the efficient operation of these works.
- To supervise and monitor cargo transport facilities on public roads on the routes specified by a decree from the Minister of Transport.
- To prepare studies related to licensing the establishment or the enlargement of cargo land transport projects including increasing or decreasing their capacities after consultation with the Transport Planning Authority.
- To study the requests for importing cargo and equipment transport vehicles before submitting them to the Minister of Transport
- To suggest rules and conditions for the road transport of cargo and equipment on public roads and to propose tariffs for cargo transport to be submitted to the Minister of Transport for approval.
- To implement all inspections and monitoring on road transport of cargo and equipment on public roads in cooperation with related traffic police.
- To set rules for statistics, records, accounts, documents and related services and the rules for annual reports.
- To perform any other responsibilities stated in Law 64/1970.

The organization chart of the General Authority for Roads, Bridges and Land Transport is shown in Figure 3.4.1.

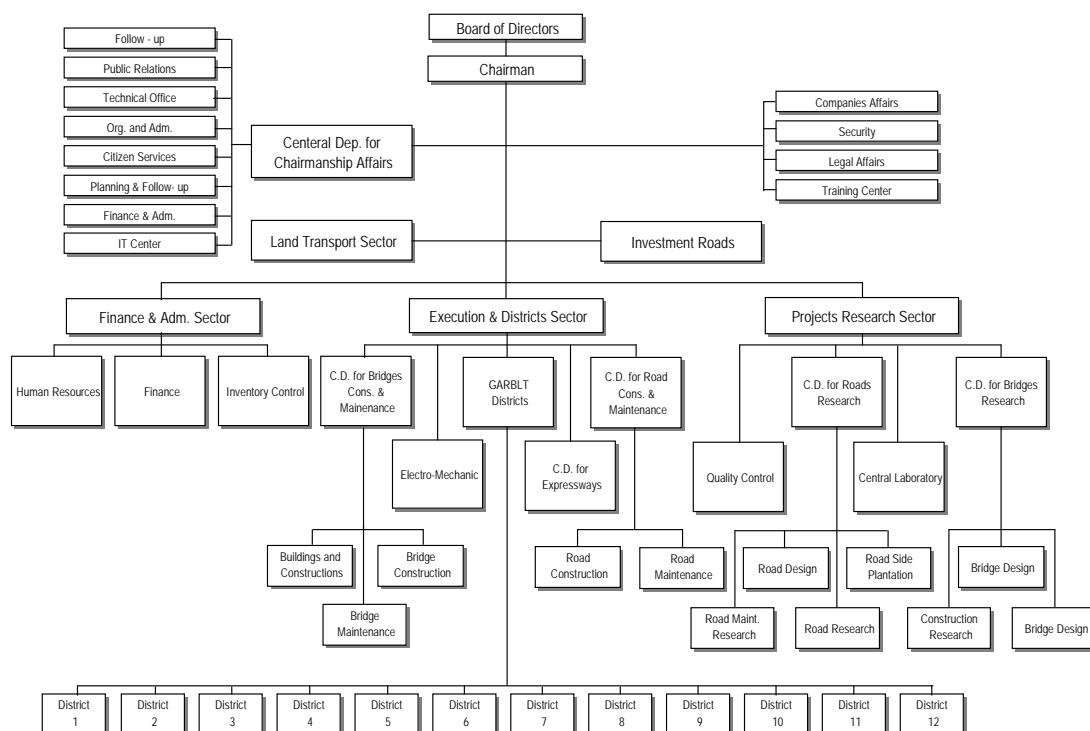


Figure 3.4.1 Organization Chart of the General Authority for Roads, Bridges and Land Transport

GARBLT has 12 districts which cover the whole area of Egypt. These districts are in charge of GARBLT activities within the governorates of each district. In addition, GARBLT districts provide technical support regarding road construction and maintenance to the departments of roads and bridges in the respective governorates. The districts offices have a total large force (4-5,000 persons), and each office is responsible for an average of 1,500 km of highways. Table 3.4.2 shows the governorates covered by each district.

Table 3.4.2 GARBLT Districts and covered governorates

District No.	District Name	Covered Governorates
1	Central District	Cairo – Giza – Qalubia
2	Canal and Sinai	Port Said – Ismailia – North Sinai
3	East Delta	Dakahlia – Sharqia – Damietta
4	Middle Delta	Kafr El Sheikh – Gharbia – Minufia
5	West Delta	Alexandria – Behira – Matrouh
6	Beni Suif	Beni Suif – Fayum
7	Asyout	El Menya – Asyout
8	Qena	Luxor – Qena – Sohag
9	Red Sea	Red Sea
10	Aswan	Aswan
11	South Sinai	Suez – South Sinai
12	New Valley	New Valley

The General Authority for Roads, Bridges and Land Transport (GARBLT) has jurisdiction over 23,000 km of the total paved roadway network in Egypt which have a total length of about 50,000 km. GARBLT's roads constitute mainly of the national intercity roads. The rest are local roads under the jurisdiction of the Governorates. GARBLT gets most of its budget from the national budget allocated to the Ministry of transport, its self generated income includes; tolls collected from toll roads, revenue from advertisement concessions along the sides of its roads and the fines collected from trucks with axle loads over the permitted by the law.

GARBLT design its roads and bridges according to the Egyptian Code issued by the Ministry of Housing, Utilities and Urban Development. In most cases GARBLT uses its own staff to supervise project implementation except in special cases where they employ consultants to supervise the implementation of some projects. Most of the Egyptian consulting firms are working as consultants for the government entities and the contractors but not in the same project. This state constitutes a conflict of interest which has adverse effect on project implementation.

The budget of GARBLT has increased sharply since 2008 and in view of the limited capacity of its technical staff, GARBLT reliance on consulting firms has been increasing. Due to the sever competition between local consultants, the consultant fees for supervision service are very limited. This means that the consultant has to put the minimum resources for project supervision. This in turn can lead to low quality of road construction which can be easily noticed in many roads.

Although GARBLT has weighting facilities at fixed locations along main roads, GARBLT can not enforce the trucks to check their axle load without the attendance of traffic police which is not always available. The consequence is having many trucks running on the roads with excessive axle load which results in fast deterioration of the pavement.

The People's assembly has passed a resolution preventing the use of truck – trailer combinations due to their adverse effect on safety, but truck owners are still resisting the implementation of the law. The Government has postponed the law implementation to year 2013.

A study by the World Bank has defined the problems facing road maintenance as:

- "Core Road Network" is facing increasing pressure from congestion and usage overloaded by an aging fleet of vehicle.
- Rapid expansion of the road network over the last 25 years (15,000 km to 50,000 km) has been at the expense of regular maintenance.
- Pavements of relatively high portion (28%) of arterial roads are in poor or failed condition
- Inadequate annual funding for road construction and maintenance contributes to very slow pace of construction, a serious backlog of unmaintained roads and worsening traffic flow conditions.
- Ineffective axle load enforcement polices
- Low budgets for road maintenance
- GARBLT has fragmented organizational structure with many small departments and units reporting directly to senior managers.

- Public road construction corporations dominate the sector. GARBLT can seldom impose any sort of obligations regarding the implementation of construction contract. It worth noting that some high posts in GARBLT are filled by officials from these corporations.

The agenda for reform of GARBLT may include:

- Streamline of responsibilities of each department and unit
- Delegate responsibilities, increase training and involve stakeholders in decision making.
- Promote more and better competition between public and private contractors.
- Improve contracts with consultants and contractors by using FIDIC contracts. This will help the contractors to improve their performance and became able to compete in projects in the Arab World and Africa where tremendous opportunities are still available for road construction.
- Applying performance-based road maintenance management
- Enforce regulations of heavy vehicle overloading.
- Since the governorates do not have their own finance structure, it may be better to manage national and governorate roads by one organization. This will enable the application of more appropriate standards, more optimal spreading of available funding for maintenance and investment, and will make use of the economics of scale.

3.5. Egyptian National Railway (ENR)

Egypt was the second country in the World to introduce railway service after England. The first railway line was completed in 1853. The General Authority for the Egyptian Railway was established under the Ministry of communication by Law No. 366/1956. The aim of that law was to give the Egyptian Railway more freedom from the strict rules that govern the activities of governmental bodies. According to that law, the chairman of the Egyptian Railway was the Minister of Communications. In 1966 the Presidential Decree No. 2715 limited the responsibilities of the Minister of Transport to supervision and monitoring of the performance of the General Authority of the Egyptian Railway and gave the responsibilities of its management to the chairman and the board of directors. In 1980, Law 152 granted the authority more autonomy to enable it to perform its duties in more flexible environment. The main features of that law can be summarized as:

- Emphasize the National character of the railway. This means that local authorities have no power regarding its activities.
- Granting the Authority complete monopoly for the construction, operation maintenance and service providence of railways on the national level.
- Granting the Authority the right to establish stock companies either owned solely by the Authority or with other entities to perform the objectives of the Authority.
- Granting exemption of the Authority from normal governmental procedures. This meant that the Authority will have its own budget, the right to establish its own management system, exemption of rules of importation and the use of foreign currency and the right to implement its own decisions for the fulfillment of its objectives.

- The funds for the Authority are compiled of the amount allocated to the Authority in the general budget of the country, the income from the services of the Authority and the difference between the service prices if the government decided the services prices in a level lower than the price approved by the Authority.
- Full legal protection of the Authority' funds.
- The appointment of a representative of the employees in the board of directors of the Authority.

The ENR is transporting about 6.6% of the passenger transport expressed in passenger.km and about 1.3% of cargo transport expressed in ton.km. Although the share of cargo transport is minor, it accounts to about 25% of the revenue of the ENR. The main reason behind this situation is that the passengers' ticket price is kept at low level for social considerations.

ENR has been neglected for decades due to the lack of sufficient funds resulting in a deteriorated state of equipment, maintenance service and untrained personnel. The recurring train accidents and delays, deteriorated state of locomotives, trains and signaling system, lack of qualified labor, old safety and security systems, and insufficient budget, are major reasons behind ENR's losses which are estimated at \$1 billion annually.

ENR is in the midst of a major reform program covering all aspects of its operation. The main railway policy objective set by the Egyptian Government in general and by the Ministry of Transport in particular are as follows: .

Table 3.5.1 Objectives of the ENR reform program

Objective	Policies
Enhance Safety of Services	<ul style="list-style-type: none"> • Introduce safety regulation and oversight • Improve safety performance to reach acceptable safety levels for rail services in Egypt
Improve Customer Service Levels	<ul style="list-style-type: none"> • Enhance operational performance to become a credible and reliable mode of transport
Develop Rail Freight Business	<ul style="list-style-type: none"> • Unlock the potential of ENR's freight business • Compete successfully with other modes of transport
Commercialize with Social Responsibility	<ul style="list-style-type: none"> • Ensure access of citizens to rail services • Ensure that ENR's social responsibility does not hinder its commercialization drive
Achieve Financial Self Sustainability	<ul style="list-style-type: none"> • ENR to become profitable within a mid-term time frame • ENR to achieve self-funding from its cash flows to maintain the required high level of investments

Source: Identification and Formulation of Budgetary Support Programme for the Transport Sector in Egypt, EuropeAid, 2008

Activities to achieve these objectives are bundled into three phases, a restructuring phase (2007 -09), a commercialization phase (2010 -2012) and a market opening phase (2012 +).The restructuring phase concentrates efforts on the core business areas of short distance passenger transportation, long distance passenger transportation and freight transportation. A new organizational structure was developed as illustrated in the Figure 3.5.1 below.

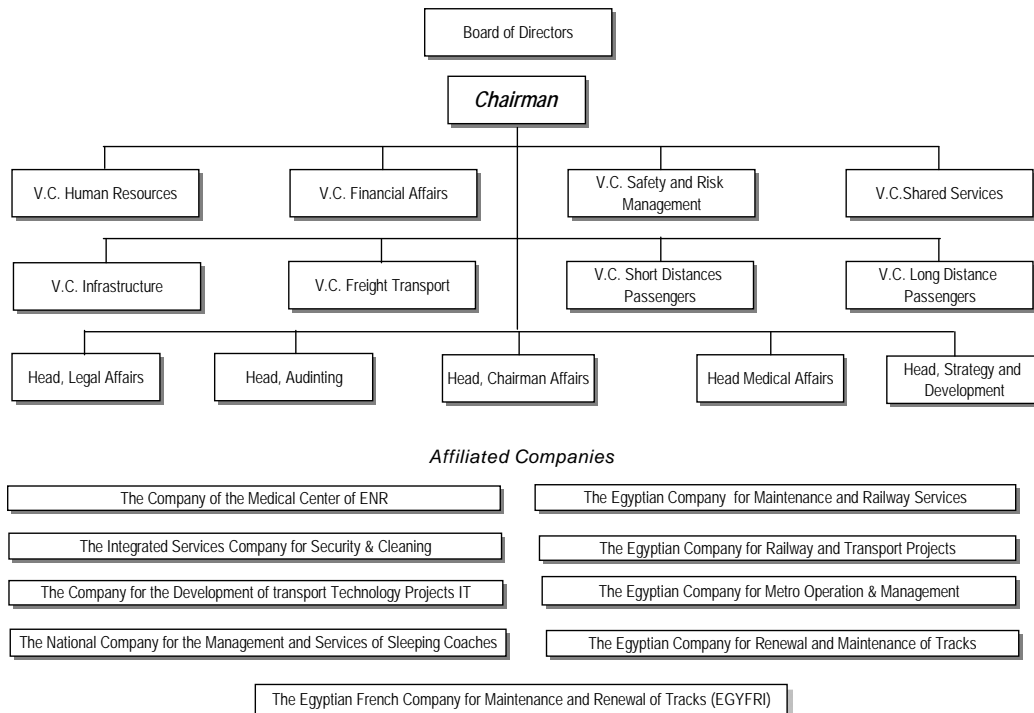


Figure 3.5.1 New Organization Chart of Egyptian National Railway since 2007

Law 152/1980 has enabled the Authority to establish nine affiliated companies to improve its performance. These companies are:

- 1) The Company of the Medical Center of ENR
- 2) The Egyptian Company for Maintenance and Railway Services
- 3) The Integrated Services Company for Security & Cleaning
- 4) The Egyptian company for Railway and Transport Projects.
- 5) The Company for the Development of Transport Technology Projects IT
- 6) The Egyptian Company for Metro Operation & Management
- 7) The National Company for the Management and Services of Sleeping Coaches.
- 8) The Egyptian Company for Renewal and Maintenance of tracks.
- 9) The Egyptian French Company for Maintenance and renewal of Tracks (EGYFRI)

ENR has a history of serious accidents that are attributed to poor maintenance of the rolling stock, outdated signaling system and overcrowded passenger cars. The issues facing the current Safety Department of ENR are:

- Lack of formal and structured safety organization.
- Absence of key safety management systems.
- No effective compilation of statistical safety performance data.
- Low enforcement of safety rules/ policies.
- Lack of power conferred to safety related employees and safety inspectors.
- Ineffective allocation and shortage of safety leadership and qualified skills.

To improve these safety issues, the EC has supported a twinning programme titled: "Assistance to the Egyptian Ministry of Transport for reforming Railway Safety Regulations , Procedures and Practices". The

general objective of the twinning programme is to upgrade the overall capacity of the Egyptian administration in the railway field by improving the legislative and regulatory framework and strengthening institutional capacity.

The Ministry of Transport is determined to restructure ENR by undertaking a number of measures including the following.

- a. Separating safety regulatory unit from the operator(s) by the establishment of a Railway Safety Regulator. The Railway Safety Regulatory Unit (RSRU) was established at MOT head quarters in 2006. This process involved undertaking historical accidents and risk assessment as well as contracting Booz Allan Hamilton to assist in the formation of a comprehensive restructuring plan for ENR. The restructuring plan included also the establishment of a railway inspectorate within ENR responsible for risk assessment and hazard identification as well as technical inspection of infrastructure and rolling stock.
- b. To benefit from European expertise and EU directives by approximating, to the extent feasible, its safety regulations to the community "acquis".
- c. Developing the signaling system including modifications of stations layouts and timetable.
- d. Infrastructure modernization utilizing public investment and loans for the reconstruction and rehabilitation of railway infrastructure including telecommunication system.
- e. Rolling stock modernization including upgrading of workshop capabilities, rehabilitate old stock and order new locomotives and coaches.
- f. Establish proper automated management information system.
- g. Organizational restructuring as well as reforming human resources policies and regulations including recruitment, incentives systems, training, job description and appraisal system.
- h. Utilization of public-private partnership method for further development of the transit functions of Egypt.

3.6. The River Transport Authority

The first public authority for the supervision of river transport was established under the Ministry of Transport and communication in 1947. Thereafter, its name and status have been changed several times until the issuance of the Presidential Decree 474/1979 which established the General Authority for River Transport (RTA). The said decree stipulated the responsibilities of RTA as follows:

- 1- Implementation of the laws regulating inland navigation
- 2- Delineation of comprehensive plans for river transport facilities and all structural works related thereto in order to fulfill the requirements of all aspects of river transport and approval of all related programs and projects and the supervision of their implementation.
- 3- Dredging, improving and maintaining navigation channels and locks so as to be in optimum operation condition.

- 4- Supervision of all river transport projects to ensure their proper implementation and conformity to the technical conditions and specification.
- 5- Decide the navigation routes, locks and public river ports and establish the rules for their usage.
- 6- Fixing the fees for the use of the structures built by the Authority.
- 7- Dividing the navigation waterways into cargo and passenger routes and running them in accordance with the rules and regulation stipulated in the navigation laws.

The Presidential Decree 1200/1991 transferred the Regional Institute of River Transport from the Authority of Public Enterprise for Land and River Transport to the General Authority of River Transport (RTA) and thus RTA became the responsible authority for all activities related to river transport. The responsibilities of the Institute are:

- 1- Preparing specialists in river transport and granting the graduates certificates after passing specialized examinations.
- 2- Organize scientific and pragmatic courses for the employees of the river transport sector and other related sectors in order to enhance the efficiency of the employees.
- 3- Dispatch academic and practical missions, both domestically and abroad to keep abreast with the latest developments in all branches of transport sciences.
- 4- Establishing an academic library for river transport as well as other subjects related thereto, as well as establishing a center for academic documentation, translation and publication in the field of river transport.

In addition to the Regional Institute of River Transport, there is the "High Industrial School for River Transport". The Ministry of Education cooperates with RTA in the preparation of the curriculum of this school. The graduates of this school prefer to work in tourist boats due to the low salary and hard living conditions in the cargo units. The main problems for those working on the cargo units are: i- There is no proper accommodation for living on the cargo units. ii- Operation time starts from Sunrise to Sunset and the mean length of the round trip is 11 days. iii- low salary taking into consideration the hard living conditions.

In 1975 the Egyptian and Sudanese Governments concluded an agreement for the establishment of the Nile Valley River Navigation Authority. This Authority is in charge of:

- 1- River transport of passengers, freight, packages, mail and animals between the High Dam Port in Egypt and Halfa Port in Sudan.
- 2- Supervise tourist river transport in the High Dam Lake between the High Dam Port and Halfa Port.
- 3- Construction of required vessels and construction of required facilities for the repair and maintenance of these vessels.

Figure 3.6.1 shows the organization chart RTA (main departments only)

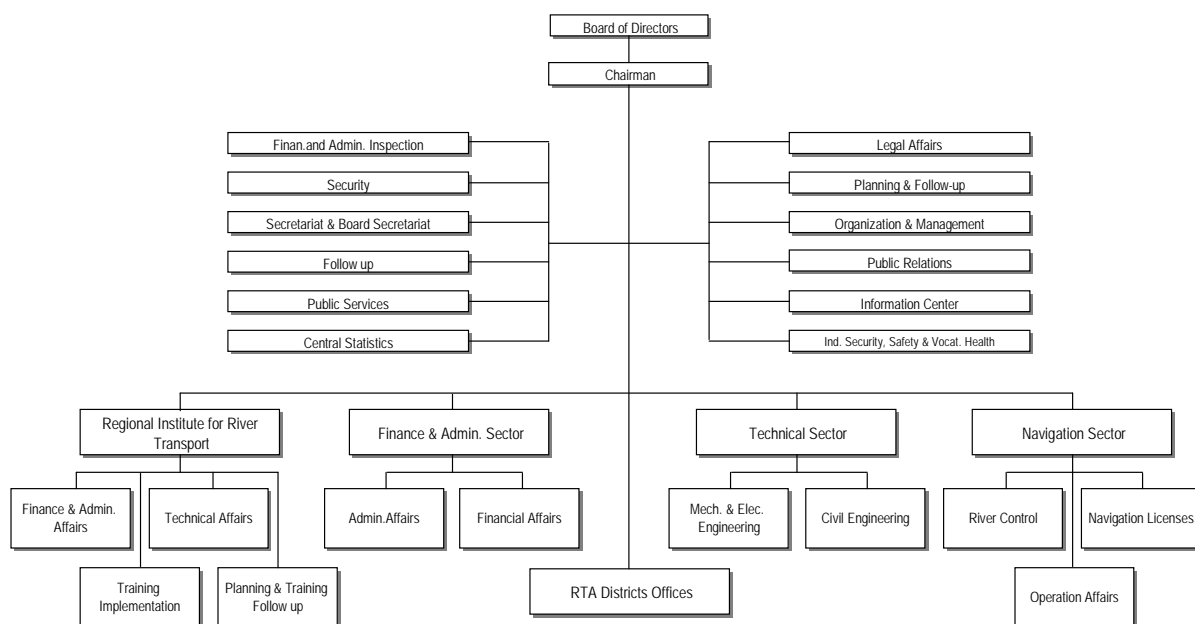


Figure 3.6.1 Organization Chart of the General Authority for River Transport (RTA)

The main tasks of RTA are to maintain navigational water depth by executing surveys and dredging and to maintain and operate the locks on the navigation routes. There are 44 river ports, 4 of them are owned by RTA, 37 are owned by industrial and silos companies and the remaining 3 are used for quarries. There is no port equipped for the handling of containers.

According to the study titled "Preparation of National Plan for Cargo Transportation System, TPA, 2005, in Arabic", The total number of floating units are 5547, 52.3% of them are passengers units and 34.3% of them are single or double barges cargo units. The remaining part is touristic units, tugs and other service units. 77.9% of these units are owned by private sector and the remaining part is owned by the government or public sector companies. The total estimated tonnage of the cargo units is 516,048 tons, but the ratio of the operable units is between 60% and 70%. The mean age of the fleet varies between 16.72 years for the private sector units to 29.97 years for the Sugar Company units. More than 65% of the units have age of more than 30 years. The same study estimated that only 13.4% of the fleet capacity is employed, which means that most of the fleet is idle. Although these data represents the status in 2003, the current distribution did not change materially.

The main cargo items transported by inland water are petroleum products, cement, phosphate, building materials, cock, metals, molasses, aluminum, stones and clay. So far no containers are transported by inland water due to lack of container handling equipment and container yards at the river ports.

3.6.1. Operating River Ports

Although there are about 50 river ports located throughout Egypt, most of them are not operating. The operating river ports are shown in Table 3.6.1.

