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KENYA NATIONAL ASSEMBLY

NINTH PARLIAMENT - FIFTH SESSION

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DEPARTMENTAL COMMITTEE ON ENERGY,  
COMMUNICATIONS AND PUBLIC WORKS

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**REPORT ON THE STUDY VISIT TO THE ARAB  
REPUBLIC OF EGYPT AND UNITED ARAB EMIRATES  
ON MARCH 10 TO 28, 2006**

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National Assembly  
Parliament Buildings  
NAIROBI

June 2006

## PREFACE

Mr. Speaker Sir,

1. The Departmental Committee No. B. On Energy, Communications and Public Works was constituted at the commencement of the Ninth Parliament pursuant to provisions of standing Order 151 (1) and part (4) mandates the Committee to do the following while carrying out its functions: -
  - i. to investigate, inquire into and report on all matters relating to its mandate, management, activities, administration, operations and estimates of the assigned Ministries and Departments;
  - ii. to study the programme and policy objectives of Ministries and Departments and the effectiveness for the implementation;
  - iii. to study and review all legislation after the first reading subject to the exemptions under Standing Order No. 101A(4);
  - iv. to study, assess and analyze the relative success of the Ministries and Departments as measured by the results obtained as compared with its stated objectives;
  - v. to investigate and inquire into all matters relating to the assigned Ministries and Departments as deemed necessary and as may be referred to it by the House or a Minister; and
  - vi. to make reports and recommendations to the House as often as possible including recommendation of proposed legislation.

Mr. Speaker Sir,

2. The Committee oversees the following Government Ministries and Department, namely: -
  - i. Ministry of Energy;
  - ii. Ministry of Transport;
  - iii. Ministry of Roads and Public Works, and
  - iv. Ministry of Information and Communications.

3. The membership of Committee comprises: -

- i. The Hon. Gideon Moi, MP. - **Chairman**
- ii. The Hon. Jimmy Angwenyi, MP.
- iii. The Hon. Maoka Maore, MP.
- iv. The Hon. Wafula Wamunyinyi, MP.
- v. The Hon. Gonzi S. Rai, MP.
- vi. The Hon. (Eng.) Philip Okundi, MP.
- vii. The Hon. Julius Arunga, MP
- viii. The Hon. Lucas Maitha, MP.
- ix. The Hon. Viscount Kimathi, MP.
- x. The Hon. Elias Mbau, MP.

**Mr. Speaker Sir,**

4. The following members undertook the study visit: -

- i. The Hon. Jimmy Angwenyi, MP. - Leader of the delegation
- ii. The Hon. Maoka Maore, MP.
- iii. The Hon. Lucas Maitha, MP.
- iv. The Hon. Julius Arunga, MP.
- v. The Hon. Gonzi S. Rai, MP.
- vi. The Hon. Elias P. Mbau, MP.
- vii. The Hon. Wafula Wamunyinyi, MP

And accompanied by: -

- viii. Mr. Rana K. Tiampati - Third Clerk Assistant/Clerk to the Departmental Committee.

## **OBJECTIVES AND JUSTIFICATION**

5. The Committee proposed to undertake a study visit to the Arab Republic of Egypt and United Arab Emirates to make a comparative study of Road, Transport and Energy Sub sectors. Hence, the objectives of the visit are: -

- i. to hold meetings and talks with government officials and other stakeholders in the Energy, Transport and Communication sectors;

- ii. to tour and visit Energy, Communications and Transport infrastructure facilities with a view to learning about their operations and how Kenya could benefit from their establishment and management;
- iii. to tour renewable energy sites in the countries - wind and Solar; and
- iv. to familiarize itself with the operations of the Departmental Committees in Parliaments of the host countries, and specifically those Committees with similar dockets;

**Mr. Speaker Sir,**

- 7. The Committee is grateful to the Hon. Speaker and the Liaison Committee for authorizing the visit, and the office of the Clerk for providing the necessary logistical and technical support.
- 8. Further, the Committee is grateful to the Kenyan Ambassador to Arab Republic of Egypt and United Arab Emirates and staff for facilitating the visits and arranging for the meetings with the host Countries.

**Mr. Speaker Sir,**

- 9. On behalf of the Committee, it is now my pleasant duty to lay on the table of the House the report of the Committee on the visit, pursuant to the provisions of Standing Order 162.

**SIGN.....**

**THE HON. JIMMY NURU ONDIEKI ANGWENYI, MP**  
**LEADER OF THE DELEGATION,**  
**DEPARTMENTAL COMMITTEE ON ENERGY, COMMUNICATIONS**  
**AND PUBLIC WORKS.**

**DATE.....**

government to float the currency in January 2003, leading to a sharp drop in its value and consequent inflationary pressure. The development of an export market for natural gas is a bright spot for future growth prospects, but improvement in the capital-intensive hydrocarbons sector does little to reduce Egypt's persistent unemployment.

## **HISTORICAL OVERVIEW OF THE DEVELOPMENT OF MODERN ERA EGYPT**

By virtue of all his up-to-date all encompassing reforms, Muhammad Ali is truly considered the founder of Modern Egypt. He encouraged and sponsored men of learning, scientists and artists. He built a powerful army as well as a military academy. A ship building industry was started in Boulaq, Cairo together with a shipyard in Alexandria.

He specially attended to the administration of government affairs. During the first half of the 19th Century, a full-scale economic revival was in full swing. Special attention was given to agriculture and irrigation, where barrages, dams and canals were built. In industry, Muhammad Ali adopted a policy of dispensing with foreign-made products, and creating national factories and plants to meet the needs of the army and the public. In trade, he sought to provide security for internal trade routes and create a foreign trade fleet. During his reign, trade flourished. At the same time, Muhammad Ali was enthusiastically interested in spreading education to cater government manpower needs. Schools of various levels and specialties were built and educational missions were sent to Europe to transfer modern sciences to Egypt.

After his death, Muhammad Ali's successors tried their best to follow his suit by attempting to catch up with European civilization. During the reign of Khedive Ismail, Egypt witnessed an awakening administrative reform, while agriculture, industry, construction and architecture prospered. Most notable of his achievements was the establishment of the Opera House, railroads and the Suez Canal which was opened to international navigation in 1869. Thus, the 19th Century was one of enlightenment, rediscovery of the Egyptian power system and development of human wealth. By the end of the century, Egypt

## OVERVIEW OF THE ARAB REPUBLIC OF EGYPT

### BACKGROUND

The regularity and richness of the annual Nile River flood, coupled with semi-isolation provided by deserts to the east and west, allowed for the development of one of the world's great civilizations. A unified kingdom arose circa 3200 B.C. and a series of dynasties ruled in Egypt for the next three millennia. The last native dynasty fell to the Persians in 341 B.C., who in turn were replaced by the Greeks, Romans, and Byzantines. It was the Arabs who introduced Islam and the Arabic language in the 7th century and who ruled for the next six centuries. A local military caste, the Mamluks took control about 1250 and continued to govern after the conquest of Egypt by the Ottoman Turks in 1517. Following the completion of the Suez Canal in 1869, Egypt became an important world transportation hub, but also fell heavily into debt. Ostensibly to protect its investments, Britain seized control of Egypt's government in 1882, but nominal allegiance to the Ottoman Empire continued until 1914. Partially independent from the UK in 1922, Egypt acquired full sovereignty following World War II. The completion of the Aswan High Dam in 1971 and the resultant Lake Nasser have altered the time-honoured place of the Nile River in the agriculture and ecology of Egypt. A rapidly growing population (the largest in the Arab world), limited arable land, and dependence on the Nile all continue to overtax resources and stress society. The government has struggled to ready the economy for the new millennium through economic reform and massive investment in communications and physical infrastructure.

### ECONOMIC OVERVIEW

Lack of substantial progress on economic reform since the mid 1990s has limited foreign direct investment in Egypt and kept annual GDP growth in the range of 2%-3% in 2001-03. However, in 2004, Egypt implemented several measures to boost foreign direct investment. In September 2004, Egypt pushed through custom reforms, proposed income and corporate tax reforms, reduced energy subsidies, and privatized several enterprises. The budget deficit rose to an estimated 8% of GDP in 2004 compared to 6.1% of GDP the previous year, in part as a result of these reforms. Monetary pressures on an overvalued Egyptian pound led the

witnessed many revolts against the foreign intervention.