Table 3.6.1 Operating River Ports

River Port	Location	Area (sqm.)	Operator
Al Nasr Mining	Qalyubia	650	Al Nasr Mining
Abu Zaabal Fertilizers	Qalyubia	1,350	Abu Zaabal Fertilizers

River Port	Location	Area (sqm.)	Operator
Al Maasara	Helwan, Cairo	63,000	Misr Aluminum
General Nile Company for River Transport	Helwan, Cairo	50,400	General Nile Company for River Transport
Coke – El Tebbin	Helwan, Cairo	58,800	Al Nasr for coke Manufacturing
Lime Stone	Helwan, Cairo	25,200	Egyptian Iron & Steel
Tenash	Giza	27,500	Citadel

Source: RTA and Egytrans

The current river transport fleet is around 328 barges. This fleet is 52% owned by public companies, 39% owned by private companies and the balance is owned by individuals. The majority of these barges is outdated and is not fully operational.

The National River Transport Company "Nile Cargo" is a promising example for the future of river transport. The company owns 31 river units that are structurally and mechanically renewed. It is currently building 62 new river units. Moreover, the company owns and operates 10 trucks that ensure door to door service for the clients. This is a new dimension in river transport which should be encouraged.

River transport differs from other transport modes in that the transport routes are not exclusively used for transportation purpose, there are many other stakeholders such as the Ministry of Water Resources and Irrigation who is the Ministry in charge of the water management in the River Nile and other canals, water bodies police under the Ministry of Interior who is in charge of security affairs, Ministry of Agriculture and Land Reclamation who is in charge of fishing resources, State Ministry for Environmental Affairs who is in charge of monitoring the water quality, local governorates who are in charge of licensing and supervising the operation of river crossing ferries, Ministry of tourism who is in charge of the supervision of tourist boats in additions to the operators of cargo fleet and other floating units. Without good cooperation with all these entities, it is difficult to have successful transport operation. RTA organization does not include a coordination department to cope with all the issues related to these entities. The Study Team recommends the establishment of a "Coordination Department" within RTA. This department will be in charge of coordination with the above mentioned organizations for smooth and efficient development of river transport activities.

Due to the low share of river transport in the cargo transport, it is not enough to construct new facilities. Education and promotion efforts are essential for attracting more clients to use river transport instead of road transport. The RTA is encouraged to establish a "Promotion Department" within its organization. The promotion department will cooperate closely with barge operators (public or private) and with terminal operators to promote river transport. It is to be noticed that RTA does not have a home page on the internet and the Study Team recommends the establishment of a home page with links to all related authorities and companies.

For the development of new modern river ports, the Study Team recommends the application of the land lord model applied successfully in marine ports where RTA build the infrastructure and contract the operators for the installation of the superstructure and the operation of the river port.

Regarding local river crossings by ferries, RTA should be in charge of setting the minimum requirements for the establishment and operation of these crossings. RTA should also monitor and supervise the implementation of such requirements to fulfill the objective of safe and reliable crossing of the river and the water canals.

3.7. The Maritime Transport Sector and the Maritime Ports

The current system of the Egyptian ports consists of two main sectors; these are the administrative sector and the service sectors.

The administrative sector comprises:

- The Maritime Transport Sector
- Ports Supreme Council
- Egyptian Authority for Maritime Safety
- Four regional Port Authorities

The service sectors include operating companies, shipping agents, etc.

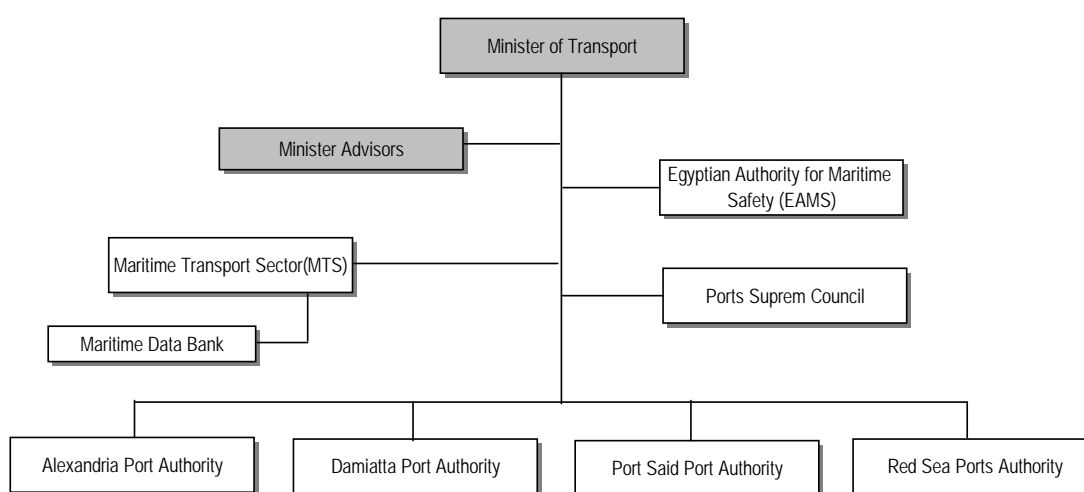


Figure 3.7.1 Organization Chart of the Entities Related to Maritime Transport

3.7.1. The Maritime Transport Sector (MTS)

The objectives of MTS are:

- 1- To set the objectives and the policies of the authorities, bodies and entities, follow-up their application and to coordinate between them.
- 2- To develop the Egyptian sea ports in order to cope with the progress of the maritime transport industry and to acquire the necessary competitiveness through updating their infrastructure and facilities as well as transforming the role of the ports from being gateways or passages to become links in the multi-modal transport chain and full logistic centers.
- 3- To coordinate with the governmental bodies, ministries, ports authorities, maritime chambers and port users in order to unify, revise and scrutiny of the resolutions, laws and regulations. To improve the efficiency of the maritime transport personnel so as to attain international standards with the aim of providing them with employment opportunities in foreign countries.
- 4- To provide access to the information technology era in the Maritime Transport Sector.

- 5- To encourage the participation of the private sector in the maritime transport activities and the ownership of vessels and floating units.
- 6- To follow-up, anticipate and consequently cope with the world maritime transport development, in order to increase the Egyptian transit trade volume.

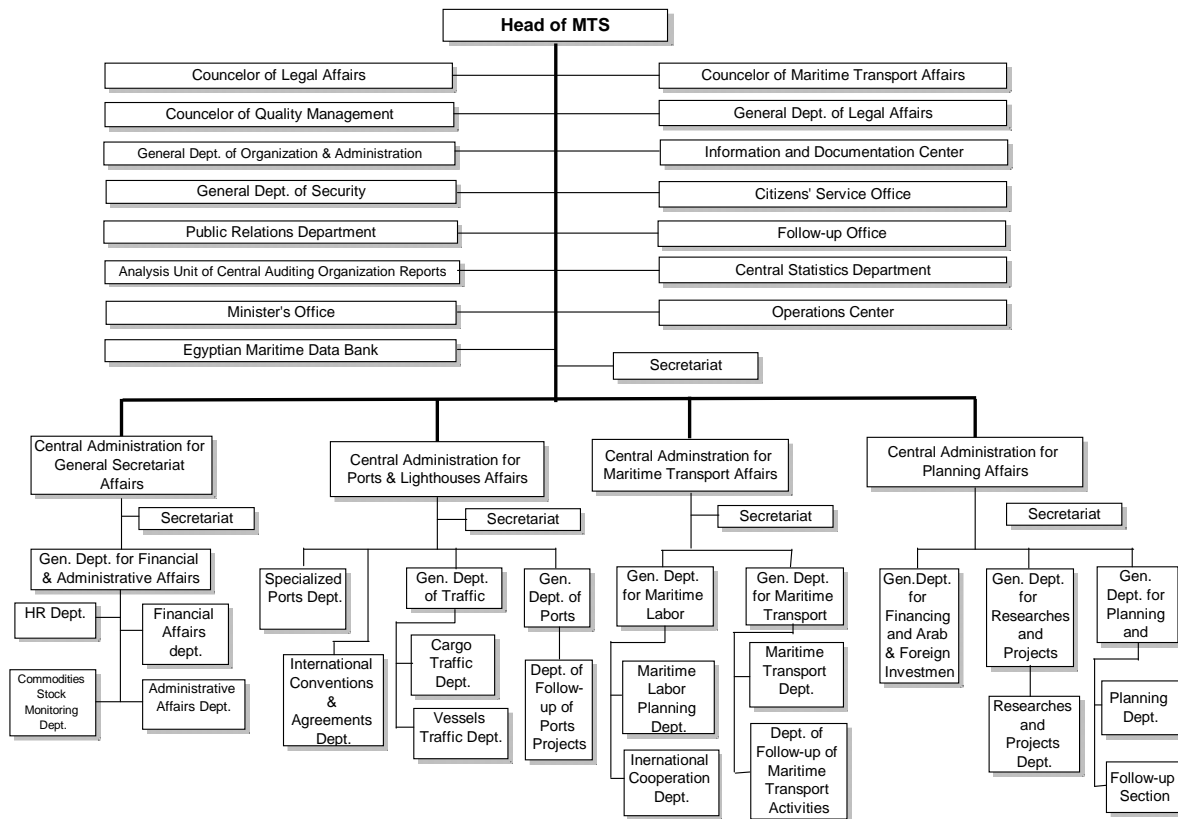


Figure 3.7.2 Organization Chart of the Maritime Transport Sector

The MTS has the Egyptian Maritime Data Bank (EMDB) as one of its departments. The data bank is the first specialized data bank in the Middle East, Africa and the Arab World. It provides a high level of information services based on accurate detailed information, regular updates efficient performance which leads to cost-effective information. EMDB is the official information source approved by the government in the maritime transport field. EMDB provides information and interactive services through its official website, issues several types of Pre-Designed reports, develops various statistical reports, conduct specialized researches and economic studies, enables direct search in databases and issues several periodicals and publications in both Arabic and English.

In the field of education and training, MTS has close relationship with the Arab Academy for Science, Technology and Maritime Transport (AASTMT) which is established under the Arab League. MTS provides financial support to the Port Training Institute of AASTMT. The Port Training Institute provide courses for training, qualifying and raising the efficiency of different cadres working in port authorities, maritime transport companies, container handling and other trades of Maritime transport.

The Maritime Research and Consultation Center (MRCC) is affiliated to MTS. The Center conducts researches and studies for MTS and the port authorities with regard to the evolution, updating and development in addition to studies of human resources development. The list of activities of MRCC

indicates its role as an in-house consulting organization for all the authorities of the maritime transport sector. The organization chart of MRCC is shown in Figure 3.7.3.

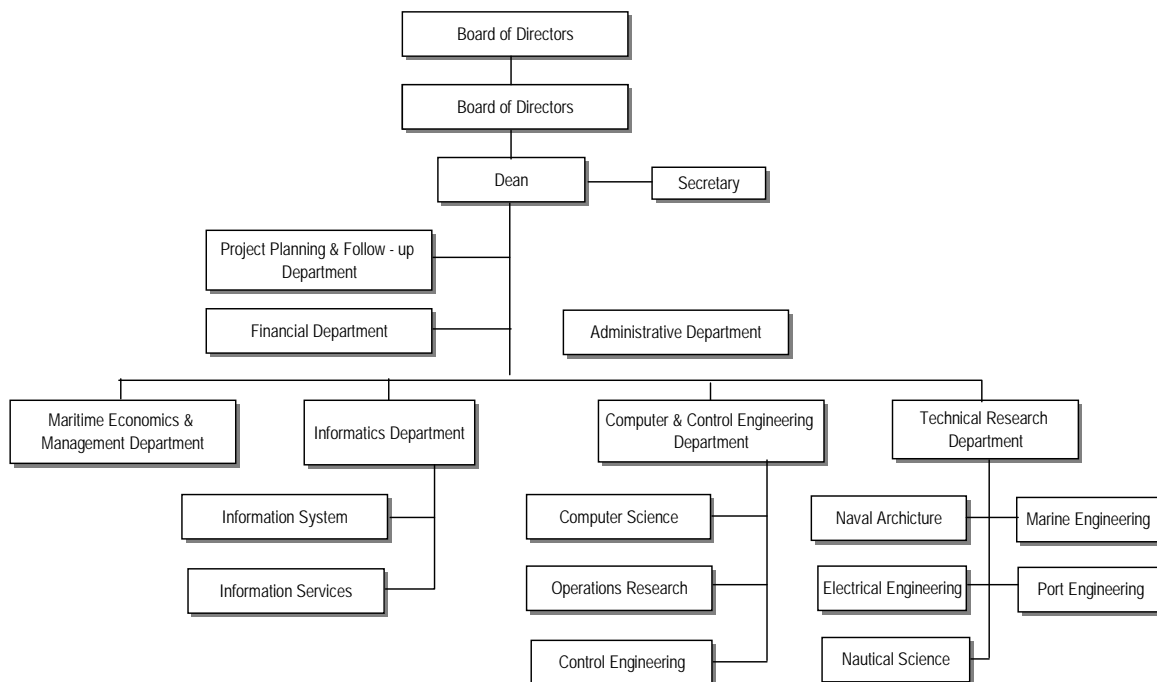


Figure 3.7.3 Organization Chart of the Maritime Research and Consultation Center (MRCC)

3.7.2. Egyptian Authority for Maritime Safety (EAFMS)

EAFMS has been established in 2004 by the Presidential Decree 399/2004 as an independent nominal Authority reporting to the Minister of Transport to replace "Ports and Lighthouses Administration" which was one of the first governmental facilities that dated back to 1830. Before 2004, EAFMS was one of the departments of MTS. However, the presidential decree of 2004 gave it an autonomous status to be able to perform its duties of inspection and certification in an impartial way. It is to be noticed that the website of MTS still mentions EAFMS as one of its department as of October 2010, but in this study we will deal with EAFMS as an independent authority from MTS. The mentioned decree specified the responsibilities of EAFMS which can be summarized as:

- 1- To regulate and to manage safety of maritime navigation in accordance to the international conventions and regulations.
- 2- To represent Egypt in international Maritime organizations and those related to maritime safety.
- 3- To provide technical cooperation with all the international ports and countries and to provide maritime assistance and services to all ships in the Egyptian territorial water.
- 4- To exchange technical, professional expertise and researches with the international and regional authorities in the field of maritime safety to upgrade the standards of securing ships and their navigation.
- 5- To plan, develop, install, monitor, upgrade and maintain lighthouses and navigational aids all over national coasts and to approve related permissions and certificates.

- 6- To monitor maritime safety standards and to apply the necessary procedures to guarantee the compliance of the requirements of safety and security.
- 7- To participate in search and rescue plans and fighting of maritime pollution.
- 8- To monitor the technical standards of Egyptian vessels and maritime units locally built or procured from abroad and issue registration certificates, sea worthiness certificates and navigational permissions.
- 9- To set tests and issue certificates of competency and marine passports and sea service certificates to seafarers.
- 10- To monitor the standards of Egyptian and foreign vessels calling at Egyptian ports and territorial waters and to issue related certificates and permissions in accordance to international standards and conventions.
- 11- To set the professional requirements and to provide work permissions for masters, officers, engineers, boilers, seafarers, fishermen, divers and other maritime professions.
- 12- To review the courses of the specialized institutes and centers qualifying ship crew in accordance to international standards
- 13- To set plans, implement means of navigational traffic and to identify waterways and passages and to issue navigational reports and alerts to maintain safety in territorial waters.
- 14- To operate, maintain, and make full use of radio and radar beacons to maintain the safety of navigation in territorial water.
- 15- To provide local or foreign training programs for the Authority's personnel.
- 16- To draft marine salvage and pollution laws, monitor their implementation and coordinate with related agencies.
- 17- To apply the necessary procedures and investigations in case of accidents and issue necessary reports.
- 18- To establish, with the consent of the Minister of Transport, joint companies to carry out tasks within its responsibilities.

EAFMS owns and operate M/S Aida IV, a forth generation modern vessel donated by Japan as a supply ship to remote lighthouses and training ship for the cadets of the Arab Academy for Science and Technology.

EAFMS operates the Gulf of Suez Vessel Traffic Information Management System (VTIMS), the Egyptian Regional Net for Differential Global Positioning System (DGPS) and the Gulf of Suez Search and Rescue System (SAR)

EAFMS operates 18 manned and unmanned lighthouses in the Mediterranean and Red Seas.

3.7.3. The Supreme Council of Egyptian Ports

The presidential decree 109/2000 and the ministerial decree 40/2000 established the Supreme Council of Egyptian Ports. The council is headed by the Minister of Transport and comprises 15 members representing all ministries concerned in maritime port affairs and three maritime experts. The main function of the council is to increase port efficiency and accordingly improve trade facilitation from the overall strategic point of view. The council has coordinating functions between the concerned public organizations. The private sector is represented in the council through the head of the Chamber of Shipping. In the council's meetings which take place every month and on special occasions, the council discusses problems of common nature and makes recommendations for their solution. The council can suggest changes in legislation and regulations and determine the tariffs of services provided by the maritime ports. Formally, the Supreme Council has no executive power, but since it is headed by the Minister of Transport, its conclusions have considerable impact and are normally implemented.

3.7.4. The Regional Port Authorities

There are four (4) regional port authorities. These authorities are directly under the Minister of Transport in the sense that the Minister of Transport appoints their chairmen and the board of directors and the port authorities submit their reports and requests to the Minister, but the Maritime Transport Sector provides liaison function between them and the Minister. Table 3.7.1 shows these port authorities and the commercial ports under each authority. The regional port authorities are government's landlord over water, land and infrastructure of the Egyptian ports. As the owner of the infrastructure, they are responsible for planning and development, maintenance (which is mainly contracted out), port traffic control and berth allocation. They also provide auxiliary services such as tugs and pilotage. These services are carried out by the Suez Canal Authority for the ports along the Suez Canal.

The Maritime Transport Sector, the Egyptian Authority for Maritime Safety and the regional port authorities, being governmental bodies, suffer considerably from the government employment conditions. These include frequent changes and political influence in appointment of top positions staff. Low salaries lead to low motivation and make working in these bodies unattractive for qualified young personnel. All this creates a considerable lack of commercial orientation.

In 2002 a study under the name of "Restructuring the Egyptian Ports" was completed by MACC-HPC. The said study gave detail analysis of the current conditions of all organizations related to Maritime Transport and recommended detail restructuring program for these organizations. The study suggested that the transition period should not exceed 5 years, but after the elapse of 9 years very little improvements have been achieved and most of the study's recommendations are still not implemented.

As noted in the above mentioned study, one considerable problem in connection with the staffing of MTS as well as the various port authorities and other institutions of the Egyptian maritime industry results from the recruitment policy for key senior personnel. A good number of them are "transferred" from the Ministry of Defense, namely the Navy, at a comparatively high age of approximately 55 years on average. Following the common retirement scheme of the Egyptian public service, these personnel only serve four to five years in their civilian position. Occasionally this period is extended if these staff continues their career as consultants on a contract basis. Also, a high fluctuation in top positions can be observed. This practice has various disadvantages:

- 1- Ex-Navy officers undoubtedly have a sound managerial and leadership background; they might, however, lack commercial, administrative and sometimes professional experience;
- 2- Their remaining service time in the maritime institutions is rather short so that their potential cannot be fully utilized;

- 3- This recruitment policy frustrates middle management cadres of the maritime institutions due to the lack of career prospective (low probability to reach "the top").

Table 3.7.1 Regional Port Authorities and Affiliated Ports

Port Authority	Affiliated Ports (Location)
Alexandria Port Authority	Alexandria Port (Alexandria Governorate) El Dekheila Port (Alexandria Governorate)
Damietta Port Authority	Damietta Port (Damietta Governorate)
Port Said Port Authority	West Port Said Port (Port Said Governorate) East Port Said Port (Port Said Governorate) El Arish Port (North Sinai Governorate)
Red Sea Ports Authority	Suez Port (Suez Governorate) Petroleum Dock Port (Suez Governorate) Adabia Port (Suez Governorate) Sokhna Port (Suez Governorate) Hurghada Port (Red Sea Governorate) Safaga Port (Red Sea Governorate) El Tour Port (South Sinai Governorate) Nuwaiba Port (South Sinai Governorate) Sharm El Sheikh Port (South Sinai Governorate)

In addition to the above mentioned commercial ports there are 52 specialized ports: 13 petroleum ports, 9 mining ports, 9 tourist ports (including 3 ports under construction) and 21 fishing ports and fishing berths. These specialized ports are also under the supervision of MTS

Until 1996, the Egyptian ports were managed by public authorities. Law 1/1996 and its amendment Law 22/1998 have permitted the Egyptian private sector to establish and operate private ports and participate in the management of the existing terminals and ports through leasing. In addition Law 1/1998 amending Law 12/1964 permitted the private sector to participate in maritime transport activities, agencies, ship maintenance and fuelling. No restrictions were imposed on the participation of the private sector in several logistics services including stevedoring, cargo handling, warehousing, maritime freight forwarding and maritime agencies.

Since the enacting of Laws 1/1996 and 1/1998, a number of private sector projects have been established. These included a new container port at East Port Said and the establishment of Sokhna Port at the southern end of the Suez Canal in addition to the container Terminal operation in Alexandria, Dekheila, Damietta and others.

Public sector companies for cargo handling that operate in Alexandria, Dekheila, Damietta and Port Said West are under the Holding Company for Maritime and Land Transport which is under the Ministry of Investment.

In spite of enacting Laws 1/1996 and 1/1998, and the adoption of the landlord model of business, the maritime transport sector and its related logistics services suffer from conflicts of interests as port authorities are the owners, regulators and performers, all at once (port authorities provide port services such as pilotage, safety and tugboat, and are owners of companies that provide stevedoring activities).

Moreover, the shared ownership between the state operating companies and the port authorities (Alexandria Port Authority owns 40% of Alexandria Container Handling Company and Port Said Port Authority owns 39% of Port Said Container Handling Company) blurs the boundaries between regulatory and commercial functions, inhibit competition and limit the incentives to maintain and improve port facilities.

Port authorities are the highest authority in their respective ports. They have administrative control over all other agencies operating within the port and supervise performance and the flow of processes. The Presidential Decree 110/2000 strengthened the authority of the chairman of the port in terms of supervision over all the operating agencies inside the port. The chairman of the port authority is authorized by the Minister of Transport to negotiate and sign agreements with private sector that extend up to 30 years. Agreements that extend beyond the 30 year period are within the authority of the Minister of Transport. The agreements between the port authority and the terminal operator can have one of the following forms:

- 1- The terminal operator rents the terminal from the port authority against a set rental fee and undertakes all works necessary to make the terminal operative.
- 2- The port authority undertakes the construction of the infrastructure and the operator constructs and operates the superstructure.
- 3- The port authority undertakes the development of the infrastructure and the superstructure and the operator rents the terminal and operates it.

Port fees and port services dues are set by ministerial decrees, regardless of actual costs and quality of the provided services (the exception is Sokhna Port). This means that ports are not free to set competitive charges independently which inhibit competition and efficient management.