The nationalist movement grew stronger and several popular revolts took place. However, the Orabi Revolution (1882 AD) ended up with Egypt being occupied and declared a protectorate by Britain in 1914. Accordingly, Egypt officially broke off from Ottoman suzerainty.

Thus, Egypt entered the 20th Century, suffering under the yoke of British colonialist rule that plundered its resources. Popular resistance and national movements soon escalated under the nationalist leaders: Mostafa Kamel, Muhammad Fareed and Sa'ad Zaghloul, leading the 1919 Revolution calling for independence. The British occupation of Egypt came to an end and the country was declared as an independent state in 1922. The first Egyptian Constitution was issued in 1923. Later, there ensued a period of economic revival led by the great nationalist economist Tala'at Harb, leading to the establishment of an industrial, productive and services base in all sectors of the economy.

#### **The July 23, 1952 Revolution**

Under the leadership of Gamal Abdel Nasser, the July 1952 Revolution brought about a host of achievements including the enactment of the first agrarian reform law and the first 5-year plan for socio-economic development in the history of Egypt (1960). Industry and production were developed. The Aswan High Dam was completed (1960-1970). Outstanding achievements were also made in the fields of education, health, agriculture and construction. In the field of foreign policy, Egypt adopted a policy of positive neutrality and encouraging national liberation movements. Cognizant since its inception of Egypt's leading role in the Arab world, its growing military power and untiring defense of the Palestinian case in world forums, Israel launched a treacherous assault on June 5, 1967 against Egypt, Syria and Jordan, ending up with Israeli occupation of Sinai, the Golan Heights and the West Bank of Jordan. The Egyptian army managed successfully to stand the test of the Israeli troops in a war of attrition. In the meantime, the leader of the July Revolution, Gamal Abdel Nasser, died in September 28, 1970.

President Anwar el-Sadat proceeded with the policy of mobilizing all state resources for the liberation of the occupied land. On October 6, 1973, both Egyptian and Syrian armies simultaneously launched a battle

for liberating Arab lands from Israeli occupation. A few hours after the start of the war, the Egyptian army victoriously crossed to the east bank of the Suez Canal where the Egyptian banner was raised high. In the October War, Egyptian forces scored an outstanding victory. This prompted President Anwar as-Sadat to contemplate a radical settlement of the Arab-Israeli conflict and the establishment of just and lasting peace in the Middle East. There followed the peace treaty with Israel (Camp David Accord) in March 26, 1979, with the participation of USA. This treaty was preceded by President Sadat's visit to Israel in 1977. On April 25, 1982, Israel withdrew its forces from the Sinai Peninsula and later from the frontier strip of Taba pursuant to arbitration by the International Court of Justice.

Following President Sadat's death in 1981, President Muhammad Hosni Mubarak assumed office. Since then, he has sought to bring about internal stability, improve and firmly establish democratic practice, the rule of law and help realize social peace and national unity. Mubarak's main concern centers on achieving comprehensive development.

## **LEGISLATIVE OVERVIEW**

### **Jurisdiction of the People's Assembly**

The People's Assembly is the parliament of Egypt holding the authority of legislation and monitoring. Its members are the representatives of the Nation, expressing its will. According to the text of the Constitution, the People's Assembly is "the Legislative Authority which endorses the State policy and general plan for economic and social development, the general State budget, besides monitoring the Executive Authority. All these talks are performed in compliance with the Constitution. Under the Constitution, the minimum number of members is 350. The term of the House is 5 years as of the date of its first meeting. Election for a new House takes place within the 60 days prior to termination. The members are elected in public direct ballot under the supervision of judiciary members. The People's Assembly consists of 454 members, 10 of whom are appointed by a Republican Decree.