To improve the competition of the Egyptian Ports in the international trade, the Study Team set forth the following proposals:

- 1- The top staff in maritime transport bodies should be selected through competitive methods open for both military and civilian candidates. This will motivate the candidates to improve their technical, business and managerial abilities.
- 2- An independent regulatory body should be established with clear mandate to avoid unnecessary interventions, which could deter private investment.
- 3- The port authority should have more control on all activities within the port.
- 4- Each port authority should have financial independence to enable it to spend their budget timely and efficiently.
5. Laws and regulations should be reformed to enhance competition and to open all port activities for private service providers.
6. The service pricing by ministerial decree should be replaced by more flexible free market system that takes into consideration the difference in the quality of the service at each port.
7. Introduction of modern technologies such as computers and Electronic Data Interchange (EDI) should be enhanced

3.8. The National Authority for Tunnels

In 1981 the Minister of Transport, Communication and Maritime Transport issued the Ministerial Decree No. 199 to establish an independent organization within the Egyptian National Railway to supervise the project of construction of Line No.1 of Cairo Metro. In 1982, the Ministerial Decree No. 27 gave that

organization the name of "The Executive Organization for Greater Cairo Metro". In 1983, Law No. 113 established the National Authority for Tunnels and delineated its responsibilities as:

- To conduct studies and technical and economic research related to metro construction by its own resources or with cooperation with other local and foreign entities.
- To conclude contracts with local and foreign experienced entities for the design and implementation of the project.
- To formulate the projects specifications and preparations for implementation.
- To implement metro projects by its own resources or with the cooperation with other specialized entities and to deliver the project after completion to the organization in charge of operation.

So far NAT has implemented several projects including Metro Line No. 1 and Metro Line No.2 and is currently implementing Metro Line No.3 and preparing studies for Metro Line No. 4. In addition to Metro Lines, NAT has implemented road tunnels. It is to be noticed that NAT does not have its own revenue because metro operation is the responsibility of the Egyptian Company for the Metro Management & Operation (ECMMO). This means that all the budget of NAT is from the Ministry of Finance. Together with other organizations, NAT has established the Egyptian Company for Tunneling Construction, a contractor for the construction of tunneling and other transportation projects.

The organization chart of NAT is shown in Figure 3.8.1.

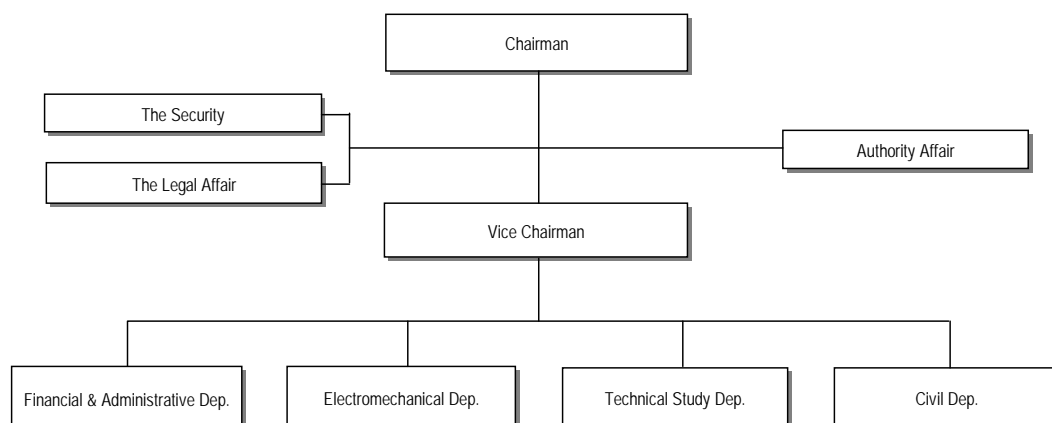


Figure 3.8.1 Organization Chart of NAT

3.9. General Authority for Land Ports and Dry Ports (GALDP)

Previously land ports (at the border crossings with neighboring countries) were administrated by different entities such as Ministry of Defense, Ministry of Tourism and the Governorates. In 1996, the Presidential Decree No. 349 established the General Authority for Land Ports under the Ministry of Transport to manage the land ports in a similar way to sea ports which is also under the Ministry of Transport. According to the said law, the responsibilities of the Authority are:

- To coordinate the various activities of the entities working at the land ports.
- To manage the movement of all types of vehicles within the land ports and to monitor its numbers.

- Planning of routs, roads and platforms and equip them with the required facilities for current and future demand.
- Construction and maintenance of buildings, parking facilities and other facilities.
- Provide technical management of vehicle movement to avoid congestion and install of direction signs, lighting and communication means.
- To prepare plans and programs for continuous improvement through the introduction of modern systems and technologies.
- To delineate the tariff of the services provided by the Authority after approving it from the cabinet of Ministers and give advise regarding the fees applied by other organizations working in the land port.
- To supervise the security of the ports areas and its related establishments.
- To provide administrative supervision for the personnel working in the ports area from other governmental bodies.

In 2004, the Presidential Decree No. 225 added the supervision of dry ports to the responsibilities of the Authority and thus changed its name to the "General Authority for Land Ports and Dry Ports" (GALDP).

Currently GALDP is supervising 6 land ports, one at the border crossing with Libya, one at the border crossing with Gaza Strip, 2 at the border crossing with Israel and 2 at the border crossing with Sudan. GALDP role at the land ports is similar to the role of sea port as coordinating body between the different entities working at the land port such as passport control, custom procedures, quarantine and security. The main difference is that there is no transport modal transfer at land ports while there are modal transfer at sea ports.

From the legal point of view the only defined dry port is Bassteel Dry Port in accordance to the Presidential Decree 394/2006 but it is still not operating due to bending legal conflict between the Egyptian National Railway (ENR), the owner of the land, as one side and the contracted company as the other side.

Although there are six facilities which referred to as dry ports, one in the 10th of Ramadan City, two in 6th of October City, one in Alexandria and two along the Cairo/Ismailia desert road near the ring road, they are in fact "bonded warehouses" established through license from the Custom Authority. Out of these six facilities, five are owned and managed by private sector. Only the one at the 10th of Ramadan City belongs to the Port Said Containers & Cargo Handling Company which is one of the subsidiaries of the Holding Company for Maritime and Land Transport. GALDP has no managing role in all these facilities. In addition, there is one depot with customs clearance at El Nobariya City. A legal reform is required to transfer these facilities from the current status of "bonded warehouses" to "Dry Ports". There are 16 new dry ports all over the country in the planning stage.

So far there are neither logistics centers nor distribution centers in Egypt. Since the Presidential Decree No. 349/1996 and its modification by the Presidential Decree No. 225/2004 did not mention logistics or distribution centers, a legal modification will be required to establish them under GALDP. Another alternative is to formulate a legal framework for the establishment and operation of logistics centers and distribution centers by private sector.

Figure 3.9.1 shows the organization chart of GALDP.

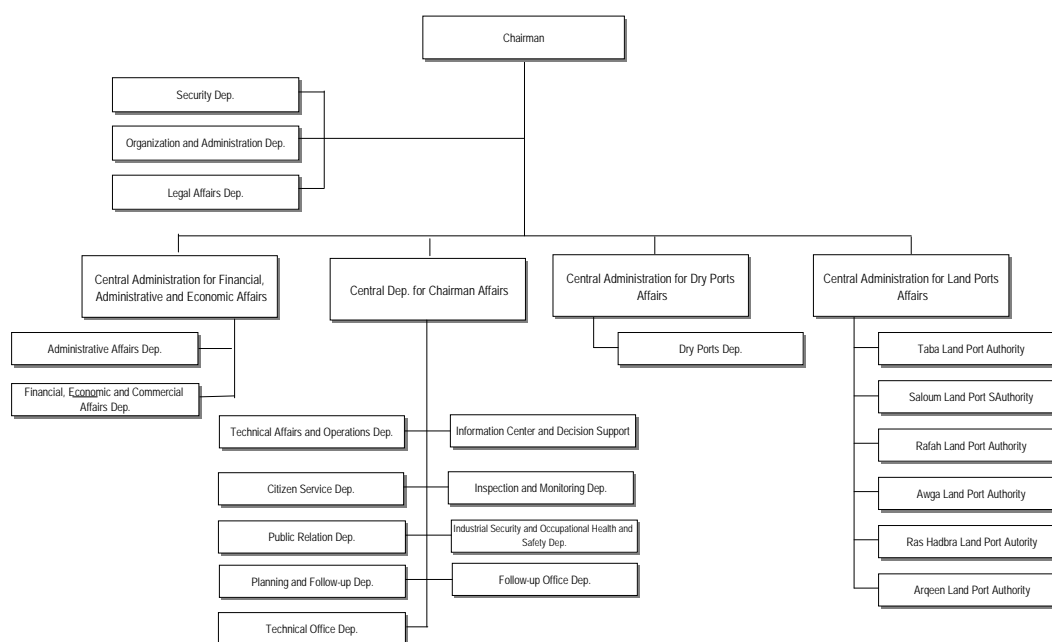


Figure 3.9.1 Organization Chart of the General Authority for Land Ports and Dry Ports (GALDP)

3.10. Holding Company for Roads, Bridges and Land Transport (HCRBLT)

In 1963 four public sector contracting companies were established under the Ministry of Transport to perform contracting works required by the various authorities of the Ministry. The four companies were named:

- General Nile Company for Roads and Bridges
- General Nile Company for Road Construction
- General Nile Company for Desert Roads
- General Nile Company for Construction and Pavement

Since the establishment of the General Authority of Roads and Bridges (GARBLT), these four companies were under the supervision of the Chairman of GARBLT. In spite of their names which indicate that the four companies are specialized in road and bridges construction, they have been engaged in other works such as airports, railways irrigation networks drainage facilities and others. However, their main client was GARBLT itself which means that there has been always some conflict of interest of some sort. Contracting procedures and obligations between GARBLT and the four contractors were relaxed regarding price changes and duration of project implementation. In some cases even personnel movements between GARBLT and these contractors and visa versa have taken place.

Although most of ownership and management of public sector companies were transferred from the various ministries to 17 holding companies under the Ministry of Public Enterprise in the beginnings of the 9th decade of the last century and then to the Ministry of Investment, the above mentioned four companies remained under the Minister of Transport.

In 2002, the Holding Company for Roads and Bridges and Land Transport were established by the Presidential Decree 274/2002 under the Minister of Transport and the ownership of the four companies

was transferred from GARBLT to the HCRBLT. The General Assembly of HCRBLT is nominated by a Prime Minister Decree and is chaired by the Minister of Transport. The Board of Directors is nominated by the General Assembly based on a suggestion from its chairman. The General Assembly of each of the four subsidiary companies is chaired by the chairman of the HCRBLT and its members constitute of the members of the board of HCRBLT in addition to members selected by the general assembly of HCRBLT and two members selected by the labor syndicate committees. Due to the severe shortage of qualified personnel in the field of transport, the General Assembly and the board of directors of the holding company and its subsidiaries include several members from GARBLT top management which again raises some concern about conflict of interest.

The paid capital of the four subsidiaries is shown in Table 3.10.1.

Table 3.10.1 Paid Capital of the subsidiary companies of HCRBLT

Company	Paid capital (Million L.E.)
General Nile Company for Roads and Bridges	100.7
General Nile Company for Road Construction	300.4
General Nile Company for Desert Roads	81.4
General Nile Company for Construction and Pavement	34.9
Total	517.4

As can be noticed from the above table, the capital of each of the subsidiaries is small, in particular the general Nile Company for Construction and Pavement, which restrict their ability to bid in large scale projects. In addition each of the four companies has its own offices, workshops, and asphalt mixing stations all over the country which means an increase in their running costs. The subsidiaries have no business promotion departments and they do not implement aggressive business promotion policies. The subsidiaries suffer from outstanding debt unpaid by their clients which results in borrowing from banks and the payment of interest to the banks. The subsidiaries have very large employment of more than 13,000 in the four companies. However, due to the low salaries and the appointment of personnel from outside of the companies to the top management positions, capable personnel leave the subsidiaries to other private contractors. In some cases, the subsidiaries employ local consulting firms to assist them in design and project supervision. The use of IT is still very limited and the holding company and its subsidiaries do not have home pages at the internet. Since 2005, the policy of the Ministry of Transport has become equal tendering treatment between public sector companies and private companies in order to put pressure on the public sector companies to operate on sound financial basis.

The foremost objective of establishing the Holding Company for Roads, Bridges and Land Transport (and any other holding company in Egypt) is to restructure its subsidiaries so as to operate on sound financial basis and/or prepare them for privatization. To attain this objective, the Study Team recommends the following:

- To merge the four companies in two so as to have reasonable capital.
- To merge and/or sell out the duplicated offices, workshops and asphalt mixing stations wherever they are across the country.
- To make use of each other resources including human resources so as to attain maximum working load for the merged companies.
- To give more importance for human resources development.

- To increase capital, the merged companies may issue stocks for trade in the stock exchange market. The performance of the stocks is a good indicator for the companies' performance.
- The general assemblies of the holding company and its subsidiaries should not include any member from the clients of companies (particularly from GARBLT) to avoid conflict of interest.
- The debtors (mostly governmental organizations) should pay their accumulated debt to the subsidiaries to improve their financial status.
- Top management posts should be filled from within each company to motivate its employees.
- The holding company and its subsidiaries should pursue aggressive promotion policies to get projects into Egypt, the Arab World or Africa. Africa is expected to have large scale projects in roads and infrastructure and this constitute good chance for capable contractors.

3.11. Egypt National Institute for Transport (ENIT)

ENIT was established by the Presidential Decree 194/1983, to be a specialized transportation institute under the Ministry of Transport. The overall objective of ENIT was modified by the Presidential Decree 73/2001 to be in charge of upgrading the scientific level of the employees of the authorities and organizations of the Ministry of Transport and to prepare specialists in the fields of railways, roads, air, marine and river transportation in addition to other fields related to the activities of the Ministry. The objective includes also preparations of studies and conducting advanced scientific and applied researches requested by the authorities, companies and the entities of road, air, marine and river transport, supervise scientific activities and organize training seminars. The decree specified the activities of ENIT to be:

- 1- To develop and qualify specialists and technicians in the fields of road, air, marine and river transportation according to the needs of the mentioned transport sectors so as to be qualified in the planning and technological and economical aspects of transportation.
- 2- To organize scientific and practical courses for the employees of the different transport sector to upgrade their efficiency and to prepare new generations specialized in the fields of planning, organization and formulation of these transport sectors.
- 3- To conduct scientific and applied research related to the activities of the different transportation fields and recommend solutions for the problems facing these activities.
- 4- To provide the service and production activities of the various authorities and organizations of the Ministry of Transport with updated scientific and technical methods for development and improving their performance.
- 5- To provide scientific, technical and economic consultation to the various transport sectors and to conduct the required related studies and research.
- 6- To join other production and service organizations of the country in the process of technology transfer from abroad and local sources related to transport activities.
- 7- To dispatch scientific and technical missions to other countries or within Egypt for qualification in transport science and technology.

- 8- To prepare scientific library in the subjects of transportation science and related other subjects and to establish a scientific documentation, translation and publishing center for all scopes and activities of transportation.
- 9- To provide its services to others including Arab and Foreign countries after the approval of concerned organizations.
- 10- To support the implementation of projects and works of the authorities and organizations of the Ministry of Transport and to provide them with required plans, designs and contracting documentations and implementation supervision.

ENIT offers 3 post graduate diplomas in transport policies and planning, transport economics and multimodal and logistics after studying the related courses for two years. In addition, ENIT arranges short term training programs (5 days) in different topics related to transportation.

The total number of graduates from the post graduate diploma courses and mean number per year in the period of 11 years between year 2000 and 2010 are shown in Table 3.11.1.

Table 3.11.1 Number of diploma from ENIT

Diploma	Total Number	Mean Number per year
Transport Polices and Planning	26	3.36
Transport Economics	26	3.36
Multimodal Transport & Logistics	5	0.45

The total number of trainees in the short term program and the mean number per year in the period of 9 educational years between 2001/2002 and 2009/2010 are shown in Table 3.11.2.

Table 3.11.2 Number of short term trainees

Course	Total Number	Mean Number per year
Specialized Transportation	787	87.4
Safety and Professional Health (2001/2002 ~2005/2006)	786	157.2 (5 years mean)
Computer	1181	131,2

Figure 3.11.1 shows the organization chart of ENIT.

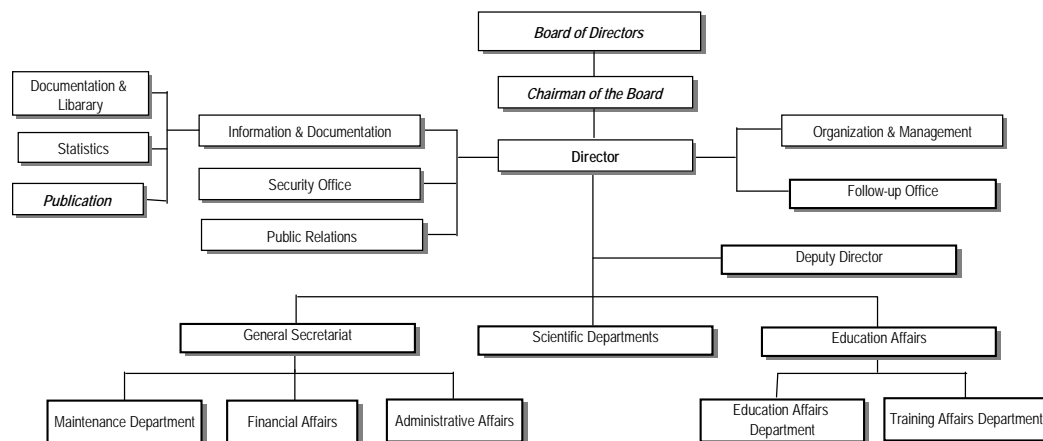


Figure 3.11.1 Organization Chart of the Egyptian National Institute of Transport

The above stipulated activities indicate that ENIT has been established to act as:

- 1) A training, qualification and accreditation organization for all fields of transportation.
- 2) An academic institute for post graduate education and research in transportation fields,
- 3) A consultant for the Ministry of Transport and its organizations.
- 4) An organization for the dissipation of information to all the organizations of the Ministry of Transport.

In spite of these wide and diversified tasks, ENIT has not been provided with the required support from the consecutive ministers. Allocated fund has never been adequate, qualified staff has been seeking better paid job opportunities in Arab countries and/or local private sector. Even allocated office space has been eroded by the demand of the steadily growing minister's office which is housed in the same building.

With regard to its role as a training, qualification and accreditation organization, ENIT provides short term training courses for a period of 5 days each in the three fields of transport, safety and professional health and computers. ENIT prepares its annual program for the short term training courses and sent it to the different organizations of MOT and these organizations appoint their candidates to attend the courses. These courses are introductory in nature and do not lead to particular qualification nor accreditation.

To properly determine the nature and magnitude of the required training, it is necessary to carry out a manpower resources analysis. Such analysis, which should be conducted on the level of the whole ministry and its organizations, will identify the number of the required trainees in each field and the level and contents of the training required for them. So far MOT has not conducted such analysis which means that ENIT training courses do not necessarily conform to the real training needs of the Ministry.

To attain international standard and accreditation, ENIT should conclude an agreement with one of the internationally acclaimed institutes in the field of transport training to use its curriculums for the training, qualification and accreditation of ENIT trainees.

Regarding its role as post graduate institute, ENIT confers diploma in transport polices and planning, transport economics and multimodal transport & logistics after two years of two days per week courses. The diploma is similar to other diplomas courses arranged by other universities and it is not recognized by

any international university or by any international accreditation organization. Whether the Ministry of Transport benefits from the holders of these diplomas or not is an open question.

Regarding transportation research, the limited budget of ENIT and the lack of research equipment do not enable ENIT of publishing research papers in international scientific magazines.

Regarding its role as a consultant for the Ministry and its organizations, ENIT has conducted, or participated in, about 34 studies during the period from 2000 to 2010. These studies covered traffic studies, safety studies, transportation cost studies cargo transportation studies. These studies covered the modes of roads, railways and inland water transport. ENIT did not conduct studies related to air transport or to marine transport. The main reason could be that air transport and marine transport have their own institutes.

Regarding the dissipation of information, it is hard to find evidence of ENIT activities in this arena. ENIT has no website, does not arrange seminars and does not publish periodicals in the form of magazines or newsletters.

Since upgrading and development of human resources is a pivoting factor in the development of all transport activities in Egypt particularly to face the challenges of international competition, the Study Team proposes the following general recommendations:

- (i) To increase incentives to attract and retain competent staff. The lack of staff is apparent from the fact that the directors of ENIT for the last 12 years have been appointed from outside of ENIT.
- (ii) To provide updated training materials including modern teaching aids (hardware and software), and provision of adequate space for staff and training.
- (iii) To integrate training assignment into career patterns of the trainees
- (iv) To provide ENIT staff of training in international acclaimed institutes to be able to provide internationally accepted accreditation.
- (v) To improve procedures for monitoring and modifying courses contents to meet the changing requirements within each mode of transport.
- (vi) To improve procedures for evaluating of training output and linkage with on-the-job training.
- (vii) Increasing the budget allocated to ENIT to enable it to deliver its objectives. The current budget of ENIT is in the range of L.E. 1.5 million per annum.

Since increasing the budget of ENIT from the national fund is not an easy task, MOT may consider the establishment of a Transport Training Fund that can be financed through contribution from private and public enterprises as well as the training components financed by international donors. Such fund could enable the coordination of the training efforts and be a tool to ensure that the quality of the training programs remains consistent. It could also provide a medium for a strong partnership between the public and private sectors for the establishment of a national scheme for skill standards, testing and certification. Several countries including Malaysia and South Korea have used this form of fund mobilization for some time. Malaysia, for example, has issued a law of Human Resources Development that requires companies who employ 50 and more workers to contribute 1% of their pay roll to the Human Resources Development Fund. For companies who have fewer workers, tax deduction is used for encouraging training.

3.11.1. Transport Management Training

ENIT is not providing transport management training and other institutes in Egypt is providing general management courses as a prerequisite for the promotion to the general manager level within the governmental hierarchy. Transport management could cover issues (policy, planning and management) common to road, rail, river, urban transport as well as the management of sea ports, river ports and airports and the different modal fleets (ocean ships, and river boats, goods and passenger vehicles).

Such training should be aimed not only at policy level officials and senior managers who should function with more performance oriented attitudes but also at middle level managers who need to expand their specialized skills and are engaged in matters such as procurement, marketing, financial analysis, project formulation and evaluation, personnel development, contracting, transport costing and pricing, logistics and physical distribution management.

3.11.2. Logistics Training

At present, ENIT has no programs for logistics training. Qualified human resources are the most important element in logistics development. ENIT should consider the introduction of logistics training programs through the cooperation with internationally recognized institute in logistics training and accreditation.

CHAPTER 4: ORGANIZATION AND RESPONSIBILITIES OF OTHER TRANSPORT RELATED ENTITIES

4.1. Ministry of Housing, Utilities and Urban Communities (MOHUUC)

The Ministry of Housing, Utilities and Urban Communities is the Ministry in charge of planning and implementation of housing, water supply, sewage and urban development. Although its responsibilities do not include the construction of transport projects, MOHUUC has constructed some transportation related projects because of their direct effects on urban development. In this section we will consider the activities of MOHUUC that has direct effects on the national transport activities.

The organization chart of MOHUUC is shown in Figure 4.1.1.

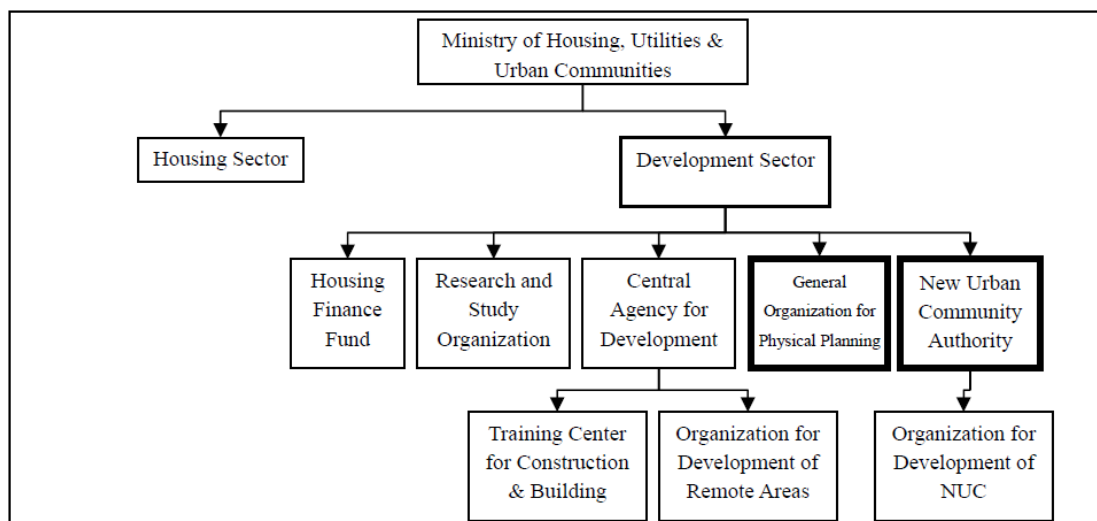


Figure 4.1.1 Organization Chart of MOHUUC

The General Organization for Physical Planning (GOPP) is the organization in charge of formulating the general policy for planning and sustainable urban development; setting up plans and programs at the national and regional levels and approving urban plans at the local levels.

In 2008 Law No. 119 was issued to regulate construction works in Egypt. Chapter 1 of this law dealt with the issues of physical planning. Article 3 of this law stated that a Higher Council for Planning and Urban Development should be established under the chairmanship of the prime minister. Article 4 delineated the responsibilities of that higher council to include:

- To decide the objectives and the general policies for planning, urban development and civil coordination on the national level.

- To coordinate between the ministries and other organizations concerned with urban development and state owned land use for the preparation and implementation of the Strategic National Plan.
- To decide the special value zones and approve of the regulations and standards for selecting these zones and the programs for their preservation and priorities and mechanisms for projects implementation on these zones and sources of finance based on the recommendations of the Minister in charge of cultural affairs.
- To propose and express opinion in the drafts of laws related to urban development.
- To evaluate the results of implementing the Strategic National Plan and the Strategic Regional Plans and enable development partners to implement their role and responsibilities for attaining the national objectives.
- To approve standards and guidelines prepared by the National Organization for Civil Coordination.
- To decide the regions which require re-planning and approval of their plans, priorities programs, implementation mechanisms, and finance sources based on the proposals of the concerned governor.
- To approve plans, programs, priorities, implementation mechanism and finance sources for the new urban development projects to be established outside the approved boundaries of cities or villages in accordance to the strategic plans of the governorates and planning regions as approved into the national strategic plan. The Council will take the necessary measures to issue the presidential decree required for the establishment of these projects.
- To collect all the stipulations mentioned in the related laws and regulations required for getting the construction license and issue a ruling that substitute getting approvals from the different authorities.

In the same year the Prime Minister issued Decree No. 298 for the formation of the Higher Council for Planning and Urban Development. According to this decree, the Ministers appointed for membership of the council are the Minister of Defense and Military Production, the Minister of Culture, the Minister of Investment, the Minister of Housing, Utilities and Urban Development, State Minister for Economic Development and the State Minister of Local Development. In addition to these ministers, the other members of the Council are the Chairman of GOPP, the Director of the National Center for Planning the Usage of State Land and other related members and experts. The council membership does not include any representative from the Ministry of Transport. The Prime Minister Decree No. 2133/2009 dealt with the formation of 6 sub-committees as follows:

- 1- Sub-committee for the planning of urban development activities.
- 2- Sub-committee for altering land use
- 3- Sub-committee for enforcing or waiving some or all the conditions of building and planning in the plans of cities and villages.
- 4- Sub-committee for infrastructure
- 5- Sub-committee for social services
- 6- Sub-committee for culture and civilization coordination

The Ministry of Transport is represented only in the sub-committee of infrastructure by the vice chairman of TPA.

In this regard, the Study team would like to put forward the following discussion:

- 1- According to Egypt Vision 2050, most of new communities will be constructed in desert area. This is a very justified approach taking into consideration the limited available land in the Nile Delta and the Nile Valley where almost all the agricultural activities are concentrated there. If the expected population increase is accommodated in the Nile delta and the Nile Valley it will lead to catastrophic consequences. Recognizing this fact will mean that such huge scale development effort in the desert will need an efficient transport system to encourage the population to transfer to the desert without feeling isolated from the old land proper. Accordingly, for such development in the desert, transportation will require huge investment and thus should have more weight in deciding the priorities of implantation.
- 2- Transportation projects require vast land area and thus should be addressed as early as possible in the process of planning of the new communities. It worth noting that the lack of reliable transportation system to and within the new communities around Greater Cairo has been one of the main reasons that delayed the development of these communities as was targeted at the onset of their planning horizon.
- 3- Transportation has profound effect on accelerating industrial development in remote areas. In fact transportation has direct impact on production at remote locations due to three effects: Lowering production costs, increase producer prices, and encourage investment. Transport improvement can serve as a catalyst that promotes a virtuous circle of economic development. Figure 4.1.2 shows a schematic representation of these processes.

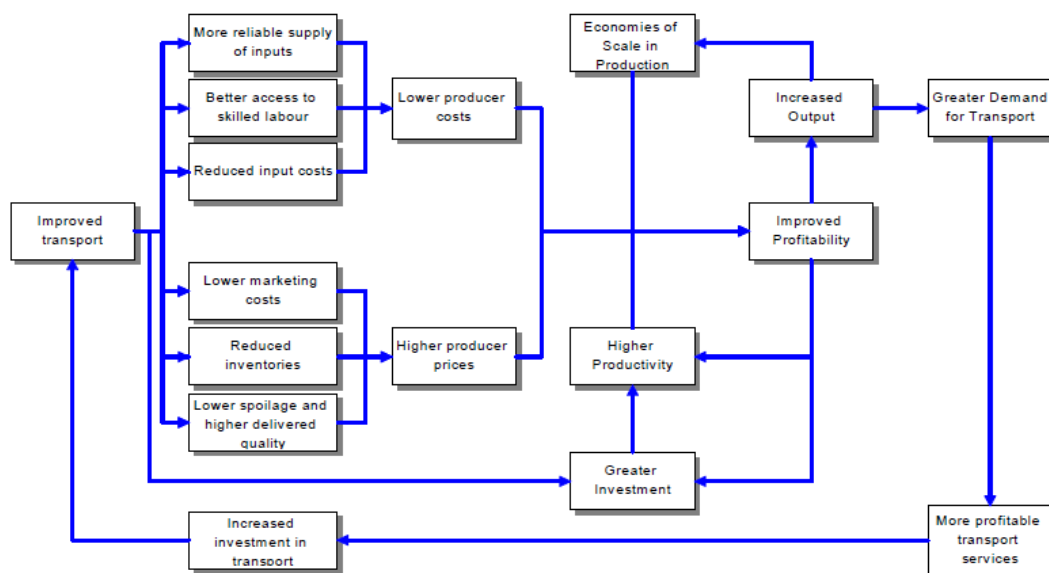


Figure 4.1.2 Schematic presentation of the relationship between transport and economic development

- 4- Multi-modal transport and new logistics trends require that transportation of raw materials, finished products and product distribution are key factors in investment decision making. It means planning

transport system at an early stage will help to solve the two most important issues of development, viz. attracting investment and attracting inhabitants.

Since the Minister of Transport is not a member of the Higher Council for Planning and Urban Development and MOT is represented only in the Sub-committee for infrastructure, which indicate a minor role in the development process, and since TPA will own and operate the national transport model, close cooperation between GOPP and TPA will be vital for the success of the development program. Establishing the national transport model means that all new transport project should be incorporated into that model for accessing the project effect on the national transport network and also to check the feasibility of the new project. Accordingly, the Study Team suggests one of the following solutions:

- a) Issue a new Prime Minister Decree to add the Minister of Transport to the Higher Council for Planning and Urban Development.
- b) Having the Ministry of Transport (TPA) represented in the Board of directors of GOPP.
- c) Having the GOPP represented in the Board of Directors of TPA.
- d) Applying the three proposals mentioned above.
- e) Establishing a standing committee between TPA and GOPP together with other transport planning specialists that meets regularly for exchanging views and decide the action for integrating transportation planning into the new development process.

As an example that demonstrates the need to coordinate land use and transport, Japan in 2001 consolidated the Ministry of Construction and the Ministry of Transport in one Ministry under the name of Ministry of Land, Infrastructure and Transport. It should be noticed that the Ministry of Transport of Japan before and after the consolidation controlled all transport related activities including civil aviation and tourism.

The Central Agency for Development of MOHUUC plans and implements some transport projects which they consider as essential for new urban development then after completion, the management and operation of these projects are transferred to the Ministry of Transport. Examples of these projects include Damietta Port, Cairo Ring Road, the Northern Coastal Road and others. In some cases, such as Cairo Ring Road, the Ministry of Transport made major endeavor to upgrade the level of service to the required one. To avoid such unnecessary effort and spending, it is recommended that the Central Agency for Development either transfer the project budget to the Ministry of Transport and ask them to implement the project or, if such arrangement is not possible, to get technical approval from MOT before implementing the project and implement it under joint management team from MOHUUC and MOT.

The National Housing and Building Research Center of MOHUUC, in addition to issuing the codes for buildings, it also issues the Code for the Construction of Roads and Bridges. To update this code, the center formulates a committee that includes representatives from the General Authority of Roads, Bridges and Land Transport and other experts from the universities. The latest code for road construction is Code No. 104 issued by Ministerial Decree No. 369/2008 and it has 10 volumes. The code for steel structures including steel bridges is code No. 205 issued by Ministerial Decree No. 279/2001. The code for reinforced concrete bridges is not yet ready. The Center also issues model contract forms for consulting contracts and a model for the General Conditions of construction contracts.

4.2. Suez Canal Authority

The Suez Canal Authority (SCA) is the authority responsible for the operation and maintenance of the Suez Canal which is one of most important links in the global maritime network. The SCA provides all the required services for safe transit of the vessels between the Red Sea and the Mediterranean Sea in addition to pilotage to the vessels departing all arriving at the West Port Said Port and the East Port Said Port. The earnings from the Suez Canal are one of the main sources of foreign currencies that help improving the trade balance of Egypt.

Since the Canal constitutes a water barrier between the main land (the Nile Valley and its Delta) and the Sinai Peninsula, the SCA compensates by operating 36 ferry boats that cross the Canal at 14 locations in addition to the construction and operation of Ahmad Hamdy Tunnel that passes under the Canal to the North of Suez City. The SCA constructs and maintains the roads on both banks of the Suez Canal.

The SCA has several affiliated companies such as Timsah Shipbuilding Company, Canal Harbor & Great Projects Company, Canal Mooring & Lights Company, Canal Naval Construction Company, Canal Rope Company, Suez Shipyard Company, the Port Said Engineering Works Company and Canal Company for Nile Shipyard. As can be seen, the SCA concentrates its activities to those directly related to its main objectives of ship transit.

Although the Suez Canal is one of the main maritime cargo routs in the World, the SCA does not make use of that strategic location in the field of international trade and logistic services. The transshipment hub port of East Port Said is one step in the right direction of exploiting the benefits of the location for international trade. The area around the Canal has the potential to be one of the main centers of international trade and logistic services on a scale comparable to that of Singapore.

In the coming years, the Suez Canal will face several challenges for its role as the shortest route for trade between East and West. These challenges are:

4.2.1. The land bridge across North America

There are three cargo railways that connect the West Coast of North America to its East Coast. These railways are exclusively transporting containers that reach the West Coast by container carriers arriving from East Asian countries with the East Coast as the destination of its cargo. Part of these containers is reloaded for shipment to West European ports. Other land bridges are planned across Canada and Mexico.



Figure 4.2.1 Land bridges across North America

4.2.2. The Panama Canal Expansion Project

The undergoing project of expansion of Panama Canal is bound to attract part of the shipping traffic between the East Asian countries and the East Coast of the USA and West European countries at the expense of transit through the Suez Canal.

4.2.3. Northern Sea Route of Russia

The global warming is melting the ice cover of the Northern Sea and thus enabling using it as a marine route between North Europe and Japan. Although this route passes through one of the most hostile climatic regions in the World, its attractiveness lies in its shorter route compared with the South route passing through the Suez Canal.



Figure 4.2.2 North Sea Maritime Route

4.2.4. The Eurasian Land Bridge

Similar to North American land bridge, proposals for the construction of railway lines between China and Europe are under consideration. These land bridges will be considered as a revival of the old Silk Road but with modern technology. Its attraction lays in the provision of door to door land transportation.

Eurasia: main routes and selected secondary routes of the Eurasian Land-Bridge

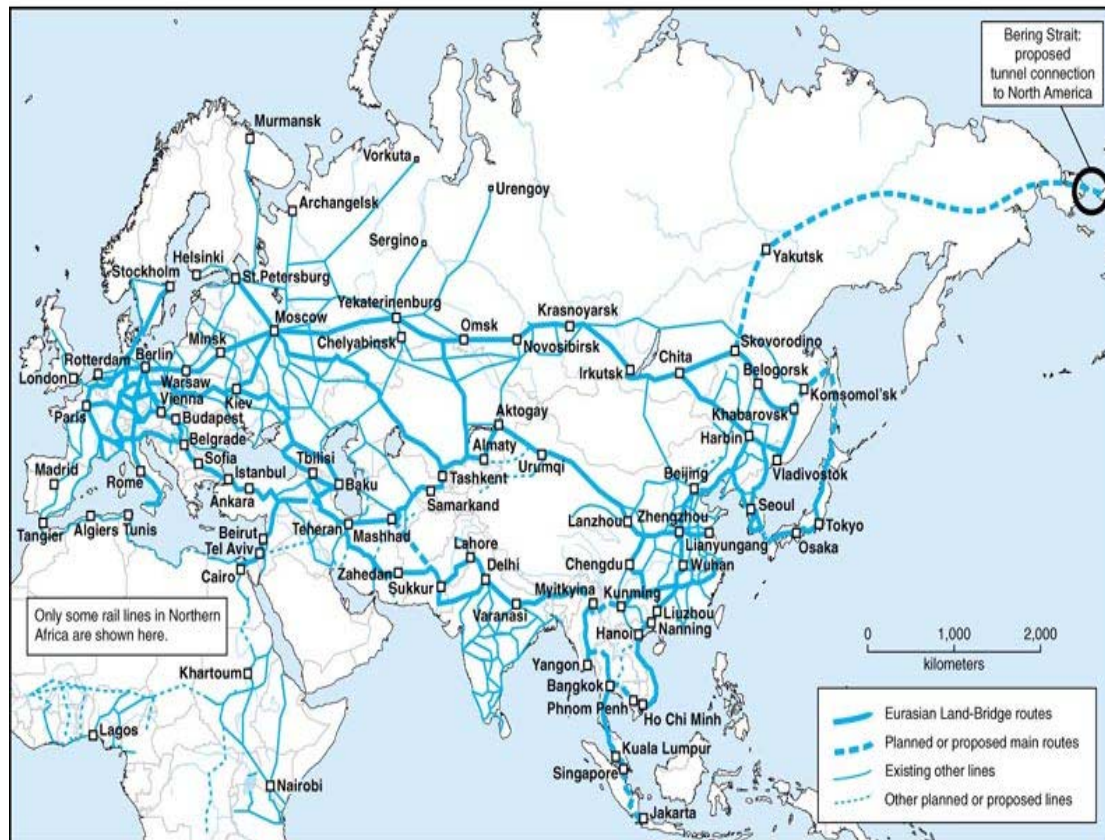


Figure 4.2.3 Routes of the proposed Eurasia Land Bridge

4.2.5. Trans Global Highway

The proposal of construction of trans global highway which connects America and Asia through a tunnel across the Bering Strait which could create a highway, railroad, fresh water, oil and gas pipelines and communication crossings, thus providing door to door truck service through out the globe will has negative effects on marine transport and consequently on the role of the Suez Canal. Although this project is still a fare shot in the future, the Suez Canal should be prepared to have countermeasures to sustain its role in international trade.

To succeed in such global competition, the Suez Canal should assert itself as one of the main maritime and logistics hubs in the World trade. In addition to its direct benefits to the Egyptian economy, such role could have profound effects on the transportation network in Egypt and could constitute a platform for the development of Sinai Peninsula. To attain such target, innovative human resources are the most important factor.

In spite of its positive role in international maritime arena, the Suez Canal hinders coastal navigation between the Egyptian ports of the Red Sea and the Mediterranean Sea by charging transit fees on coastal

ships passing through it and thus renders land transport between these ports more attractive. Coastal navigation between Egyptians ports should be encouraged to decrease the pressure on land transport. This can be done through exemption from the Suez Canal fees for domestic cargo between the Egyptian ports.

4.3. Ministry of Interior

The Ministry of Interior has major role in the transportation sector. In this section an assessment of its various activities will be discussed from the point of view of the effect of these activities on the overall performance and efficiency of the transport service.

4.3.1. Vehicle Operation License

The traffic department is the organization in charge of checking the road worthiness of vehicles before granting operation license. The check is made at the premises of the traffic police at each district and/or markaz. Such premises, in general, have limited space and are very crowded with vehicles and people. The traffic engineer has little time to check thoroughly all aspects of the vehicle and it is easy to notice the result in the status of old vehicles still running on the street some of them are more than 30 years old, exceeding all the designed life span. Broken down vehicles that can be noticed on the sides of the national roads is another indicator of low safety standards of vehicle inspection procedures. Egypt has no accreditation system to qualify inspectors for road worthiness of vehicles. For instance, in Japan getting an engineering degree from any university is not enough qualification for being road worthiness inspector. The applicator has to pass very rigorous national tests to qualify for the lowest level of inspectors and then has to work for specified period before staying for the test of the next level. The road worthiness check is done into well equipped workshops and only new vehicles are exempted from such checks because all car makers must employ inspectors of the highest level to certify each and every vehicle before getting the vehicle out of the factory. The rationale behind such strict rules is to enhance road safety not only for drivers and passengers but also for the third party as well. The Study Team urges the concerned parties in Egypt to start serious planning for adopting strict rules and procedures for the improvement of road worthiness of vehicles. The Egyptian Government may seek international cooperation for the technical support of inspector's accreditation and for providing model facilities for vehicle inspection. ENIT can be the institute for inspector's education, training and accreditation and the Traffic Police can be the manager of the model inspection facilities. Similar inspection facilities could be established by private sector under the overall supervision of Traffic Police.

4.3.2. Driving License

The Traffic Department of the Ministry of Interior is the organization in charge of granting driving license for all kind of vehicles. The driving license for private cars is valid for 10 years and that of trucks and busses is valid for one year. In general, getting driving license in Egypt is an easy matter. The driving test is done in the traffic department at each district and each kism and it takes few minutes. Although there are some so called driving schools, they have no training space and usually they train the license seeker in public streets. Although the owner of the driving school should have license, his instructors who teach driving has no accreditation. The cars used for training are not specially equipped. Most of Egyptian drivers know very little about traffic law. As will be mentioned later, the Ministry of Tourism is currently constructing the first driving school with international standard. This school will train tourist's bus drivers in the first phase and then will also provide training for truck drivers. It is to be noticed that Cairo Transport Authority and Alexandria Transport Authority who operate public busses in Greater Cairo and Alexandria has their own facility for the training of their own drivers. According to some research in causes of traffic accidents, it was found that drivers' behavior is the top cause of accidents. This can be attributed to lack of proper training and education in driving and traffic rules.

Accordingly, the Study Team strongly recommends the start of national program for training and education of traffic rules. Such program may include:

- 1) Encouraging private sector companies to establish and operate driving training schools. The instructors in these schools should have instructors' training and accreditation. The schools should be equipped according to predetermined specifications including specially equipped cars for training. In these schools trainees will receive comprehensive lectures about the traffic law and the basics of car mechanics in addition to driving training. Since such schools require large area, land cost may be one of the obstacles for attracting private investment. To overcome such hurdle, the Government may provide the land in desert area at a nominal rental cost. If the investor did not establish the training school and start operation within specified period, the rental contract may be canceled.
- 2) The Traffic Police may provide monthly traffic education secessions in general schools to educate young generation about traffic rules and negative effects of neglecting them.
- 3) TV programs for education of traffic rules.
- 4) Issues Clean Driving Certificates for drivers with no traffic violation for some specified period.
- 5) Compulsory written test (chose between different answers format) in traffic law as a condition for getting driving license.

4.3.3. Enforcement of Traffic Law

It does not warrant a specialist to assess that enforcement of traffic law is virtually non existent particularly on the national road network. The Central Traffic Department (under the Specialized Police Sector) is in charge of the enforcement of traffic law on the national road network. The traffic department in the Police of each governorate is in charge of the enforcement of traffic law at each governorate. The activities of traffic police are limited to establishing vehicle speed check point at selected points on the road and checking the validity of the driving license and vehicle operation license. The locations of the speed check points are changed so that drivers will not know where to observe the speed limit, but some drivers use mobile phones to inform their fellows about the location. Check of driving license and car operation license is made at fixed known points usually at the boundaries of the governorates. The fine for exceeding the speed limit has been raised in the modifications of Traffic Law of 2008. The raised level of fine has helped to decrease speed violation to some extent. Other than speed limit and license checks, there are no other enforcement activities. Lane changes without signaling are common. Overloaded vehicles are not stopped except for axle load of trucks which is checked at some points by the General Authority of Roads, Bridges and Land Transport when police support is available. Driving under drugs effect is not monitored.

A review study that examined about 800 references indicated that 400,000 people die every year in road accidents around the world. The cost of death and injuries constitute a loss of 1-2% of world GNP every year. Egypt has a very high death rate due to traffic accidents of about 156 for each 100,000 vehicle per year. The review study summarized the general conclusions on traffic law enforcement as:

- The success of enforcement is dependent on its ability to create a meaningful deterrent threat to road users. To achieve this, the primary focus should be on increasing surveillance levels to ensure that perceived apprehension risk is high. Once this has been achieved, increasing penalty severity and the quick and efficient administration of punishment can further enhance the deterrent effect.
 - Significantly increasing the actual level of enforcement activity is the most effective means of increasing the perceived risk of apprehension.

- The use of periodic, short-term intensive enforcement operations (blitzes) is a more cost effective enforcement option; however, the effect on road user behavior may be reduced.
- The use of selective enforcement strategies, designed to specifically target high risk road user behavior and traffic accident locations is another cost effective alternative.
- Automated enforcement devices provide the most cost effective means of significantly increasing apprehension risk and should be adopted as a matter of priority.
- The use of publicity to support enforcement operations should be adopted as means of increasing enforcement effectiveness. It is essential that road users actually observe the publicized increase in the level of enforcement activity otherwise behavioral changes are usually only short-term. Publicity as a stand alone measure can increase community awareness of road safety issues; however, it has only a minimal effect on actual road user behavior.
- If the risk of apprehension is high then the use of legal sanctions, such as license suspension and revocation procedures, can be an effective deterrent.
- The use of point demerit schemes provides an effective means of linking less serious repeat offences to more severe penalties.