### **People's Assembly Committees**

There are 18 specialized committees of the People's Assembly helping exercise its legislative and monitoring duties:

- The Constitutional and Legislative Affairs Committee;
- The Plan and Budget Committee;
- The Economic Affairs Committee;
- The Foreign Relations Committee;
- The Arab Affairs Committee;
- The Defence, National Security and Mobilization Committee;
- The Proposals and Complaints Committee;
- The Manpower Committee;
- The Industry and Energy Committee;
- The Agriculture and Irrigation Committee;
- The Education and Scientific Research Committee;
- The Religious, Social and Religious Endowments Committee;
- The Culture, Information and Tourism Committee;
- The Health and Environment Affairs Committee;
- The Transportation and Telecommunications Committee;
- The Housing, Public Utilities and Reconstruction Committee;
- The Local Government and Public Organizations Committee; and the Youth Committee

### **Parliamentary bodies**

Seven People's Assembly bodies are tasked with drawing up and studying issues being looked into by the Assembly or issues related to the parliamentary practice.

These bodies are as follows:

- The People's Assembly Speaker
- The PA bureau.
- The General Committee.
- The Evaluation Committee.
- The Specific Committees.
- The Specialized and Joint Committee.
- The parliamentary organ.

### **Political organization**

Emergence of the political parties in Egypt in the 19th century was a reflection of social, economic and cultural interactions as well as certain historical, national and political circumstances, leading to

the creation and development of modern institutions of government administration and society in Egypt such as the parliament, cabinets, political parties, syndicates, etc.

Emergence of the political parties in Egypt has been gradual and gone through successive stages. Political parties have firstly been formed as secret societies that were followed by formation of political groups.

The National Democratic Party (NDP) was the first party formed in 1907 by Mostafa Kamel. In less than ten years, there was a great variety in these parties; in their nature, formation, organization, power, their popular base and platforms. There were national parties, groups dominated by the royal palace, others formed by the occupation authority as well as ideological parties expressing certain ideologies.

In 1907-1920, the already formed political parties in Egypt were a starting signal for the dissemination of political parties in Egypt; however, they were restricted due to the British occupation and the Egyptian subordination to the Ottoman Empire. The February 1922 Declaration acknowledging Egypt's independence and the issuance of the 1923 Constitution have led to establishing a royal constitutional rule based on party pluralism and principles of liberal democracy.

During 1923-1952, Egypt witnessed a remarkable experience rich in political and democratic practices, however, such an experience was marked with many defects such as the British occupation, foreign intervention in Egypt's affairs and the royal palace's interference in political life. With the outbreak of the July 1952 Revolution, the Egyptian regime worked to liquidate the opposition. In January 1953, an enactment was adopted on disbanding the political parties and adoption of the one-party rule.

#### **One-party rule (1953-1976)**

By enacting the law of disbanding the political parties, Egypt witnessed an era of the one-party rule which lasted till 1976 when late president Anwar Sadat declared the era of party pluralism in

the country. During this period, several groupings were formed as follows:

#### **The Liberation Group**

On January 23, 1953, the Liberation Group was established to replace the disbanded political parties with the ultimate goal of making a political mobilization in support of the Revolution Command.

#### **The National Union**

On January 16, 1956, late president Gamal Abdul Nasser declared end of the interim period and put a new Constitution for referendum. In accordance with the 1956 Constitution, political parties were not allowed. Instead, the National Union was formed to become the political melting pot of all classes of the Egyptian people.

#### **The Arab Socialist Union**

On October 29, 1962, President Nasser issued a decree on forming the supreme executive committee of the Arab Socialist Union. Its basic law was enacted on December 8, 1962. Enrollment into the nascent organization was announced in January 1963. Unlike its predecessors, the Arab Socialist Union was an association for the Egyptian working classes and not a grouping for the entire people. It was also a distinguished status for workers and farmers by guaranteeing half of the seats of the elect popular and political groupings for workers and farmers.

The Arab Socialist Union reflected goals of this stage as the following:

- 1-The state control over the national economy and establishing a public sector to undertake the development process.
- 2-The Arab nationalism.
- 3-The negative solution for classes' struggle.
- 4-Democracy.
- 5-Commitment to religion and freedom of faith and worship.