The adoption of traffic law enforcement require intensive training for the police and the procurement of the required equipments such as traffic police cars and motor bicycles, radar equipment, surveillance cameras, communication system etc. The cost of law enforcement is admittedly high but balance will be in its favor if we remember the losses to the national economy which is estimated as between 1% and 2% of the annual GDP as mentioned above.

4.3.4. Security of Transport Facilities

Security of transport facilities such as railways, airports, sea ports are the responsibility of the Directorate of Ports Security and the General Department of Transportation Police (under the Economic Security Sector of the Ministry of Interior). The security of water bodies is the responsibility of the General Department of Environment and Water Bodies Police (under the Economic Security Sector also). Theft of transport related items has been on the increase. Examples include cables of control system of the railways, sign boards on roads, navigation boys in the River Nile, etc. The effect of such thefts is not limited to the loss of its value, but they cause series accidents with consequent disturbance of the operation of the transport facilities in addition to loss of life and property. The Study Team recommends the establishment of a task force from the Ministry of Transport and the Ministry of Interior to formulate an action plan that defines the reasons and countermeasures for eliminating this phenomenon. The task force can make use of the measures implemented in other countries. Such measures may include new laws for increasing the punishment on the theft of public property, use of surveillance cameras, etc.

4.3.5. Passport and immigration

The Ministry of Interior is in charge of passport control and immigration related matters at all airports, marine ports and land ports.

4.4. Ministry of Civil Aviation

The Ministry of Civil Aviation is the Ministry in charge for all issues related to the development of civil aviation utilities to attain international standards and to insure aviation safety. The Ministry has the following main organizations:

4.4.1. Egyptair Holding Company

Egyptair was established in 1932 as the seventh airline in the World. In 2002, Egyptair changed its structure into a holding company with nine subsidiaries:

- Egyptair Airlines: The international carrier. A member of Star Alliance since 2008.
- Egyptair Express: A scheduled domestic and regional airline established in 2006.
- Egyptair Cargo: Founded in 2002 and since then is dealing with the transportation and handling of general and special cargos.
- Egyptair Tourism (Karnak) & Duty Free: Comprised of two separate business sectors; duty free that provides duty free retail services to passengers at nine major airports throughout the country, and Karnak Tourism Services that provides inbound and outbound touristic/conference services and operates a fleet of passenger vehicles of varying sizes for the transport of tourists.
- Egyptair Maintenance & Engineering: Provides full-maintenance, repair and overhaul services for aircrafts.
- Egyptair Ground Services: Established in 1938 as the first ground handling company to operate in Egypt and the Middle East. It provides ground services in most of the Egyptian airports.
- Egyptair In-Flight Services: Provides in-flight services for the entire fleet of Egyptair as well as other airlines. Its services include sales on board, management of cafeterias and restaurants, manufacturing dry ice, and laundry services as well as outside catering.
- Egyptair Medical Service: At the start, it provided medical services only to Egyptair employees and their families. Later on, its services were extended to cover all civil aviation field workers and the public, healthcare medical insurance companies and medical tourism programs.
- Egyptair Supplementary Industries: Manufacturing of non-structural and other plastic items used for in-flight catering services and manufacturing of all printed materials for Egyptair.

4.4.2. Egyptian Holding Company for Airports and Air Navigation (EHCAAN)

EHCAAN was established by the Presidential Decree 72/2001 under the name of "Egyptian Civil Aviation Monitoring Authority" then later on changed its name to the current one. EHCAAN operates according to Law 203/1991 of the public business sector and owns two subsidiaries:

- Egyptian Airports Company: Construct, prepare, manage and operate of Egyptian airports other than Cairo Airport. These airports include: Sharm El-Shiekh International Airport, Luxor International Airport, Borg El Arab New International Airport, Taba International Airport, Hurghadah International Airport, Aswan International Airport, Abu Simbel Airport and Marsa Matrouh Airport
- National Air Navigation Services Company (NANSC): Provides safe, orderly, expeditious flow and efficient air traffic associated with air navigational services.

Cairo Airport Company: Owns, manage and operate Cairo Airport which is one of the main passengers and cargo hubs in the Middle East and Africa.

Aviation Information Technology (AVIT): Provides consulting services, infrastructure and communication services to civil aviation organizations as well as to other organizations.

There are also 85 private companies working in air transport business

4.4.3. Egyptian Aviation Academy (EAA)

EAA provides excellent training for the professions of air transport. It has three colleges:

- Misr Flying College: Trains students in high advanced aviation technology to be qualified as professional pilots to fly the most sophisticated planes with confidence.
- Air Traffic Control College: Trains students for air traffic control using its modern large complex in the 6th of October Airport which is equipped with various up-to-date ATC simulators.
- Civil Aviation Management Training Collage: Consists of School of Aviation Medicine, School of Aviation Management and School of Career Management.

4.4.4. Egyptian Meteorological Authority (EMA)

The EMA is the authority responsible for studying meteorological variations and provides its report to all related organizations including those related to civil aviation.

4.5. Ministry of Tourism

Tourism is one of the main pillars of the Egyptian economy because it provides badly needed foreign currency that helps in improving the negative trade balance. The Ministry of Tourism is the Ministry in charge of all tourism related activities in Egypt. Tourism projects enjoy several incentives. One of these incentives is the exemption of custom duties on transportation facilities for the movements of tourists.

Because tourist busses travel in some difficult terrains in desert areas such as Sinai, the Red Sea, Aswan and the oases where sharp corners and steep slopes are unavoidable, several fatal accidents have occurred during the last few years. The Ministry of Tourism realized that to improve the safety of tourist buses it is of utmost importance to improve the driving skills of the drivers. To this end, the Ministry of Tourism prepared a comprehensive plan for improving all aspects of tourist transportation that include drivers, vehicles and roads. A diagnostic study was conducted to highlight the weak aspects and to define the required professional skills for the drivers. Tourist bus drivers should undergo additional medical tests and psychometric test after which the driver should attend a theoretical training course on traffic rules, defensive driving, vehicle condition and vehicle troubles and their relation to traffic accidents, the rules of the ministry of tourism for tourist transportation and first aid principles.

To this end, the Ministry of Tourism recognized the need to establish a modern driving training facility. A contract was signed with specialized consulting European firm to provide consulting services for the establishment of such facility. An area of 442,200 sq.m was allocated to the project in 15th of May City to the South of Cairo. The project was named "Egyptian Training Center of Excellence (ETCE)" and it will be the largest of its kind worldwide. ETCE will have all required facilities for state of the art drivers training including a driving course with length of 7 kms. In the first year of operation ETCE will train some 15,000 drivers and then after the services of the center will be extended to the training of truck and heavy truck drivers with peak capacity of 35,000 trainees per year. The cost of the project is L.E. 200 Million sponsored by the Ministry of Tourism.

The Study Team appreciates the efforts of the Ministry of Tourism and other involved organizations in establishing the ECTE and considers it as a major leap toward improving traffic safety in Egypt. ECTE will surely constitute an example for improving driving skills. Other organizations are encouraged to establish

similarly will equipped driving schools in all governorates although they may not be necessarily with such large scale.

The Ministry of Tourism has allocated L.E. 7 millions to the Automobile & Touring club of Egypt to improve road signs in touristic area.

The Ministry of Tourism supervises the tourist cruise boats operating in the River Nile between Cairo, Luxor and Aswan and between the Aswan High Dam and Abu Simble in Upper Egypt. It assigns a class to each boat depending on the amenities provided in the boat. The number of these boats has increased rapidly during the last two decades.

4.6. Ministry of Water Resources and Irrigation (MWRI)

The Ministry of Water Resources and Irrigation is in charge of all aspects related to the River Nile and all its canals and branches. This includes the construction of all water control structures, digging and maintaining irrigation canals and the required roads and bridges to facilitate transportation along and across the water network. The Ministry decides the water discharged in the River Nile proper and in all canals. The volume of the discharge changes seasonally to meet the irrigation demand. These changes mean fluctuations in water depth in the River and the canals with adverse effect on navigation. Egypt's share of the Nile water is fixed and any amount discharged to keep the required depth for navigation without being necessary for irrigation means water loss. Together with the River Transport Authority, MWRI are implementing a project for deepening and maintaining a navigational route within the Nile. The navigational route is provided with lighted boys to facilitate night navigation. This will enable 24 hrs operation of the river barges instead of the day time navigation restrictions applied before this project.

4.7. Ministry of Petroleum

The Ministry of Petroleum has constructed a network of pipelines for the transport of crude oil and petroleum products. The pipeline network has helped in diverting the transport of these combustible products from the railway and the roads in addition to improving the safety. The companies engaged in pipelines activities are:

- Petroleum Pipelines Company
- Misr Petroleum Company
- PetroGas
- Ameryia Petroleum Refining Company (APRC)
- Egyptian General Petroleum Corporation (EGPC)
- Suez Oil Processing Company
- Nasr Petroleum Company
- Alexandria Petroleum Company
- Arab Petroleum Pipeline Company (SUMED)

The products transported by pipelines include crude oil, petroleum products, condensates, butane, natural gas and ballast water. Some of the pipelines are maritime lines, while most of them are land lines.

4.8. Ministry of Economic Development (former Ministry of Planning) (MOED)

The Ministry of Economic Development (MOED) is the Ministry responsible for the preparation of the 5 year plans for social and economic development for all sectors. The main duty of MOED is to achieve rational allocation of national and donor funds for those projects that realize development in the designated national directions. MOED coordinates with the Ministry of Finance and the Ministry of International Cooperation to allocate appropriate funds to the selected projects taking into account project type, necessity and priority with respect to the overall comprehensive vision and policy.

MOED most influential role in the transport sector policy framework is in the budget approval process of capital projects. Transport sub-sector's investment plans are prepared by each sub-sector and sent it to the budget sector of the Ministry of Transport. The investment plan for all sub-sectors of MOT is prepared by the budget sector and after the approval of the Minister of Transport sent to MOED. MOED revises those plans according to the targeted strategies and policies approved for the five year plan. MOED comments on the planned projects and establish their priorities and then discuss with the related bodies in the Ministry of Transport. Thereafter the modified version of the investment plan is resubmitted to MOED for final approval and forwarding to the Ministry of Finance. As it can be seen the role of the Transport Planning Authority in the preparation of the five year plan is limited to the submission of its own budget requirements as one of the sub-sectors of MOT to the budget sector of MOT. Since transportation planning depends to large extent on the available finance resources either from the national budget or from the private sector, it is clear from the above procedures that the final plan of the transportation sector is mainly decided by finance factors with less considerations to factors related to satisfying the forecasted demand and to the integration of sub-sectors projects.

The Study Team recommends strengthen the role of TPA in preparing the final budget of the Ministry of Transport to insure the aspects of demand requirements and integration between the different sub-sectors of transport.

4.9. Ministry of State for Environmental Affairs (MSEA)

According to the stipulations of Law 4/1994 for the Protection of Environment, the Egyptian Environmental Affairs Agency (EEAA), the executive arm of the Ministry of State for Environmental Affairs, was restructured to be responsible for all functions related to environment. Its functions include formulating environmental polices, preparing the necessary plans for environmental protection and environmental development projects, following up their implementation and undertaking the implementation of pilot projects. The Agency is the national authority in charge of promoting environmental relations between Egypt and other countries, as well as regional and international organizations.

The items of the mission of the EEAA which affects transportation projects are:

- Preparation of draft laws concerning the environment.
- Draft the necessary norms and standards to ensure that the environment is not polluted.
- Formulate the basis and procedures for the assessment of environmental impacts of projects.

4.10. Ministry of Investment

Based on the stipulations of Law 203/1991 of the public sector enterprises, the Holding Company for Maritime Transport replaced the Public Sector Authority for Maritime Transport established by the Presidential Decree 431/1983, and the Holding Company for Land Transport replaced the Public Sector Authority for Land and River Transport established by the Presidential Decree 430/1983. In 2000, the Prime Minister Decree 1499/2000 merged the Holding Company for Maritime Transport and the Holding Company for Land Transport and changed the name to be the Holding Company for Maritime and Land Transport (HCMLT) (an Egyptian joint stock holding company) that operate according the Public Sector Ministerial Decree 104/2000 under the Ministry of Investment. The company mainly invests its capital either solely via its subsidiaries or jointly with any other entity inside Egypt or abroad.

The HCMLT is also responsible for consulting, studying, conducting research, performing agency activities and brokerage, providing expertise, evaluation processing, selling and promoting of projects. The HCMLT is entitled to perform all activities that complement, supplement, support or relate to any of the purposes aimed at achieving the best methods to invest its capital, expand the range of its investment, reinforce and enhance its resources and increase its resources and increase the value of its investment, and maximize its profits.

The activities of the HCMLT include:

- Establishing of subsidiaries and other corporate solely or jointly with other holding companies or any other public or private companies or individuals.
- Buying and selling shares in joint stock companies, and sharing in their capital.
- Issuing and managing the company's financial portfolio including stocks, securities account, bonds, financial assets and any other item of value.
- Conducting any and all necessary actions that the company might need to achieve its purposes.
- Expanding the ownership of its subsidiaries to obtain the fund required to restructuring and reforming these subsidiaries.
- Supporting its subsidiaries to raise the standard of their production and improve their performance level to insure their share in the global market.

The companies solely owned or jointly owned by Holding Company are shown in Table 4.10.1.

Table 4.10.1 Companies under the Holding Company for Maritime and Land Transport

Name of the Company	HC Share %
Container Handling Companies	
Alexandria Container and Cargo Handling Co.	55.787
Port Said Container and Cargo Handling Co.	40.853
Damietta Container and Cargo Handling Co.	41.917
Egyptian General Warehousing Co.	100
United Arab Stevedoring Co.	51.1571
Suez Mechanical Stevedoring Co.	6.875
Shipping Agencies Companies	
Canal Shipping Agency	91.705
Memphis Shipping Agency	5

Name of the Company	HC Share %
Amoun Shipping Agency	5
Abu Simble and Thebes Shipping Agency	5.0019
Shipping Companies	
South Valley Co.	0.2
National Navigation Co.	65.64
Pan Arab Navigation Co.	33.8
Arab Maritime Petrol Transport Co.	0.104
Passengers Transport Companies	
East Delta Travel Co.	100
Upper Egypt Bus Co.	100
West and Middle Delta Bus Co.	100
Cargo Transport Companies	
Nile Company for Freight Transport	29.98
Nile Company for Land Transport	30.03
Direct Transportation Co.	30.05
Transportation Business Co.	38.92
Nile Super Transport Co.	38.44
Trading Companies	
Misr Company for Foreign Trade	100
Misr Company for Import and Export	100
Nasr Company for Import and Export	100
Misr Car Trading Co.	100
Commercial Company of Woods	100
Others	
Engineering Automotive Manufacturing Co.	100
Nile Auto Manufacturing and Repair	100
The Egyptian Marine Supply and Contracting Co.	49
Torgoman Group	31.658

Source: Homepage of HCMLT

As can be seen from the above table, the main activities of HCMLT are related to marine transport, freight transport, passengers transport in addition to other activities that includes international trade and automotive manufacturing. If we have a look at the organization structure of HCMLT in its homepage in the internet, it is clear that HCMLT has a very huge management structure. It should be noticed that the main functions of holding companies is to manage the finance portfolio of its subsidiaries and to restructure these subsidiaries so as to be competitive in their fields of business and that is the main reason for having a normally slim management structure. The huge structure of HCMLT indicates the need of HCMLT to restructure itself.

The engagement of the subsidiaries of HCMLT in marine transport, forwarding, warehousing and freight transport makes it the most candidate entity to establish the first "third party logistic provider (3PL)" in Egypt. This can be achieved through establishing a joint venture company with a leading international logistic provider as a step for introducing integrated logistic service in Egypt. The proposed "third party logistic provider" can help also in absorbing part of the huge management structure of HCMLT. Such company could be privatized later on. It is worth noting that HCMLT is neither engaged in railway transport nor inland water transport.

The share of the trucking companies under HCMLT is in the range of 1.2% of the total freight volume handled by trucks in Egypt. This is a very minor role in consideration that the major volume of 93% is carried by small size private operators. Since large trucking companies can provide better service with lower cost because it can afford to operate line haul service between main freight destinations and can apply advanced IT in their operation, the HCMLT should take the initiative to expand its share in freight handling through the provision of more capital (independently or through joint venture) to its trucking

subsidiaries and/or improving their management and the application of aggressive business promotion techniques. Moreover having good information with the producers can eliminate some of the shipping of the same product which is transported some times in opposite directions due to the absence of information. It could also minimize unloaded return trips which accounts to around 70-80% of the return trips of small size private operators. Such initiative can have far reaching effects on the Egyptian economy as a whole and the retail prices for the end consumers.

So far, Egypt has no modern logistic centers. HCMLT has the financial and personnel resources to establish new company(s) that finance, construct and operate logistic center(s) at strategically selected location(s) to make use of Egypt's central location in the routes of international shipping.

4.11. The Governorates

Egypt has 27 governorates under the Ministry of State for Local Development. The budget of these governorates is the sum of locally collected fees and the allocated budget from the central government. The activities of the governorates in transportation include:

4.11.1. Construction and maintenance of local roads.

The road departments in the governorates are in charge of the construction and maintenance of the roads within the cities and the villages and the roads between them within the governorates. In general, the quality of these roads is inferior compared to the national road network implemented by GARBLT. When such roads pass through a city or village, it is considered as the main street and all kinds of commercial activities are concentrated along its route. Moreover many speed bumps are made across the road to force the traffic to decrease the speed with the aim of ensuring pedestrians safety. The uncontrolled crossing of pedestrians, the lack of road crossing signals, the excessive number of speed bumps and the chaotic commercial activities result in lowering the efficiency of these roads and thus force the traffic to use national road network even if it means longer detours. Transferring the commercial activities to side streets, improving the pavement conditions and providing traffic signals for vehicles and pedestrians on the local roads can help to attract the traffic to these roads which in turn can improve the efficiency of the whole road network.

4.11.2. Construction, operation and management of bus and shared taxi terminals

Bus and shared taxi terminals used to be around the city centers. This is still the state in small cities. In larger cities where such terminals result in traffic bottlenecks, the governorates constructed bus and/or shared taxi terminals at the outskirts of the city where land is available. Most of these terminals are poorly designed and do not take the safe movement of vehicles and passengers into consideration. Because these terminals are far from the residential areas and from the stations of other modes of transportation such railway station, passengers are compelled to use a third transportation mode such as taxi or tuktuk at additional cost and less comfort. Since time saving and transport comfort are the main criteria for passengers, the governorates should integrate these terminals with the stations of the railways when available. In cities where railway stations are not available, the governorates should construct modern terminals close to the city center with dedicated bus lanes and/or viaducts that connect them to the national road network.

4.11.3. Licensing of cooperatives and/or private busses.

The governorates issue the licenses to the cooperatives and/or private operators who operate bus services between the cities and the villages of the governorate. The governorates decide the routes and the fares of these busses.

4.11.4. Establishment of truck cooperatives.

The governorates encourage truck owners to formulate cooperatives for improving the operational efficiency of their trucks. However, these cooperatives did not attract many truck owners. Individuals still constitute the majority of the truck owners.

4.11.5. Licensing of ferries for crossing the River Nile and other Canals.

The governorates that have areas on both banks of the River Nile or other canals issue licenses for the operation of ferries that transport cars, passengers and cargo across these water bodies. Most of these ferries and their boarding facilities do not satisfy the safety requirements and are subject to many accidents. Lately, Aswan Governorate has provided modern ferries with proper boarding facilities on both sides of the River. Other governorates are encouraged to embark on similar initiatives.

4.12. Ministry of Planning and International Cooperation

MOPIC is in charge of the preparations of the consecutive 5-year plans for all the economic sectors and for the overall macroeconomic framework, officially endorsed by the cabinet. The main objective of MOPIC is to rationalize the allocation of the national and donor funds for the projects that achieve the designated targets of the national development. MOPIC cooperates with the Ministry of finance to allocate the available funds to the projects requested by the different ministries taking into account project type, necessity and priority with respect to the overall development vision and policy.

Transport sector investment plans are prepared by the budget sector of MOT and then submitted to MOPIC. MOPIC revises these plans according to the targeted national strategies and policies. MOPIC discusses their comments and prioritization with MOT to reach the modified plans for the transport sector. The modified investment plan is then resubmitted to MOPIC for final approval and forwarding to the Ministry of Finance. Including a project into the 5-year plan means its final approval for implementation by all concerned ministries.

4.13. Consultants and Consulting Contracts

In view of the lack of qualified technical staff in the various organizations of the Ministry of Transport as mentioned in previous sections, these organizations are employing consulting firms to conduct works that should be handled by these organizations themselves. Examples may include employing consultants for conducting transport studies for the Transport Planning Authority, employing consultants for the supervision of the construction of new roads and bridges by the General Authority of Roads, Bridges and Land Transport and others. This is an inevitable situation to compensate for the shortages of qualified human resources in these organizations. Accordingly MOT should have genuine interest in improving the consultant performance. Improving consultants' performance in Egypt will help the consultant to compete in the international market. This will have favorable results in helping solving the unemployment problem of many graduated engineers.

The Engineering Syndicate is the organization in charge of classification of consulting firms and granting them operation license. The syndicate classifies the consulting firms into 3 categories:

- Specialized consulting firms with full timer owner registered in the syndicate as consulting engineer in the specialized field for the management of the firm with at least three engineers working in the office.

- Multi discipline consulting firms with full timer owner(s) who have more than 3 years experience after registration as consulting engineer in the syndicate. The number of the staff in the office should be more than ten with at least 6 engineers.
- Integrated consulting firms which are established by one or more consulting engineer and managed by a registered consulting engineer with 10 years experience after registration. The firm should have registered consulting engineers in all specialties. The number of staff should be 30 or more with half of them full timers.

Consultant selection is conducted according to the tendering law 89/1998 and its modifications. It is the same law that governs all governmental procurement procedures including contractors and purchases.

The consulting firm which is interested to work for one or more of the organizations of MOT should register it self into the list of consultants of the organization(s). When the organization decides to employ a consultant for a study, it prepares a short list from the consultants registered in its own list. The organization prepares a TOR and a reference estimated cost for the work. Consulting firms from the short list are called to submit two envelopes proposal (technical proposal and cost proposal) for the work. A committee is formed to evaluate the technical proposal. If the evaluation of the technical proposal is 70% or more, the proposal is considered accepted. Then after, the cost proposals are opened, the cost is divided by the percentage of the technical proposal and the consultant with the least value is invited to conclude the consulting agreement provided that the cost of the service is less than the reference estimated cost previously prepared by the organization. This process most often results in the selection of the lowest cost associated with lowest technical proposal. This means that the selected consultant will try to submit the minimum acceptable output. The consultant agreement does not conform to FIDIC standard forms. The consultant submits the reports stated in the agreement to the organization and the organization sends its comments to the consultant without having presentation or discussion with the consultant. There is no assurance that all the members of the study team mentioned in the consultant technical proposal will participate in the Study and there no proof that the same members are engaged in other studies at the same time of their assignment (double assignment).

When a MOT organization wants to employ a consultant for project supervision, the same procedures mentioned above is followed. In most cases, the supervising consultant visit the project site at the time of critical works and does not have hands-on presence on full time basis. This means that the consultant does not monitor the progress of the work schedule and also he may oversee some technical details.