Following the 1967 War and massive demonstrations in February and October 1969, Egypt was in a state of political turmoil, leading to raising calls for granting citizens more democratic rights and demanding self-expression for political affiliations. Following assuming office in 1970, late president Anwar Sadat adopted the slogans of rule of law and the institutional state. In August 1974, Sadat put forward a working paper to revamp the Arab Socialist Union.

In July 1975, the Arab Socialist Union's general conference adopted a resolution on establishing political forums within the union for expression of opinion in accordance with basic principles of the Egyptian Revolution.

In March 1976, President Sadat issued a decree allowing three forums to represent the right wing (the Liberal Socialist Organization), the middle wing (Egypt Arab Socialist Organization) and the left wing (the National Progressive Unionist Organization). During the first meeting of the People's Assembly on November 22, 1976, President Sadat declared the three political organizations turned into parties. In June 1977, the law of political party was enacted.

#### **Party pluralism era: Sadat's era (1977-1981)**

The enactment of the parties' law in 1977 demonstrated Egypt's political regime officially turned into the era of party pluralism. However, the law enactment had not meant cancellation of the Arab Socialist Union; rather it had given the Union more powers to allow party formation. The law stipulated party principles should not run counter to the Shari'ah tenets and preserve the national unity, social peace, the socialist and democratic system as well as socialist gains. It also stated that the party should not be formed on ethnic, racial, geographical or discriminatory bases due to sex, origin, religion or creed.

Following the signing of the peace accord with Israel in 1979, the law further stipulated that the party founders and members should not be opponent to the peace accord.

Political parties during Sadat's era:

1. Egypt Arab Socialist Party (The National Democratic Party).
2. The Liberal Socialist Party.
3. The National Progressive Unionist Party
4. The Wafd Party.
5. The Socialist Labor Party.

The stage of party pluralism in Sadat's era (1977-1981) witnessed several important political transformations that stymied the development of the experience of party pluralism. The outbreak of January 1977 incidents and Sadat's visit to occupied Al-Quds (Jerusalem) led to escalating confrontations with the opposition.

The ruling power resorted to several measures to restrict channels of political participation by the followings:

- 1- Enactment of a host of laws to restrict the opposition including the laws of fault and protection of the internal front and social peace.
- 2- Restriction of the opposition political activities.
- 3- Cracking down opponents and allowing the prosecutor general to interrogate intellectuals on their affiliations under what was known as the "political accountability".

#### **Mubarak's era (1981 - )**

President Hosni Mubarak took office on October 15, 1981 amid extremely difficult political circumstances. Mubarak's prime goal was to restore stability to the country following the mounting tension during the last days of Sadat's era. Mubarak has taken a range of measures to ease tension including the release of political detainees, allowing the re-publishing of some newspapers and easing restrictions on the party activities. During Mubarak's era, the number of political parties in Egypt has increased to reach 21 parties.

## **EGYPTIAN POWER AND RAILWAYS**

Egypt is largely desert and draws its development mainly from the use of river Nile, It is therefore natural for a large percentage of its population, and railway networks to be along the bank of river Nile.

Most of the electrical projects are also situated along the river Nile except for the nuclear and geothermal plants.

## **EGYPT POWER SUB-SECTOR.**

### **Egypt Ministry of Energy and Electricity.**

The spectral division of the ministry of energy is such that the heat of power generation is the ministry owned Egyptian Electricity generating holding, this together with set authorities are responsible for the supply of electricity. These authorities are; -

- Rural electrification authority
- New and renewable Energy authority
- Hydropower plants executive authority
- Nuclear power plant authority
- Atomic energy authority
- Nuclear materials authority.

The Egyptian electricity holding company is divided into two companies that are also further subdivided into various companies, these two companies and there sectarian companies are-

- A) Electrical generation companies:-these are companies that function to produce power. The companies are base in different regions as.
- Cairo
  - East delta
  - West delta
  - Upper Egypt
  - Hydro power plant
- B) Distribution companies:- function to distribute the power generated to the whole nation this are:-
- North Cairo
  - South Cairo
  - Alexandria
  - El beheira
  - North delta

- South delta
- Canal
- Mid Egypt
- Upper Egypt

All these companies were set up following the establishment of a regulatory body through a presidential decree of the year 2000. Through the decree, the regulatory body was set up to: -

- Regulate monitor and control the relationship among the generators, distributors, sellers, investors, and customers;
- To define the responsibility and authorities; and
- gave the regulatory body the full authority to implement decision taken and generate these decisions for the economic growth and development in which case the authority would be self-funding.

#### **Strategic Goals of the Electricity Sub - Sector in Egypt.**

- To maximize the utilization of all resources for industrial growth;
- To promote utilization of renewable energy;
- To promote electric interconnection in the country;
- To improve efficiency of energy production and use by adopting energy efficiency policy, and
- To promote environmental protection by adopting suitable measures in electric generations.

#### **Evolution of electricity in Egypt for the period 1981-2006.**

The development of electricity generation and supply for this period has seen an increase of peak load from 3, 240 MW in 1981 to 17,500 MW in the year 2006. The evolution of installed capacity has seen arise from 4, 900 MW to 21, 300 MW in the same period. Due to maximizing of electricity efficiently in the grid, the rate of consumption has increased by 36% with an accumulative savings of close 800 million tones of fuel oil equivalent. This has also seen the rate of electrical energy loss by 33% giving an improvement of the same margin with an accumulative saving of 13 million tones fuel oil equivalent.

The availability of power plant has risen to close to 89%, which the transmission networks of 96% that is similar if not above international rating of any country. ***The national electrical grid has risen such that 99% of the Egyptian population has access to electricity.***

### **Future Expansion of Electricity**

Egypt has put in place a power project plan for the succeeding years to 2022. Such that for any plan of electricity, renewable energy plays a vital role and hence the planned investment on it. Currently the country has a wind energy installed capacity by the year 2004 of 145 MW while 205 MW are in the implementation phase. The first phase of solar thermal plant is expected to be completed by the year 2008/2009 period and will add 150 MW to the national grid. The target for the renewable energy will be 13% of the total electrical demand by the year 2010.

Electrical consumption by the different sectors during 2005

- ✓ Residential 36.8%
- ✓ Industrial 35.6%
- ✓ Governmental and utility 17.2%
- ✓ Commercial 6.3%
- ✓ Agricultural sector 4.1%

There are also plans for electrical interconnection to Libya, Algeria Tunisia and morocco to the Euro - Asia grid with Spain, Turkey, Syria and Jordan of 500 KV.

There are also plans for the Nile basin interconnection consisting of countries south of Egypt, which includes Ethiopia, Uganda and Kenya with an interconnection of 500 KV.

### **LOCAL MANUFACTURING**

The Ministry of Electrical and Energy (MOEE) established a localization program for design installation and manufacture of components of electrical equipments with a target to raise the percentage of local participation. The result of this program where as follows: -

- 100 % of transmission network up to 66 KV distribution network components;
- The distribution of network components;
- 80 % in the transmission network up to 220 KV; and
- 42 % of power plants components.

The local manufacturing products from Egypt are

- Boilers and Switching equipments
- Transformers and Towers
- Insulators
- Metallic structure meters and Metallic structure
- Cables
- Batteries

As part of future endeavour, the electrical sector has a training program that is the Egyptian electrical holding company (EEHC), sector has 19 training centres providing training programs to the engineers, technical accountants administration etc in the following field: -

- ✓ Operation and maintenance of power plants thermal and hydropower plants;
- ✓ Operation and maintenance of electrical networks;
- ✓ Maintenance of lines;
- ✓ GIS information system for power system;
- ✓ Operation and maintenance of distribution network;
- ✓ Effective managements of network /power plants;
- ✓ Safety;
- ✓ Program design and development;
- ✓ Instructional techniques and training of trainees; and
- ✓ Financial and administration training programs.