Due to the lack of capable technical staff at most contractors, the contractors employ consultants for the preparation of the working drawing, implementation schedule and other technical aspects of the project. Although the same consultant cannot work as representing the employer and in the same time as a contractor's consultant in the same project, the consultant can work as representing the employer in project supervision while working as contractor's consultant in other project for the same employer. This situation constitutes a clear conflict of interest with negative effects on the fidelity of the consultant.

In general, the Study Team proposes the following recommendations that aim at improving the consulting work. Since the suggested improvements will benefit not only the consultant but also the MOT, MOT should subsidize part of the expenses required for implementing these recommendations.

- 1- Consultants that work in the field of transportation should form an association that aims at improving all the issues related to the field of transportation.
- 2- The association should embrace the general problems that hinder consultant fair competition.

- 3- A system of grading and qualification should be established through negotiation between the MOT and the transport consultants association including personnel accreditation.
- 4- A new law for selection and contracting of consultants should be prepared through negotiation between the MOT and the Transport Consultant Association.
- 5- Consultant selection should emphasize the precedence of technical proposal. This may be accomplished by giving the technical proposal more weight in the evaluation (around 70%) and the weight for cost will be 30%. Alternatively, the consultant that has the highest technical evaluation can be called for negotiation based on a previously known man/month rates for each category of its team. This will enhance technical competition between the consultants which in turns improve the overall consulting service in Egypt.
- 6- Measures to avoid conflict of interest should be incorporated such as prohibiting the employment of consultant for both the employer and the contractor that are providing contracting services to MOT.
- 7- Measures to avoid double assignment should be incorporated by preparing data base for the key personnel of the consultant to be used by all organizations of MOT.
- 8- A system of penalty for violation of the obligations of consultant contracts and rewards for good performance should be established to encourage dedicated consultants.
- 9- Adoption of FIDIC consultant contract as far as possible. This will improve consultant's capabilities to compete in international consulting work.

4.14. Contractors and Contracts

The major part of the investment budget of MOT is ultimately paid to contractors to construct new projects or to maintain old ones. This means that improving contractors' performance can have direct benefits to the transportation system as a whole.

Tendering between contractors is governed by the same law that governs consultant selection; viz. Law 89/1998. Contractors interested in participation of the projects of any organization of MOT should register in the list of eligible contractors of that organization. In most cases a short list is prepared by the organization and the listed contractors are called to submit their technical and financial proposals based on the TOR and specifications prepared by the organization. Since the list of the eligible contractors includes only qualified contractors, comparison of financial proposal is the main factor for the contractor selection.

The Study Team has surveyed some of the construction sites of roads and bridges and has the following observations:

- 1- Construction sites are not organized for optimum performance.
- 2- The level of safety arrangement for the contractors' employee and for vehicles and pedestrians around the construction sites is fare below international standards.
- 3- Construction activities are going at leisurely manner with no signs of urgency even in critical bottlenecks. This indicates low productivity of equipment and personnel and longer period of project implementation. In other words, lower efficiency of investment and lower return for the contractor.

- 4- The quality of roads and bridges construction is low-grade. This means faster deterioration and shorter life span of the project. This translates in more cost.

The main reasons for the above mentioned observations could be summarized as:

- 1- Weak project management.
- 2- Low technical level of contractor's personnel due to insufficient training programs.
- 3- Lower efficiency of project supervision.
- 4- Contractual problems such as non enforcement of delay penalties and non enforcement of safety measures.

4.15. Insurance related aspects

By law, all vehicles in Egypt must be insured to a third party liability level. This insurance does not cover damages to the owned vehicle or to the cargo in it. Vehicles bought through a bank loan, are obliged to have an insurance policy that covers damages to the vehicles. In general, cargos transported by trucks are not insured unless the shipper includes an insurance clause in the transport contract. Car rental companies have all risk insurance policies for their rented cars. The toll fees of highways include an insurance amount that covers the single trip for which the toll fees are paid. Vehicle owners who have all risk insurance policies are very limited. Most share taxis do not have insurance policies to cover the passengers.

Due to the above mentioned state, insurance companies are not active in promoting traffic safety. It is important to promote insurance culture to vehicle owners and to involve insurance company in traffic safety activities.

4.16. The Role of Non Governmental Organizations (NGOs)

The role of Non Governmental Organizations in the transport sector of Egypt is very limited and requires more efforts from both the government and the members of these organizations. The role of the government may be in the form of financial support for the activities of those organizations that prove their dedication to improve the quality and proficiency of the field of their membership. According to Law No. 84/2002 all non governmental organizations, regardless of their domain of activities should register in the Ministry of Social Solidarity and Justice. The prime role of the Ministry of Social Solidarity and Justice is to coordinate the activities of the social associations but regarding the scientific and/or technical associations, the role of the Ministry is limited to ensuring the application of the stipulations of the above mentioned law. The NGOs discussed hereunder are those with some impact on the transportation sector.

4.16.1. Automobile & Touring Club of Egypt (ATCE)

The Automobile & Touring Club of Egypt (ATCE) was founded in 1924 as a social club for a limited membership of princes, nobles and notables who possess private automobiles. With the outspread of car ownership and the use of cars for international trips, and the establishment of the Federation of International Automobiles (FIA), the ATCE realized that its role should cover the application of FIA regulations. A specialized Auto Tour Department was established to manage and accomplish the tasks of the Auto Tours including the issuance of international driving license and pass book (triptickets) in accordance to relevant UN sponsored international agreement and national law.

In 1971, the Presidential Decree No. 3035/1971 was issued so as to place the ATCE under the supervision of the Ministry of Tourism. In spite of this supervision, the ATCE is operating as an autonomous organization with its own revenue from the membership fees and the fees for issuance of the international driving license and triptickets and other related activities. ATCE is a member of the Federation International de l'Automobile (FIA), the Alliance International de Tourism (AIT) and Federation International de Motocyclisme (FIM).

In response to the FIA proclamation to "Make Road Safe", ATCE in cooperation with FIA and the concerned Egyptian authorities arranged an international conference for road safety in 2006.

The public activities of ATCE includes also studies of adequate means that facilitate and secure traffic on intercity and intra-city roads, participation in providing tourist booklets, brochures, roadmaps, traffic signs, guidance and transportation. The Ministry of Tourism has allocated a budget of L.E. 7.4 Million for ATCE to implement a national project for traffic signs and traffic guidance signs in the tourist regions using most recent techniques and international codes.

ATCE grand project is to establish on roads services and rescue centers. The first center was established at the middle of Cairo/Alexandria Desert Road and other centers are under consideration. Each center will include first aid unit equipped with intensive care car, car maintenance workshop (mechanical, electrical and tires), coffee shop & mini market, business center, gas station and workers accommodation.

ATCE publishes ATCE Magazine that includes various topics related to the club activities, essays on subjects related to mobility and the news of international federations.

4.16.2. Arab Road Association (ARA)

ARA was established since 1953 as a scientific and culture association for entities and individuals working in road related fields. Its main objective is to have better roads through improving safety and improving road construction. It aims also to have an integrated road network between the Arab countries. To achieve its objective, ARA has the following activities:

Holding international and national seminars related to all transportation issues.

Issuing a refereed quarterly periodical "Arab Road Magazine" which includes articles in Arabic and English.

Participating in different international conferences related to road transport.

Coordinating between different authorities and/or associations of the Arab World and international associations and bodies.

Working as an advisor in aspects related to roads and transportation matters. The membership of the Association embrace high professionals in roads and transportation such as professors, ministers, leaders of road sectors, laboratories, training centers, construction companies, consultants and contractors.

ARA is a member of the International Road Federation (IRF) and hosts of its new branch in the Middle East. Cairo branch will be IRF fourth branch together with Geneva office, Washington office and Brussels office.

The budget of ARA is funded from the subscription fees of its members. The membership has two types; organizations and companies membership and individuals' membership. The Association receives also donations from member companies in addition to the revenue from the advertisements into the Arab Roads Magazine.

4.16.3. The Arab African Association for Logistics and Transport (AAALT)

The Arab African Association for Logistics and Transport (AAALT) was established in 2007 through an initiative from the Arab African Center for marketing and consultancy services (AAC) which is an Egyptian company that work closely with its sister companies in Malta, condor Exp. Co. Ltd. And Cartil Ltd. The Association has its office within the office of AAC. Its membership includes a mix of current government officials, ex. ambassadors and academia. Members from the Ministry of Transport and from companies working in activities related to logistics are surprisingly few. The AAC has an agreement with the Chartered Institute for Logistics and Transport (CILT) of UK to represent it in Egypt and to arrange training courses in transport and logistics aims at getting international professional qualification in logistics and transport at the diploma level. The courses are delivered locally by accredited training providers. So far only one course for training the trainers has been conducted. The demarcation between the activities of AAALT which is supposed to be a non governmental organization and the Arab African Center for marketing and consultancy services which is a commercial establishment with closer relationship with its sister company is not clear. For AAALT to be a neutral accreditation body, it has to be independent organization with transparent standing regarding to its finance and impartiality.

4.16.4. The Engineering Syndicate

The Engineering Syndicate has been established by Law 66/1974. All engineers graduated from one of the Egyptian Universities or equivalent engineering institutes should apply for membership of the Syndicate. The Syndicate provides its members with several social services such as health care, housing projects, pensions, tours, engineers clubs at different cities in addition to a library at its head office and the publication of the Engineers Magazine. The main sources of the syndicate revenue are the membership fees, registration fees of consulting offices, governmental subsidy, dues on cement and steel production, engineering stamps, consulting fees, etc.

The Civil Engineering branch of the Syndicate includes transport related sub-branches of roads civil engineering, marine ports engineering, transport and survey engineering, roads and airports engineering, roads and traffic engineering and railway engineering in addition to other civil engineering fields.

Registration in the Syndicate is a prerequisite for establishing consulting office and the internet site of the Syndicate lists the names of all registered consulting offices, director in charge, general field of service, office address but without hyperlinks to the home pages of each consulting office. The owner of the consulting office should spend 3 years at least after granted the title of "Consulting Engineer".

The newly graduate is registered as an "Engineer". After two years, he can apply for getting the status of "Practicing Engineer". After 5 years as practicing engineer, he can apply for getting the status of "Specialized Engineer". After 8 years, the specialized engineer can apply for the title of "consulting engineer". The application for consulting engineer should include evidence of his participation in the design and/or implementation of large scale projects. The rules for granting the title of "Consulting Engineer" are not strict and most applicants can get the title. The names of the new consulting engineers are published in the Engineers Magazine.

4.16.5. - Egyptian Federation for Construction & Building Contractors (EFCBC)

The Federation was established by Law No. 104/1992. The Federation has an independent juridical status and its membership includes contractors working in construction, building, public works and land reclamation as well as contractors of installation works, dredging, marine installation works and other contractors working in fields related to the above. Its membership does not include companies or persons exclusively working in supplying materials.

The Federation aims to foster the common interests of its members, to represent them to the competent authorities, to organize the conditions of occupation, to develop methods, regulation and practice traditions, to end the disputes which arise between members as well as helping to achieve the general development plan of the State in the field of competence. In this matter the Federation:

- 1) Set a charter of Honor to ensure respect for the traditions of the profession.
- 2) Set the rules for the classification and ranking of the members of the Federation.
- 3) To ensure that Egyptian members of the federation have the largest share in projects implementation
- 4) Study the economic and the technical subjects related to the construction industry.
- 5) Contribute in defending the members` interests at legal courts and others.
- 6) Establish an optional arbitration system which guarantees speedy resolving of disputes.
- 7) Strengthen the relations and exchange experiences with similar Arab and foreign organizations and institutions.

In year 2000, the EFCBC published a directory of its members. In the directory the contractors are classified into branches and in each branch the category of the contractor is decided according to weighting system that includes paid capital, years of experience, technical staff, financial staff, administrative and legal staff, the value of the highest contract for the last five years, successful completed works in the last five years, financial status and the equipment owned by the contractor.

The branches of EFCBC classification are shown in Table 4.16.1.

Table 4.16.1 Branches and sub-branches of EFCBC classification

Branch	Sub-branch	Field of Work
First	1/1	Buildings
	1/2	Foundations
	1/3	Metal Structures
	1/4	Incidental Works
Second	2/1	Roads, Bridges, Railways & Airports
	2/2	Tunnels
Third		Water, sewage stations and networks and Gas and Fuel networks
Fourth	4/1	General works and water and thermal power stations
	4/2	Marine and river works and dredging works
	4/3	Land reclamation
	4/4	Wells
Fifth		Electromechanical, electronic and communication networks

The EFCBC in association with other companies and banks has established the following companies:

- Misr for Cement / Kena
- Misr for Construction and Building Information (MCBI)
- Misr for Management and Engineering Development

In cooperation with the Ministry of Housing, Utilities and New Urban Community, the EFCBC manages the training center for construction heavy equipment.

The income of the EFCBC is mainly from membership fees. Member companies are obliged by law to pay membership fees and a membership in the EFCBC is a prerequisite for getting any contract from central government or from local governorates.

EFCBC has an information center that provides its members of information related to projects tenders, prices of construction materials, consulting offices, suppliers, the national 5-year plans, economic indicators, laws and regulations of the construction industry, labor, technical and managerial training, foreign commercial offices and economic researches.

4.16.6. Egyptian Society of Consulting Engineers "ESCON"

The Society is member of FIDIC since 1991 and its registered members are more than 300 consulting firms, but the active members who pay the membership fees periodically are very few. The Society is active in translating and publishing FIDIC contracts in Arabic language. According to the secretary General of the Society the demand on the Arabic version of FIDIC contracts from other Arab countries is high while the demand on these documents in Egypt is relatively low. It is to be noticed that the governmental agencies in Egypt do not insist on the use of FIDIC contracts and prefer to use their own contract forms.

4.16.7. Egyptian International Freight Forwarding Association (EIFFA)

The objective of the Egyptian International Freight Forwarding Association (EIFFA) is to enhance, support and lead the freight forwarding industry in Egypt so as to be capable of meeting the fierce competition in the international arena of globalization and free market.

The membership of EIFFA encompasses more than 290 companies operating in the fields of sea transport, air transport and road transport. EIFFA is the official representative of Egypt into the International Federation of Freight Forwarders Association (FIATA).

EIFFA activities include providing training courses, workshops and seminars on subjects related to freight forwarding industry to the employees of its membership companies. The period of the training courses ranges from 3 days to two weeks and the subjects of the courses include:

- Understanding Freight Business,
- Strategic Marketing for Freight Forwards.
- Strategic Logistics Management,
- Sales & Marketing Strategy for Freight Forwards,
- Distribution, Warehousing and Insurance,
- Inland Transportation,
- Chartering & Ship-broking,
- FIATA Documents,
- Inco terms & Letter of Credit,

- Cargo Exhibitions,
- Marine/Air cargo Insurance,
- Air Freight of Dangerous Goods, and
- Air Freight Basic Cargo

4.16.8. The Chambers of Shipping

There are four chambers of shipping in Egypt

- Alexandria Chamber of Shipping
- Damietta Chamber of Shipping
- Port Said Chamber of Shipping
- Suez & Red Sea Chamber of Shipping

The membership of these chambers are companies working in activities related to marine transport such as ship owners, oil production companies, stevedoring, shipping agencies, maritime services, diving, container handling, shipping supplies, silos, warehousing, trade, etc.

The services rendered by these chambers include:

- Assisting members in solving their problems with all competent bodies and authorities.
- Studying and giving opinion on the drafts of laws related to their activities
- Conducting researches and studies on subjects and matters related to the maritime transport sector.
- Follow up and implementing of new developments in the maritime transport fields.
- Offering technical consultancy on the maritime subjects and matters,
- Giving suggestions and opinions on the protection and safety of crew personnel.
- Attending international meetings and conferences related to maritime affairs and seaborne trade.
- Follow up and directing the legal and technical development in the maritime transport industry.
- Arbitration of disputes that may arise in maritime transport activities.
- Providing members with information and data related to maritime activities through sending newsletters.
- Acting as a link between the maritime community and the governmental agencies and administrations
- Acting as strong voice of member companies in the society and decision making authorities.

CHAPTER 5: ANALYSIS OF CURRENT PROBLEMS

5.1. Capacity of the Transport Planning Authority

Transportation planning is a complicated process which includes different hierarchies; vision, policy and strategy, different elements; hardware, software and humanware in addition to different building blocks; governance, society, economy and environment as explained in other parts of this Study. Transport planner should have thorough knowledge of all these layers of disciplines. At the same time transport planning cannot be done by a single person or a small group, but requires the effort of multi-discipline team. The current master plan study is a good example where a team of 30 specialists is working to prepare the master plan. There is no organization (or group of organizations) that can provide short term, medium term or long term transportation planning in Egypt. This is the main reason for requesting international aid to conduct such studies. With the expected continuous economic growth, Egypt will soon surpass the threshold of international aid in technical assistance. Egypt has no alternative but to build its own capabilities in transport planning (and other fields as well).

The Transport Planning Authority is the authority in charge of transport planning in Egypt and its capacity should be upgraded to meet this challenge. The current study will leave the mathematical transportation model in TPA. JICA study team has arranged training for a number of persons in TPA and personnel from other entities. But the model and the data base are just tools for the required continuous planning process. Transport planning is a continuous planning process which needs continuous updating and adjustment. In its current condition, TPA is not up to this task; it lacks capable staff, it lacks enough computers and even it lacks adequate space and environment. As examples, the library of TPA contains no reference about modern transport issues, TPA has no membership in any international periodical in the transport field and even there is no enough space to hold a meeting with reasonable number of attendance. The Study Team was obliged to arrange office space outside TPA which definitely has negative effects on communication with the counterpart team. An enhancement program of TPA that covers capacity building and financial capabilities is of top priority including the establishment of proper premises.

5.2. Problems Related to Human Resources (Capacity Building)

5.2.1. Sever Shortage of Competent Motivated Officials

1) National Issue

The Ministry of Transport suffers from sever shortage of competent officials. MOT situation is not unique; rather it is a common case in all Egyptian ministries. The main reason is the government policy of keeping the salary of government employees very low compared with the available salary in the private sector and/or the salary for working abroad in other Arab countries. Faced with ever increasing inflation rate and other unforeseen expenses such as education expenses of children, medical treatment expenses, etc. the Government employee cannot make ends meet. Under such pressure most of the competent officials who retain their governmental post try to find other source of income by having second job as consultant in

private firm or, as often happens working in jobs that are completely irrelevant to their main profession such as driving a taxi or working as clerks in retail shops. In addition to exhausting his energy, such official loses his motivation to actively engage in his official duties. He also finds the process of continuous learning an unaffordable luxury beyond his limited time and income resources. As a result the government official becomes an added number or a liability for his organization instead of being reliable work force. This situation is clearly seen in many crowded governmental offices but with very little output if any. When it happened, by chance, that there is some hard working individual, his superiors flood him with work and he becomes the main pillar of the office. In many cases such hard working individual is indispensable to the extent that his superiors do not select him for the obligatory management training courses required for promotion to the management post nor select him for training abroad when the chance is available. Instead, the superiors select other candidate whose absence will have little effect on the output of the office. In many cases, the promotion to the management post goes to the person who attended the training courses although he has no practical experience. The hard working individual ends up with more frustration. The main reason for retaining the official post is its stability because government officials can not be fired and to get the retirement pension and other benefits such as cheaper medical care for himself and his family. To make a long story short, the government is paying unreasonably low salaries and in return receives little or no output.

In addition to the low salary, there is no fair system for work evaluation and competition. Promotion procedures are not based on productivity or efficiency but depend on the relationship with superiors and the ability to put outside pressure on them. In many cases political considerations play decisive role in promotion especially for top positions.

2) Temporary solutions are not enough

Due to the lack of competent officials, the successive ministers and the heads of the governmental organization, recognize that it is impossible to deliver the responsibilities of their ministries and/or organization with the available staff under their authority. They find no other way, but to employ advisors from outside of the Ministry and/or organization. The available pool of advisors is very limited to the academia, or the retired army officers or the private sector. These advisors are hired on temporary basis at a very high monthly salary that may exceed the salary of the most senior undersecretary by huge margin. In some countries, such as the USA, the new administration brings along its men to the main posts of the administration. The main difference is that those new comers in the USA administration find a huge chest of studies and programs that are prepared by the permanent officials and related think tanks and consulting firms. These studies are usually based on sound facts and rationale, that the new administration has no alternative but to implement their recommendation. At the end, this ensures continuity and sustainable performance. In Egypt, the case is different because the previous group of advisors, the permanent staff and the consultants leave no such programs and studies. The new team finds that they have to start from scratch. Since most of the new advisors come from outside the Ministry, their knowledge about the official procedures is limited. It takes them a great deal of time and effort to grasp the main issues while dealing with the pressing daily problems.

Decision making in Egypt is very centralized and those at the top has to deal with many problems that can be easily delegated if there exist written rules and manuals. Changes in laws are frequent and great number of laws is modified by the people's assembly. The modifications are issued as a separate ruling which contains the modified articles only. Such modifications may occur several times for the same law. Most of the Egyptian laws contain exception clauses that give the related Minister a room for exceptions which can be exploited to make some benefits for pressure groups. The jungle of laws, modifications and exceptions means that it is extremely difficult for temporary employed advisors to follow the right course of action.

3) Team Work

Since there are no rules for the selection of advisors, the Minister or the head of the organization asks his acquaintances (or some time the political hierarchy) to nominate the candidates for the advisors. This means that these advisors come from different sources with different background and school of thoughts. This makes it difficult for harmonized team work. Most of the advisors are selected on personal basis not on ability to deliver some particular output. A prominent example is the almost exclusive selection of retired navy officers for all the higher posts of maritime transport.

4) Advisors for Particular Assignment.

Since some assignments need the formation of task force, the employment of some advisors, with special know-how, as members of the task force may be necessary, but this should be the exception and not the rule. In the current situation employment of the advisors has no limited time and is not, in general, limited to a particular assignment.

5) Staff and Line Responsibility

As it is well known in management science, advisors are staff with limited responsibility, while line officials have full responsibility. This means that the low paid, permanent, career official has more responsibility than the staff member who is coming from outside the organization with higher salary. The result is frustration and unmotivated work environment for the permanent employees.

6) Sustainability

From the above discussion, it is clear that the employment of advisors as a substitute for permanent officials can not be a sustainable solution. All possible measures should be addressed to ensure sustainable capacity building in the Ministry and affiliated organizations. The Study Team recognizes the difficulties that face improvement efforts, in particular, changing the whole payment structure of the government. But fortunately, there are successful examples in the Ministry of Civil Aviation where almost all the previously governmental entities have been transformed to holding companies where the salary structure is more flexible which helps attracting competent employees.

5.2.2. Lack of Human Resources Development Programs

1) Training

Training and continuous learning is very important to have competent officials. New employees should have initial training that introduces them to the tasks of the organization they are going to join. Japanese organizations and private firms take training of new comers very seriously. Top management officials take part in that training. This approach convinces the new comers that they are an important addition to the organization which motivates them right from the beginning. In addition to this objective, the top management accesses the abilities of the new comers and takes notice of potential leaders. Later on, they use this information to put these potential leaders to rigorous tests and monitor their performance. The Study Team noticed that training of new comers in Egypt is not taken seriously if exists at all. The Ministry of Transport does has an institute for the primarily purpose of training, the Egyptian National Institute for Transport (ENIT), but due to the aforementioned salary structure and neglect from the successive ministers, ENIT has become even unable to breed its own directors, currently ENIT directors are recruited from other educational entities on a temporary based contracts.