## **NATIONAL TELECOMMUNICATION REGULATORY AUTHORITY**

### **Telecommunications and GDP**

The Telecom sector in Egypt represents 3.5% of the GDP in 2003 increasing to 3.9% of the GDP in 2004. The increasing contribution of the Telecom Sector to the GDP is largely due to the increasing revenues of fixed operator, Telecom Egypt and the three mobile service providers.

## **Telecom Market Liberalization**

Starting from 1991, the Egyptian government instituted economic Reform Program that has successfully transformed Egypt into a prosperous emerging market. The Reform Program aimed at more deregulation in various economic sectors spearheaded by the Telecom Sector. The implementation of the program brought a set of economic policies towards more growth and employment and less centralization and less public sector domination on the economy. Today Egypt has become the most stable emerging markets.

The first steps towards liberalization of the telecommunication sub sector begun when the Egyptian government transferred the legal entity of Telecom Egypt to an incumbent operator, state-owned joint stock company and establish an independent regulatory authority.

The regulator by 1998 issued two mobile licenses to pave way for more liberalization and enhanced market forces.

The Ministry of Telecommunication and information Technology (MCIT) developed and implemented a complete strategy for ICT sector with strategic objectives to establish information based society and turn Egypt into an ICT hub. MCIT sought to comply with international standards, enhance development, promote liberalization and grasp investment opportunities. Liberalization process became a general strategy of liberalizing Egypt's economy to sustain a significant position within a global market economy streamlined through the framework of WTO regulations and worldwide best market practises.

As an early signatory of GATS, Egypt accede to Basic Telecommunication Agreements (BTA), thus committed itself to dismantling all governmental monopoly on the provisions of telecommunications services. Its international commitment was further reaffirmed through the promulgation of the Telecom Act of 2003 which empowered the independent National Telecom Regulatory Authority and set definite timelines for liberalizing basic telecommunication services. This also outlined the pledges to safeguard publicity of information and protection of free

competition, provision of universal service and protection of consumer rights.

#### **Benefits of Telecom Market liberalization**

- Improve access to information and communication infrastructure and technologies;
- Promote international and regional co-operation through the encouragement of foreign direct investment;
- Encourage the design and production of affordable and easily accessible ICT equipment and services;
- Support research and development of new technology based services for the benefit of all stakeholders;
- Promote the benefits of international trade and the use of e-business models in developing countries and countries with economies in transition; and
- Encourage the development of local content and software specific to the needs of local communities.

#### **Competition in Fixed Line Services**

In 2002, Egypt submitted to the World Trade Organization (WTO) its request to initiate its certification in accordance with the procedures for the certification of rectifications or improvements to schedules of specific commitments as adopted by the council for trade in services, this led to entering into force of a detailed schedule of Egypt commitment in basic telecommunications.

The schedule stipulates that Telecom Egypt will no longer enjoy exclusivity for the provision of Telecom services beyond 31/12/2005. Thus, Telecom Egypt monopoly on international gateway facilities end on the same date hence provision of fixed line services is open to new market entrants. Furthermore, a substantial percentage of Telecom Egypt is being privatized upto 49% either by an IPO or selling large shares to strategic partners.

#### **Competition in Mobile Services**

A subsidiary of Telecom Egypt was the first operator to launch mobile services in 1996, which was later privatized and later a second mobile company was introduced. The NTRA foresaw a duopoly market which cannot exist without adverse effects on

consumer satisfaction and price deregulation. Hence, undertook to introduce a third mobile operator within the market, based on feasibility prove, enjoys high potentials for growth.

### **New Areas of Competition**

National Telecommunication Regulatory Authority developed rules and regulations for the licensing of Voice over Internet Protocol (VoiP) services, which resulted from discussion and consultation over policies, regulations and technical issues regarding the introduction of VoiP into Egypt. Secondly, with the liberalization of international gateways, many companies have been attracted to the prospects of investing in international VOIP services within the Egyptian Market.

Convergence between media and telecom is under study by NTRA, thus in the process of developing policies that will enable cable TV companies to offer converged services ranging from video on demand, all the way to broadband access and perhaps voice telephony at a later stage.