The maritime transport sector has made good relationship with the Arab Academy for Science, Technology and Maritime Transport for providing training to those working in the field of maritime transport and the Maritime Research and Consultation Center for providing technical support and consultation. The civil

aviation sector has the Egyptian Aviation Academy which provides training and certification for those working in the civil aviation field. Each of the Egyptian National Railway, the General Authority for Roads, Bridges and Land Transport and the Inland Waterways Transport Authority has its own technical training center. These centers have the mandate to train low level operators and they lack modern facilities. An urgent study should be started to upgrade the capabilities of ENIT and other training centers. Training of personnel is a time consuming process, but without investing in people (humanware), other investment in the infrastructure (hardware) and programs (software) will not attain the targeted objectives.

2) Planned approach for preparing leaders

Top managers are a special breed of officers who, beside their natural leadership qualities, are willing to work under high pressure. They make the difference between success and failure of their organization or firm and they carry great responsibilities toward the society and the nation if they are public servants or toward the share holders if they are working in a private firm. Making these top managers should be a planned endeavor. In Japan and other developed countries preparing top management officers is the work of specialized "Human Resources Development Department" that spent a lot of effort and time for this important task. The human resources development department prepare tailored programs for every potential candidate and closely follow-up his performance. Such programs include assigning the potential candidate to different departments of the organization and collecting reports about his progress from different sources. The programs may also include dispatching him to foreign countries to learn language and to teach him how to look to the problems from different view points. In Egypt, human resources affairs department has a passive role which collects information from direct superiors only. Those superiors write annual reports on the performance of their subordinates where they give these subordinates the highest degrees to help them get the annual meager raise. In the rare cases when a superior gives his subordinate low degrees, he could face official complains from the subordinate. The system ultimately turned to be a routine work where every body gets the highest degrees in these annual reports and thus diminished its role as an evaluation tool.

An overwhelming example is the state of the General Authority for Roads, Bridges and Land Transport where there are 12 district offices that covers the whole country, but failed to produce a capable person for its chairmanship. In between the last 6 chairmen of GARBLT only one chairman was promoted to the chairman post from within GARBLT employees.

3) Importance of foreign language ability

Globally, transportation field is developing very fast and most of new technological and administrative research is in English. If the official does not master English, he will not be able to cope with new ideas and approaches. In Japan they bridge the language gap through massive translation efforts that continuously keep Japanese officials in pace with internationally published papers and articles. Egypt is very close to Europe and there are several international agreements regarding transportation network with the northern coast of the Mediterranean. This means that mastering English is an essential tool especially with the widespread of the internet and the absence of translation efforts.

5.3. Problems Related to Passenger Transport

5.3.1. Modal Share of Passengers

The modal share for year 2010 from the information of MiNTS surveys shows the modal share of shared taxi, bus, car, railways, air transport is 47.3%, 21.4%, 24.6%, 5.2% and 1.4% respectively. This indicates the dominance of road sector. While this dominance is unavoidable, the share of shared taxi is extremely high with adverse consequences on fuel consumption, road congestion and environment.

5.3.2. Passengers Transport by Railway

Any increase in the railway passenger tariff has to be preliminary decided by the board of directors of the ENR and the Minister of Transport then approved by the cabinet of Ministers. The factors affecting the tariff are:

- Class of the passenger coach.
- Availability of air condition
- Trip distance where the fare for the unit of Pass. Km decreases with the increase in the trip distance.

The ENR suffers from chronic problems such as:

- Low tariff that did not cover the operation cost particularly for third class coaches.
- Operation of lines with very low ridership.
- Lower level of maintenance works.
- Insufficient training programs.
- Large number of employees with low efficiency.
- Low Frequency of train operation and frequent delays.

5.3.3. Public Passengers Transport by Road

1) The Operators

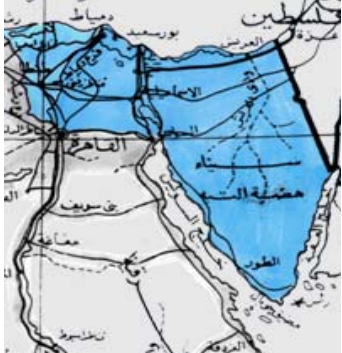
The operators of public passengers transport by road are divided into:


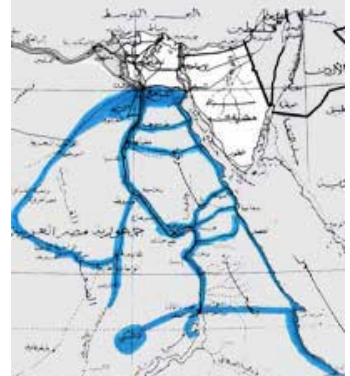
(1) Bus Operators:

a. Public Sector Busses

There are three Public Business Sector bus companies that are subsidiaries of the Holding Company for Maritime and Land Transport (HCMLT). These three companies have been under the ministry of Transport until 1991 when it has been transferred to the Public Business Sector under the Ministry of Investment. There is no fixed tariff in between these companies. Each company tries to increase the tariff by providing additional services such as air-condition and video, etc. Any increase in the tariff is subject to the approval of the Ministry of Transport.

Table 5.3.1 Service Area of the Three Public Sector Bus Companies

Name and service Area	Map of Service Area
East Delta Travel Co. (Middle Delta, East Delta, Suez Canal Zone and Sinai Peninsula)	

Name and service Area	Map of Service Area
West and Middle Delta Bus Company. (West Delta, North West Coast and Siwa Oasis)	
Upper Egypt Bus Company (Upper Egypt, Red Sea and the Southern Oases)	

Source: WebPages of the companies

b. Superjet Bus

The Superjet Bus is a modern fleet busses owned by the Federal Arab Land Transport Company which is a joint venture company by several Arab countries. The company operates bus service in Egypt and other Arab countries. In Egypt, the superjet bus service is available on the following routes:

- Cairo/Alexandria
- Cairo/Port Said
- Cairo/Sharm El Shiekh
- Cairo/Hurghada
- Cairo/Marsa Matrouh

c. Bus Cooperatives

Bus cooperatives are formed within each governorate and provide bus service between the cities within the governorate.

In spite of the fact that Law 55/1975 has enabled the establishment of private sector companies for public transport of passengers, no such company has been established until now. This is a clear indication that the said law does not take the requirements of the private investor into consideration and thus it needs modifications.

(2) Shared Taxi Operators

They are private individuals who own and operate (either by themselves or by employing drivers) of seven seats cars or 14 seats minibuses. The vehicles get the operating license from the traffic police and get their operating line from the governorates. Officially, the shared taxi operates between designated terminals in each city but due to the congestion and waiting time at the terminals, some of these taxis got their passengers from around the railway stations. The modal share of the shared taxi is around 47% of the

total passenger movement in Egypt. The operation of shared taxi on this scale has the following negative effects:

- Increase the congestion at the terminals due to limited space.
- Increase traffic congestion on the road because the numbers of taxis to carry the same number of passengers occupy more space than the equivalent busses.
- Increase traffic accidents due to bad behavior of taxi drivers.
- Negative environmental effects due to the increase in emissions.
- Unfair competition with bus service because the shared taxi does not start the trip with less than full capacity, while scheduled bus operation does not wait for the passengers.

2) Bus and Taxi Terminals

Bus and taxi terminals are important facilities within the passengers' transportation system from origin to destination. In Egypt there are 383 bus and taxi terminals. They are divided into three categories; 232 terminals for shared taxi, 64 terminals for busses and 87 terminals for both shared taxi and busses. Some of these terminals belong to the bus companies and most of them belong to the local governorates. These terminals have the following problems.

- Most of the terminals are constructed at the outskirts of the cities because of land availability, but this means that the passenger has to use other transport mode to reach his destination or to reach the station of other modes such as railway. This means added cost, more time and less comfort for the passengers.
- Most of the terminals are poorly planned regarding the movement of passengers and vehicles.
- Most of the terminals need rehabilitation regarding the pavement, shades, waiting areas, water closets, kiosks etc.
- Most of the terminals suffer from bad management and bad security measures.

3) Regulator for passenger land transport

In 2005 the Prime Minister issued Decree No. 141 to formulate an organization for regulating passengers land transport activities within the governorates. Thereafter a chairman for this organization was appointed by the Minister of Transport but no further action was made to establish the organization and to allocate the required budget for the operation of this organization. After several months, the chairman was transferred to other job in the Ministry of Transport and no further efforts were made to activate this organization. The main reason behind the failure of establishing this organization was the conflict between its responsibilities and the responsibilities of the governorates as stipulated by higher order decrees.

To improve the situation of passengers transport, the Study Team put forth the following recommendations:

- (1) **Increase the share of railway through Improving the railway service by understanding the passenger's needs and responding to them. This may include**
 - Better stations that are clean, well organized, with modern ticketing systems, proper waiting areas, clean kiosks, etc.

- More train frequency particularly on the lines with competition from shared taxi and lines with high demand. .
- Fewer train delays
- Better passenger coaches that are clean, well ventilated, well lighted, with WCs and free from intruders
- Re-consideration of fuel subsidy and road toll fees to minimize the unfair competition of the shared taxi through payment of the real cost.

(2) Increase the share of busses through:

- Review of the laws that inhibit the establishment of private bus companies for intercity operation.
- Encourage the establishment of private bus companies through tax deductions or decrease of custom duties on imported bus (It is to be noticed that busses imported for tourism are exempted from custom duties while busses imported for public transport are not exempted; an unjustified state).
- Improving passenger terminals by relocating them to insure better intermodal movement and redesign these terminals to improve passengers comfort needs.
- Establishment of national passengers land transport regulating authority under the Ministry of Transport for planning, regulating and monitoring of all road passengers transport activities including passenger terminals. The new law for establishing this authority should eliminate all conflicting responsibilities currently under the governorate or GARBLT.

(3) Improve shared taxi services through:

- Encourage the establishment of shared taxi operating companies because such companies will be in better position to respond to the regulations than individual owners whose sole aim is to get maximum revenue.
- Imposing strict rules for getting professional driving license to improve safety of shared taxi.
- Improve the terminals of shared taxi and ensure smooth passengers movement for modal change.

5.4. Problems Related to Freight Transport

5.4.1. Distorted Modal Split

According to the data of MiNTS surveys in 2010, freight transport by roads has the largest share of around 98.6% of the total freight volume. Railways come second with 0.9% and inland water transport has a minor share of 0.5%. The relative share of both the railway and the inland water has been declining in spite of repeated recommendations from previous studies to the necessity of increasing the share of these two modes due to its economic, environmental and safety benefits.

5.4.2. Cargo Transportation by Railway

1) Railway rules regarding cargo transport

2) Classification of Cargo:

For deciding the tariff, cargo is classified into different categories taking into consideration the cargo grading (value), transportation distance and type of cargo (packed or bulk)

3) Cargo Grading:

Originally, the list of cargo transportation rules of 1966 divided the cargo into 11 grades according to its value. Then after, several addendums were added until the grades reached more than one thousand. In practice the cargo transported by rail is limited to up to 50 grades only. The list also includes the minimum weight for each grade. The tariff is decided based on "what the traffic can bear" principle which means that the tariff increases with the increase of the value of the cargo.

4) Transported Distances:

Transported distances are divided into three levels: Up to 250 km, from 250 km to 500 km and more than 500 km. The tariff decreases with the increase in the transport distance.

5) Type of Cargo

Cargo is divided into two types

- a) Packed Cargo with weight not less than 10 kg. packed or wrapped or prepared for transportation in a way that its kind, number, labels and weight can be checked. Such cargo is loaded and unloaded by ENR. Insurance is compulsory and ENR is responsible for the safety of this type of cargo.
- b) Bulk cargo such as (i) Bulk cargo by nature such as coke, sand or clay, (ii) Liquid cargo that is transported by tank cars such as petroleum products, (iii) Packed cargo that are loaded by clients inside transportation facilities connected to the railway network. Such facilities are available in fertilizers factories, cement factories, sugar factories, (iv) Heavy parcels with weight more than 2 tons, (v) Explosives These cargos are treated as bulk cargo with regard to the responsibilities of ENR. The role of ENR is to provide empty cars to the loading site and to transport the cargos to unloading site. The client is responsible for cargo loading and unloading, security and optional insurance.

Table 5.4.1 shows a comparison between the two types of cargo

Table 5.4.1 Comparison between the two types of cargo transportation

Item	Packed Cargo	Bulk Cargo
Cargo Weight	By ENR and is included into the bill of lading.	ENR is not responsible for the cargo weight. Weight is measured to decide transport freight cost.
Number of Parcels	Recorded into the Bill of Lading	ENR is not responsible
Loading and unloading	By ENR	By the Client
Security	Responsibility of ENR – Railway Police.	Responsibility of the client: Clients own guards or by special arrangement with the police
Insurance	Mandatory with the freight cost	Optional, according to the client wish

Source: Preparation of National Plan for Cargo Transportation System, TPA, 2005, in Arabic

6) Full car load or less than car load

Transportation cost per unit weight is less in the case of full car load than that of the case of less than car load.

7) The main reasons for the low share of the railway could be summarized as:

- The railway does not provide transportation from door to door which means that the client should arrange other transportation means to transport his cargo from the origin to the nearest railway cargo terminal and

from the nearest railway cargo terminal to the destination. This could mean that the total transportation cost is more when compared to transportation by truck from the origin to the destination. To overcome this problem, the ENR should offer a door to door transportation. This can be attained by having its own truck fleet and/or having a contract with trucking company. The overall transportation cost should be kept competitive with road transport.

- Although ENR has a schedule table for the movement of cargo trains, there is no guarantee that the schedule table is followed. Some trains are operated while not mentioned into the tables. Departure of some trains is delayed due to several reasons such delay in the arrival of locomotives or delays in loading and unloading or congestion in the marshaling yards. Delays in the arrival of trains are common due to track repair or failure in the operation of locomotives or giving priority to passengers' trains. The result is uncertainty of timely operation which in turns does not encourage clients to use the railway for the transportation of their cargo particularly when they have to arrange unloading facilities at the destination cargo terminal.
- Arranging security staff by the client is troublesome while truck transport do not require security arrangement. To attract more cargo ENR should be responsible for the security of all cargo transported by railways.
- ENR concentrates its efforts on the operation of trains while its promotion and marketing efforts are limited. ENR should embark on an aggressive endeavor aiming at attracting new clients and offering attractive deals to them when compared to road transportation of cargo. ENR may consider the establishment of affiliated company for freight transport. Such company will have more flexibility regarding promotion and services for the promising clientele.
- ENR share of containers is minor while containers are the most convenient form for railway transport. ENR cargo depots should be modernized and provided with containers handling equipments to attract more containerized cargo. It has been noticed that ENR is transporting containers between Sokhna Port and Alexandria Port, thus providing some sort of land bridge avoiding the transit through the Suez Canal. These containers are transit cargo and their destination is not within Egypt. The obvious reason is that such route is cheaper for the shipper than transiting the Suez Canal. Although such shipment may add to the revenue of the ENR, it has negative effects on the Egyptian economy due to the loss of the canal transit fees and consumption of subsidized fuel used for train operation. The Study Team recommends putting an end to such shipments.
- Since the implementation of the privatization policy in Egypt and the increase in private trucks ownership, the business of transport dealers has flourished. Most of these dealers are not registered and they prefer to work with the more flexible market of trucks than working with ENR. This trend can be changed by encouraging the establishment of proper logistics companies together with logistics centers at well studied strategic locations.

The Study Team recommends the establishment a subsidiary for freight transport under ENR. The objectives of this subsidiary would be improving freight terminals and providing them with appropriate cargo handling equipment, provide door to door service by arranging truck transport between the freight terminal and the client premises, starts an aggressive promotion campaign to attract new clients to railway freight service.

5.4.3. Cargo Transportation by Inland Waterways

Although cargo transportation by waterways is the most economical and least polluted transport mode, the share of inland waterways in cargo transportation is minor and has been declining for the last two decades. The reasons behind this state can be attributed to:

1) Navigational Problems

- Due to the continuous movement of the sedimentation on the river bed, the navigational route is changing. This results in water depth less than the draft of the cargo units and results in delaying the trip. Due to limiting the water discharge at the time of least requirement for irrigation (winter time) and due to the large width of the cross section of the river, water level becomes too shallow for navigation. RTA and the Ministry of Water Resources and Irrigation have implemented a project for dredging the navigational route and providing it with navigational aids. Since most of the navigation aids have been stolen, RTA is currently implementing a new navigation system that uses GPS.
- The total capacity of any navigational route is determined by the capacity of the locks. Since the operation period of the locks is limited to about 8 hrs. per day, they constitute a bottle neck for navigation. To increase the capacity of the waterway, locks should operate for 24 hrs a day and seven days per week.
- Some of locks have design problems and consume long time for water pumping. To increase the capacity, such problems should be addressed.
- At present the Ismailia Canal is not navigable and inland water units are not allowed to pass through the Suez Canal. This means that Port Said Port and Suez Port are not connected to the inland water network. To increase the total share of the Inland water in the cargo transport improvement of these routes should be considered.
- El-Dekhila Port is not connected to the inland water network, connecting it will increase the share of inland water in cargo transport.

2) Fleet problems

- The fleet is aged and failure of operation is frequent, thus increase the trip time. New units are under construction by private sector. This will help attract new clients. The procedures for barge licensing are too long. Licensing of fleet operating staff is complicated.

3) Infrastructure problems

- The public river ports do not have proper handling equipment and storage space. Well equipped ports are a prerequisite for attracting more cargo to the inland water. Such new ports can be constructed by private sector if the procedures become smoother.

4) Clients requirements

- The main drawback of river transport is its inability to provide door to door cargo transport. This can be solved if the transport company can arrange truck pickup and delivery from the origin and to the destination respectively.
- At present barges for the transport of containers are not available and container handling equipment are not provided at river ports. Overcoming these two obstacles can improve the demand on river transport.

- Timely and safe delivery of cargo is vital for client planning. All efforts required to attain this objective should be perused.

5.4.4. Cargo Transportation by Roads

1) Trucks ownership and operation

From the point of view of ownership the truck fleet can be divided into four categories:

Trucks owned by public sector companies specialized in cargo transport under the Holding Company for Maritime and Land Transport. The number of these trucks constitutes about 0.3% of the total number of the truck fleet.

Trucks owned by entities and companies that are not specialized in cargo transport but use the trucks for the transport of their own cargo. These include trucks owned by the different ministries, mill companies, petroleum companies and others. The number of these trucks constitutes about 2.4% of the total number of the truck fleet.

Trucks owned by individuals who are registered in and operated by the cooperative societies for cargo transport established in the different Governorates. The number of these trucks constitutes about 4% of the total number of the truck fleet.

Trucks owned by individuals or private transport companies who are not registered in the cooperative societies or owned by private transport companies and operated directly by the owners and/or through transport brokers. The number of these trucks constitutes the major portion of about 93.3% of the total number of the truck fleet. The largest of the private transport companies owns some 540 trucks and trailers of different types. The large private companies act also as freight forwards and they have their systems for custom clearance and they can handle the documentation of international freight transport.

2) Highly fragmented truck operators

From the above, it is clear that the cargo transportation business in Egypt is fragmented between many operators. This status leads to the following problems:

Individual operators can not collect information about the cargo transport market and thus cannot assure planned operation for their fleet. This results in fluctuated operation where some times their fleet is overworked and at other times their fleet stays idle. Also, the lack of information results in high percentage of empty return trip. It is estimated that the empty trips of trucks is between 70% and 80% of the return trip. The individual operator tends to add the cost of the empty return trip in his charge of the going trip. Ultimately, the client bears the added cost. The empty trips add to the wear and tear of the truck and since most spare parts are imported it means economic loss. It also means fuel loss and negative environmental effects.

Individual operators employ individual drivers in most cases without legal contract. This means that the owner has no flexibility to change the driver if he got sick or have other reason to take a leave.

Individual operators tend to neglect periodical maintenance of their trucks which impairs operation safety.

Individual operators can not get concession insurance rates from the insurance companies and thus most of them do not have insurance policies for their trucks other than the mandatory third party insurance enforced by law.

The widespread of individual operators results in the flourish of the business of self proclaimed unofficial transport brokers whose role is to introduce the clients to the individual operators. The commission of those brokers is an added cost to the transport cost.

Individual operators cannot afford the use of modern technologies such as Electronic Data Exchange (EDI), Vehicle Tracking System (VTS), computers, etc. These technologies are developed to improve the operation efficiency of cargo transportation. If the individual operators do not adapt them they will loose there share in the market.

Most of the individual operators are not members of truck associations which make reaching them a difficult task. This means that there is no way to discuss with them methods to improve cargo transportation in Egypt.

Individual operators cannot operate line haul transport of cargo between two logistics centers and/or dry ports with negative effects on the efficiency of cargo transport.

To improve this situation the government can implement one or more of the following suggestions:

To encourage the individual trucks owners to formulate companies, with their trucks constitute their share in the formulated company, either by tax deductions or by decrease in the truck registration fees for operators who have more than certain numbers of trucks.

To encourage the establishment of new trucking companies either by tax deductions or by decrease in the truck registration fees for operators who have more than certain numbers of trucks.

All governmental organizations should limit their trucking deals to large trucking companies or truck associations.

3) Age of the truck Fleet

According to the study titled "Study of Truck Fleet in Egypt, TPA, 2009, in Arabic", the age of 46% of the fleet is more than 15 years, 65% is more than 9 years and 76% is more than 6 years. This means that the truck fleet is aged with dire consequences on traffic safety.

4) Lack of data exchange between producers and whole sellers

Such lack of data exchange results in observing trucks loaded with the same commodity traveling in opposite directions. Such unnecessary trips mean national economic loss that can be avoided by simply providing data exchange system. The data exchange system is usually installed and operated in logistics centers and/or distribution centers. So far Egypt does not have such centers.

5) Axle Load

The maximum axle load determined by the regulation of GARBLT is 13 tons. Because most of the individual operators are not sure about the next shipment and also they have high percent of empty return trip in addition to their eagerness to maximize their revenue, they tend to overload their trucks and exceed the permitted axle load. GARBLT has established weighing stations at selected points on the main roads, but GARBLT has no power to enforce trucks to enter these stations. Police presence is required to compel the truck driver to enter the weighing station which is not always available. If the axle load is more than the allowable load, the truck is fined. The unwarranted axle load has the following negative effects:

It accelerates the deterioration of the pavement and thus shortens its life span and results in increasing the road maintenance cost. The repair cost of road damages due to the excessive axle cost exceeds the collected fine.

After completing the construction and/or repair of GARBLT roads, the contractor is responsible about the road maintenance for three years after which the road is handed over to GARBLT. This means that the contractor bears added cost for the repair of road damages due to the excessive axle load for the said period. This situation leads to ambiguity of responsibility and is a debated issue between GARBLT and the contractors.

The excessive axle load means an increase in the total weight of the truck. This means that the stopping distance when applying the brake will increase which in turn could be the cause of serious accidents.

To rectify this situation, the following counter measures may be implemented.

The readiness of the truck operator to pay the fine of excess load implies that his benefit is more than the fine amount. Accordingly, the fine amount should be calculated so as to be more than the operator's expected benefit. The fine amount should be increased with time to compensate for the inflation effect.

The shipper of the added weight should be fined in addition the fine imposed on the operator. This could prevent the excess load from the origin.

A black list that prohibit all governmental bodies from making transactions with the shipper and/or the operator for a certain period of time should be compiled and distributed to all governmental bodies. This can increase the pressure on both shippers and operators to abide with axle load regulations.

All public entities such as ports, public storehouses, governmental bodies, etc. should prohibit all excessive axle load trucks from entering their premises.

6) Ban on Drawbar Trailers

Since traffic accidents studies have shown that drawbar trailers are the cause of around 33% of traffic accidents, the new version of the traffic law 121/2008 that amended the traffic law 66/1973, which has been previously amended by law 155/1999, has prohibited the licensing of drawbar trailers. The said law granted a grace period of two years until 2010 to give truck owners ample time to modify their truck configuration. However, most truck owners have protested against this law claiming that the grace period is too short. The government has extended the grace period for another two years. Although the ban on drawbar trailers may decrease the total fleet capacity in the short term, it may encourage truck owners to renew their aged fleet.

5.4.5. Cargo Transport by Sea

1) Low Share of the Egyptian Fleet

According to the webpage of MTS, the merchant fleet with deadweight more than 500 tons consists of 95 vessels out of which the operating vessels are 54 vessels. The webpage of the Alexandria Chamber of shipping lists only 48 vessels with accumulated dead weight of 1,227,223 tons. The operating Egyptian Fleet carries only 5.2% of the Egyptian foreign trade. The share of the Egyptian fleet in Egypt's foreign trade in the 1990s was in the range of 10-20% which means that the share of the Egyptian fleet is declining. Although Egypt has good geographic location and has the Suez Canal, its share in international marine activity is minor. Legal, administrative, financial and physical reasons behind this low performance should be explored and rectified. Since foreign vessels are paid in foreign currencies, this situation adds to the already negative trade balance of Egypt.

Table 5.4.2 Egyptian Fleet

	Owner	Type	Number of Ships	Total Dead Weight (Tons)	Age Range (Years)
1	EGYPTIAN NAVIGATION	MPP	4	37490	12~23
		GC	2	16464	30
		RORO	4	12532	22~26
		BC	1	38391	25
		Tanker	1	38117	36
2	ELSALAM SHIPPING	Pass	1	3409	33
3	FAMCO	MPP	1	16113	16
		GC	2	16414	31
4	INTERNATIONAL TRANSPORT	GC	3	42135	31~33
5	MERSEK EGYPT	CS	1	17728	13
6	MISR MARITIME TRANSPORT	BC	2	144598	14
		MPP	2	25202	28
		Pass	1	3133	25
7	MISR EDCO	BC	2	102350	29~31
8	NATIONAL NAVIGATION	BC	5	282336	11~17
		Pass	1	1069	23
9	NATIONAL SHIPPING & INVESTMENT	GC	1	8232	29
		MPP	1	16200	23
10	NEPTON MARINE SERVICE	GC	1	2584	35
11	PYRAMIDS SHIPPING	BC	1	74401	10
		Tanker	4	271536	29~38
12	RED SEA NAVIGATION	GC	3	27085	34~39
13	TRANS MAR	GC	3	26684	27~38
14	YAMANI SHIPPING	GC	1	3020	38
	Total		48	1227223	

BC: Bulk Carrier CS: Container Ship GC: General Cargo MPP: Multi Purpose Pass: Passenger Ship

Source: Webpage of Alexandria Chamber of Shipping

2) Limited Domestic Marine Freight

Although Egypt has long coasts along the Mediterranean and the Red seas, domestic freight movement (Cabotage) between the Egyptian ports is almost non-existent. Small size supply vessels which supply water and other supplies to oil rigs and lighthouses are operating in both seas. Possible reasons could be the lack of enough Egyptian flag vessels and the transit fees of the Suez Canal. With the future priority of the development of coastal areas along the Mediterranean and the Red seas more use of cabotage can help in decreasing the demand on road transport. Legal, administrative, financial and physical procedures that encourage cabotage should be implemented.

5.4.6. Institutional, legal and physical facilities for Logistics

Logistics services are defined as "the process of planning, implementing, managing, and controlling the efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements". General logistics services include: custom clearance, forwarding, storage, loading/unloading, transportation, stripping and stuffing, consolidation and distribution. Value-added logistics include: repacking, customizing, assembly, quality control, testing, repair, equipment maintenance, equipment renting and leasing, cleaning facilities, tanking, information and communication, safety and security services and offices.

5.5. The Status of Logistics in Egypt.

5.5.1. International ranking

The World Bank International Trade and Transport Department publishes the Logistics Performance Index (LPI) every year since 2007. LPI is the weighted average of the country scores on the six key dimensions of logistics performance, namely:

- Efficiency of the clearance process (i.e. speed, simplicity and predictability of formalities) by border control agencies. Including Customs.
- Quality of trade and transport related infrastructure (e.g. ports, railroads, roads, information technology)
- Ease of arranging competitively priced shipment.
- Competence and quality of logistics services (e.g. transport operators, customs brokers)
- Ability to track and trace consignments, and
- Timeliness of shipments in reaching destination within the scheduled or expected delivery time

Egypt rank in the Logistics Performance Index (LPI) of year 2010 is the 92nd. Table 5.5.1 shows the LPI of selected countries for comparison.

Table 5.5.1 LPI and its components for selected countries

Int. LPI Rank	Country	LPI	Customs	Infrastructure	International Shipment	Logistics Competence	Tracking & Tracing	Timeliness
2	Singapore	4.09	4.02	4.22	3.86	4.12	4.15	4.23
24	United Arab Emirates	3.63	3.49	3.81	3.48	3.53	3.58	3.94
27	China	3.49	3.16	3.54	3.31	3.49	3.55	3.91
31	Israel	3.41	3.12	3.60	3.17	3.50	3.39	3.77
32	Bahrain	3.37	3.05	3.36	3.05	3.36	3.63	3.85
33	Lebanon	3.34	3.27	3.05	2.87	3.73	3.16	3.97
36	Kuwait	3.28	3.03	3.33	3.12	3.11	3.44	3.70
39	Turkey	3.22	2.82	3.08	3.15	3.23	3.09	3.94
40	Saudi Arabia	3.22	2.91	3.27	2.80	3.33	3.32	3.78
46	Cyprus	3.13	2.92	2.94	3.13	2.82	3.51	3.44
55	Qatar	2.95	2.25	2.75	2.92	2.57	3.09	4.09
60	Oman	2.84	2.43	2.56	3.36	2.36	2.56	3.57
61	Tunisia	2.84	2.43	2.56	3.26	2.36	2.56	3.57
80	Syria	2.74	2.37	2.45	2.87	2.59	2.63	3.45
81	Jordan	2.74	2.31	2.69	3.11	2.49	2.33	3.39
92	Egypt	2.61	2.11	2.22	2.56	2.87	2.56	3.31

The scores are from one to five, one being the worst performance for the given dimension.

Source: World Bank

1) Logistics service providers in the internet

The number of self claimed logistics service providers in Egypt as found in the internet is very limited and most of them are in fact either transport companies or forwarding companies or both. It is difficult to find real third party service provider (3PL) who is capable to provide integrated logistics service.

2) Logistics service providers in Logistics Middle East Magazine

It is very difficult to find articles or advertisements about logistics service providers in Egypt in the Logistics Middle East Magazine which is the most popular magazine in the field of logistics related information.

3) Logistics Centers, Distribution Centers and Dry Ports

Egypt has neither logistics centers nor distribution centers. The only officially recognized dry port at Bashteel is not yet established due to legal conflict. The existing facilities are considered as bonded warehouses.

Logistics centers are the undisputed arena for logistics activities. They can have bonded areas and thus can be designated as the destination of inbound freight. They can be used as transport terminals for line haul transport between logistics centers or between logistics centers and maritime ports. They can be used as a multimodal exchange station and thus help integrate transport modes. They can be used as warehouses for the storage of goods far from the populated areas of the city centers and thus provide safe and reliable storage for such goods as timber, refrigerated/frozen goods and dangerous goods which in turn can help the development of the present stores into more profitable business. They provide a convenient hub for information exchange between the stakeholders in the logistics business. They can be used as distribution centers receiving large shipments and dismantle them for dispatch into smaller shipment. They can be used for value-added activities and thus support local and international industries.

Distribution centers are useful components into the supply chain management because they are used for the efficient distribution of goods and for the collection of the returned merchandise.

Dry ports are bonded areas which can be designated as the destination of inbound cargo. It can be also used as intermodal nodes and storage facilities.

4) Modest Level of Automation and Electronic Data Exchange

Container terminals in the ports of Alexandria, El-Dekheila, Port Said and El Sokhna are equipped with the state of art software for container terminal operations. However, installing Electronic Data Interchange (EDI) in the shipping agents, logistics providers, and clearance agents is only available at El Sokhna Port.

5) Lack of Multimodal Operators

Egypt lacks multimodal operators who can assume responsibility for the execution of multimodal transportation contract.

6) Low Containerization Rates

Improvement of multimodal and logistics operation is closely related to the extent of cargo containerization. The volume of container movement in Egypt has been increasing for the last decade. However, due to the trade imbalance many empty containers remain in Egypt. In general terms, containerization in Egypt is still low compared to containerization in Egypt's trade partners in Europe.

7) Limited Training and Accreditation of Human Resources

Although the Arab Academy of Science, Technology and Maritime Transport (AASTMT) offers logistics related education in its department of Management of International Transport & Logistics, such education does necessary lead to accreditation from internationally recognized institutes. Since logistics are inherently an international business, international accreditation is an essential qualification for the logistics services providers. Moreover, third party logistics providers need access to and mastering of the handling

of modern software used for optimization of the supply chain management. The Egyptian National Institute for Transport (ENIT) may be able to provide such training and accreditation if it can improve its human resources and other facilities so as to reach an internationally recognized status.

8) Lack of Proper Institutional Arrangement for Logistics

There is no governmental organization in charge of the development and implementation of logistics development policy. Although the Transport Planning Authority (TPA) has conducted various studies related to logistics development, TPA does not have a designated department for logistics planning and there is no organization to implement the recommendation of these studies.

The Study Team recommends the establishment of logistics department within TPA for the continuous updating and improvement of logistics policies and the establishment of a higher committee for national logistics development. Such committee should be formed under the chairmanship of the Minister of Transport with representatives from all related entities of the Ministry of Transport in addition to representatives from other concerned ministries and private stakeholders.

The members of the Higher Committee for National Logistics Development can be:

Chairman: Minister of Transport

Members: Vice Chairman of TPA

- Chairman of Marine Transport Sector
- Chairman of General Authority of Roads, Bridges, and Land Transport
- Chairman of Egyptian National Railway
- Chairman of River Transport Authority
- Chairman of the Land Ports and Dry Port Authority
- Director of Egypt National Institute for Transport
- Representative from the Suez Canal Authority
- Representative from the Ministry of Civil Aviation
- Representative from the Ministry of Trade and Industry
- Representative from the Ministry of Investment
- Chairman of the Egyptian International Freight Forwards Association (EIFFA)
- Representative from Truck Operators Association (To be established)
- TPA should act as the general secretariat of this higher committee.

5.6. Transport Demand Management

Transportation is an important economic and human activity. However, it is very costly one for both the individual and the society. Transportation infrastructure requires huge investment for construction and

maintenance. Fuel subsidy constitutes a heavy burden on the national budget. Environment pollution is another social cost. Traffic accidents have their devastating effect on the families and on the national economy.

- To rationalize the national transportation cost, all possible measures should be taken to eliminate or at least to decrease the unnecessary trips and to utilize the most economic transport mode. The following measures will help improve the transport demand management.
- Decentralization of social services eliminates the need to travel to the capital city. These services may include education, health care, commercial centers, entertainment, etc.
- Increase public transport instead of excessive use of private car. This can be attained by having a good coverage of the public transport network and efficient park and ride facilities.
- Applying the Polluter Pays Principle (PPP) through charging road toll fees according to the traveled distance instead of the flat fee.
- Decrease or elimination of fuel subsidies which are effectively a subsidy for the rich. Part of the decreased subsidy may be channeled to improve public transport.
- Decrease empty truck trips by providing information exchange systems and improve logistics.

Each of the above mentioned measures need careful study and continuous evaluation of its merits and demerits. This task should be entrusted to the TPA after its enhancement.

CHAPTER 6: DISCUSSIONS AND RECOMMENDATIONS

In this section, only the main topics of reform will be discussed.

6.1. Fragmented Transport Sector

From the contents of this Technical Report, it is clear that the transport sector is fragmented between many governmental bodies. This state inhibits integrated planning and results in distorted priorities. Making use of the Japanese example and sharing the revolutionary spirit in Egypt, the Study Team put forth the following bold recommendations arranged in descending order:

- i) ***Restructuring all the transport related activities to be under one ministry.*** This means that the Ministry of Transport should be in charge of civil aviation, tourism and the Suez Canal. All national transport related projects planned by the Ministry of Housing, Public Utilities and New Urban Communities should be reviewed and implemented by the Ministry of Transport. All public companies operating in the transport sector should be under the Ministry of Transport. The Ministry of Transport should be responsible for the planning, supervision and follow-up of all transport related projects implemented by the local governorates such local roads, bus and shared taxi terminals and ferry crossings across the River Nile and other canals. To implement this recommendation, the role of the Transport Planning Authority should be enhanced to cover the transport planning of all transport modes and transport activities to insure integrated multimodal transport system and to improve logistics activities.
- ii) ***If the above recommendation can not be implemented, a Higher Council for National Transport should be established.*** This higher council should be under the chairmanship of the Prime Minister and its members should include the Minister of Transport, Minister of Civil Aviation, Minister of Tourism, Chairman of the Suez Canal Authority, Minister of Interior, Minister of Environmental Affairs, Minister of Trade and Industry and Minister of Investment. The Transport Planning Authority (after enhancement) should act as the secretariat of this higher council.
- iii) ***If either of the above mentioned recommendations can not be implemented, a Standing Committee for National Transport formed from higher representatives of the related ministries and authorities should be established.*** The Transport Planning Authority (after enhancement) should act as the secretariat of this standing committee.

6.2. The Need for a Unified Data System

In this age of information technology, collecting data and arranging them into usable format has become a profession. Sound planning of transport activities depends to a great extent on the accuracy and reliability of the data system. The Ministry of Transport does not have a centralized data bank. The Maritime Transport Sector does have its own data bank, but other authorities do not have data collection system. The Ministry of Civil Aviation also has its own data bank. Due to the new trends of intermodal operation in

passenger transport and logistic systems, having a centralized data bank that collects and updates all data and information including those of maritime transport and air transport has become a necessity. This centralized data bank should be established at the Transport Planning Authority as one program in its modernization and development scheme.

6.3. The Need for Enhanced Transport Planning Capabilities

In its present state, the Transport Planning Authority is not capable to pursue its role as a national planning organization. This is mainly due to three factors: lack of qualified personnel, lack of adequate finance and lack of adequate facilities. Moreover the Study Team envisages the enhancement of the capabilities of the TPA to cover all transport related activities including aviation, tourism and the Suez Canal. Since the core problem is finance, one solution is to allocate a certain percent of the budget of all transport related organizations (public and private) for research and development and the collected amount is channeled to the budget of TPA. This arrangement will help to foster closer relationship between TPA and these organizations. TPA will be able to conduct the required studies for the different transport organizations and through such studies will be able to collect the unified data mentioned above. Qualified personnel should be recruited for the key posts of TPA. Foreign advisors can be requested from donor countries to restructure TPA. Such restructure may introduce new departments such as multimodal integration department, logistics department, transport modeling department and transport demand management department.

6.4. Human Resources Development

Human resources development is of top priority for the implementation of successful transportation system. Restructuring and enhancement of Egypt National Institute of Transport and other training organizations should have utmost attention of transport sector decision makers. To overcome the finance problem, a transport training fund may be established using contributions from public and private enterprises in addition to finance by international donors.

6.5. Lack of coordination mechanism with other governmental organization and stakeholders

The relationship between governmental organizations in Egypt has a of very rigid character. Communication between organizations in the same ministry is always done through official letters and communication between organizations in different ministries is mostly done through the ministers themselves. As such, communication is a very time and effort consuming process especially when such communications takes the form of exchanging several official letters for the same subject. Standing committees between different ministries do not exist. In the cases where the head of one organization is a member of the board of directors of other organization, he tries to avoid conflicting arguments and the board of directors ends up as a rubberstamp board that passes whatever the chairman wants. To improve the situation, the Study Team has two suggestions; the first is to have standing committees with member having enough delegation of authority to make final decisions, the second is to formulate a homepage for each organization with access only to authorized persons through passwords. The decisions taken by each committee and/or board of directors should be published in that homepage. This will oblige the committees and/or the boards of directors to take matters seriously. It will also help to increase the transparency of decision making process.

In view of the intermodal aspects between air transport and ground transport of both passengers and cargo, there should be a strong relationship between the Ministry of Transport and the Ministry of Civil Aviation. Good intermodal facilities at international airport have become standard activity for the comfort

and efficiency of passenger transport. Most of these airports have railway links to connect the airport to down town. Logistic systems that integrate air and ground transport have become the norm of the transport activities which could include what is called "acceleration in motion" where sea transported cargo is transferred to air transport in the middle of the trip to meet short term changes in demand. To insure maximum coordination, many developed countries, including Japan, have both ground transport and air transport under one ministry.

Efficient and safe tourist transportation is a key factor in tourism development. Due to several accidents of tourist busses, the Ministry of Tourism is currently constructing a large scale drivers training facility in Helwan, Cairo Governorate and is improving road signs at touristic sites. Such activities should be coordinated between the Ministry of Tourism and the Ministry of Transport to attain maximum benefits from the available resources of both ministries.

The Ministry of Interior is in charge of issuance of driving license, vehicle operation license, enforcement of traffic law and regulations and the security aspects of the transportation facilities. It is imperative to have strong relationship between the Ministry of Transport and the Ministry of Interior for attaining safety targets and enforcement of maximum axle load regulation on trucks.

6.6. Fragmentation of Responsibilities between Different Organizations

The General Authority for Roads, Bridges and Land Transport is in charge of national road network which is less than half the total roads of Egypt. The remaining roads are the responsibility of local governorate. This could be justified if the local governorate has their own revenue as in the case of Japan where part of the revenues of some taxes go directly to the local governments. In Egypt, the Governorate revenues are limited to some fees for granting operation licenses to workshops, retail outlets, local taxi operation and similar activities. Such revenues are not used, in principle for road construction. The budget for local roads is from the national budget. Moreover, the technical capabilities of the Governorates are limited. The result is very low standard of the local road network. When the rural road passes through a small city or village, and since it is in most cases, the only paved road in these communities, it becomes the main business street with all types of activities. This state leads to even lower efficiency of the rural road. It should be noticed that if the local road network is improved, it could attract part of the traffic on the national road network and thus it could alleviate part of the congestion. All the roads in Egypt should be under GARBLT or GARBLT should have the power to enforce reasonable standards for the construction of rural roads. The governorate should concentrate their resources in providing business street(s) as an alternative of using the rural road for business activities.

6.7. Fragmented Cargo Transport Operators

The largest share of cargo transport is by private small scale truck owners. This state has negative effects on cargo transportation business in Egypt.

In general, the government should encourage the establishment of large private sector or joint companies for freight transport. This encouragement could include, but not limited to:

- Taxes exemptions and/or reductions for the companies that reach certain volume of transport per annum. Since large scale companies has rather higher cost of overhead expenses, insurance costs, maintenance cost, etc. it will be difficult for them to compete with small scale operators who are not loaded with such expenses. In return large scale companies will provide efficient transport system that will improve the economy as a whole.

- Lower land price for the construction of depots, workshops, warehouses, etc.
- Preference interest rates on loans for the finance of their fleets and other facilities.
- Facilitate the establishment of multi-modal transfer facilities at major railway passenger stations and railway or river cargo depots.

In addition to the above measures, the Ministry of Transport should encourage the establishment of Truck Operators Association. The objectives of this association may be similar to those of the Egyptian International Freight Forwarding Association.

The Study Team recommends the establishment of Freight & logistics Regulating Authority. This Authority will regulate all aspects of freight transport and logistics for both public and private operators. This authority together with the recommended Passengers Regulating Authority will replace the Land Transport Sector of GARBLT.

6.8. Improving the Modal Split for Passenger Transport

Shared taxi has the largest share in passenger transport. This has negative effects on road and terminal congestion, increase traffic accidents, degrade the environment and increase fuel consumption. All efforts should be made to improve this state through:

- a) Increase the share of railway by providing better services that include more frequent and punctual train operation, cleaner passenger coaches and cleaner stations and improved connections with other modes of transport. The ENR may establish a new subsidy for freight transport.
- b) Increase the share of busses through removing the legal obstacles for the establishment of private bus companies, improve bus terminals and the establishment of regulator for road passenger transport. The Holding Company for Maritime and Land Transport is the most appropriate organization to expand its transportation activities of passengers by expanding its bus companies and/or establish new joint ventures bus companies with private sector.
- c) Encourage the establishment of large scale shared taxi operators.

The Study Team recommends the establishment of Passengers Regulating Authority. This Authority will regulate all aspects of passengers transport for both public and private operators. This authority together with the recommended Freight & logistics Regulating Authority will replace the Land Transport Sector of GARBLT.

6.9. Improving of law enforcement

With Egypt having one of the highest traffic accident rates, strict measures for granting driving license together with the adoption of traffic law enforcement should be given high priority.

6.10. Logistics

Egypt rank in the Logistics Performance Index (LPI) of year 2010 was the 92nd. In view of the central geographic location at the intersection of the old three continents and the existence of the Suez Canal, Egypt deserves better rank.

To develop international and domestic logistics, The Study Team recommends the establishment of a Higher Committee for National Logistics Development. The membership of this committee will encompass all the ministries and organizations related to logistics in Egypt.

In addition to the establishment of the committee, others measures may include:

- Introducing of logistics training and accreditation programs in ENIT.
- Transforming the banks of the Suez Canal into logistics centers with added value activities.
- Establishment of a chain of logistics centers, dry ports and distribution centers for the improvement of the supply chain management in Egypt.
- Providing the required institutional and legal framework for the establishment of 3PL and 4PL service providers and multimodal operators. .
- Encourage containerization through the removal of all physical and legal obstacles.

6.11. Improving of Maritime Transport

Marine transport has witnessed several improvements in the last decade including the operation of modern container terminals at the old marine ports. However, there still many items that need attention:

- The share of the Egyptian fleet in the transport of the Egyptian foreign trade is very low. Legal and investment obstacles behind this state should be addressed.
- Domestic marine freight is very limited. Diverting freight that has its origin and destination on the sea shore to cabotage will decrease the pressure on land transport.
- Top managers of the maritime transport organizations should be selected through competitive methods instead of the current state of appointing retired navy officers.
- An independent regulator should be established to replace the current status of having port authorities as both regulators and operators of some of the port activities.
- Introduction of modern technologies such as electronic data exchange should be enhanced.

6.12. Assessment and Implementation of Transport Demand Management

Without implementing measures for the management of transport demand, the ever growing use of private cars and shared taxi will have negative results on the environment and the economy. Transport management measures may include:

- Decentralization of services to eliminate or decrease the unnecessary trips.
- Increase the share of public transport modes
- Applying the Polluter Pays Principle (PPP) through charging road toll fees according to the distance.
- Decrease or elimination of fuel subsidies

- Decrease empty truck trips through the introduction of information exchange.

These measures should be carefully studied, evaluated and monitored by the Transport Planning Authority.