Thirdly, VSAT has been introduced in Egypt in 2001 and nine licenses have been issued to offer VSAT services. Four, payphone services were opened for competition and currently there three service providers including telecom Egypt.

### **Telecommunication Infrastructure development**

Telecommunication Infrastructure has been given top priority with the reform program where the government has reviewed its traditional involvement in investment directed towards infrastructure and utilities to include the private sector. New legislation contains provisions for the private sector to invest in infrastructure and telecommunications using schemes which provide for active participation of the domestic and international private sectors in infrastructure development.

## **THE EGYPTIAN RAILWAYS**

The Egyptian National Railways (E. N. R.) is considered one of the oldest railways networks in the world boasting to be the oldest in

Africa and the Middle East. The Egyptian railway line from EL Kabary to Cairo was opened for operation in January 1856. After its construction, the line from Cairo to Suez Canal was constructed. To date the E. N. R has an installed total track length of 9, 525 Km, this comprise of 5, 085 km. of routes.

The railways line is very busy such that it handles close 1.4 million passengers and 12 million tons per year of cargo. The infrastructure of ENR rail network and the amount of distance it covers is as follows: -

- ✓ Quadruple lines 20 km
- ✓ Double lines 1, 448 km
- ✓ Single lines 3, 617 km

The total route that is covered by the rail are 5, 085 km comprising of total rail network of 9, 525 km. the capacity of single line is 60 train a day while that of double line of 120 trains a day. These rail lines are distributed according to location: -

- Nile valley and delta lines cover 57.5% that is 2, 920 km
- Desert line is 42.5% that is 2, 165 km

The rail lines are distributed according to signalling system and those without that are mechanical these cover different distance as,

- Rail lines with electrical signalling has 585 km
- Rail lines with mechanical signalling 4, 500 km

The railway lines are distributed all over 776 different stations, which include main stations (34); medium stations (143) small stations (414), and halt stations (155) with 1,261 crossings.

#### **Passengers' transportation and train traction fleet.**

The operations of the railway lines are such that the passenger trains operate with a speed of between 100km/h to 140 km/h. these trains are of different make and age such as trains with modern sleeping coaches (A/C), turbo trains with class coaches, and trains with only (A/C. I & II) class coaches. Trains with mixed (A/C. I & II) & II class new coaches, trains with upgraded coaches, local

trains with speed of 70 km/h and finally trains speed of between 50 to 70km/h.

The number of trains daily will be

A.C Trains	Mixed trains	Express trains	Slow trains	Local trains	TOTAL
62	69	132	700	182	1145
5.4%	6%	11.5%	61.1%	16%	100%

These trains cover an average distance of 123 km a day  
The daily passenger densities on the main lines out of the 1000 are

RAIL LINE	Passengers	%
CAIRO- ALEX	198	14
CAIRO-HIGH DAM	254	18
CAIRO- DAMIETTA	62	5
OTHER LINES	730	52
CAIRO- PORT SAID	156	11
<b>TOTAL</b>	<b>1.4</b>	<b>100</b>

The traction fleet for the trains according to the make is

- Canadian Loco's (GM) 1650HP are 254
- American Locos (G.E) 1850HP are 30
- German Loco's (GM) 2475HP are 342
- Canadian Loco's (G.M) 2475 are 45
- Shutting locomotive from Spanish 1200HP are 30

The coaches are also varied with 647 air conditioned (I & II) Class coaches, 566 new (II) class coaches, 601 upgrading coaches, 569 upgrading coaches for the suburban, 22 air conditioning club

coaches, 101 air conditioned sleeping cars, 700 (II & III) normal coaches and 128 power coaches these add up to 3206 passenger coaches and three turbo train unit, every unit with 10 coaches.

The freight wagons fleets are 10, 592 with different types and loads, their speed are between 50 to 70 km/h. The number of Loco's for freight fleet is 196 with a power charge of 2475HP. The total tonnage transported by the rail amount to a volume of 12 million tones per year.

The E. N. R has endeavoured to provide its customers with valued service. That is why the E.N.R has decided to put it upon itself to invest in computerized system for reservation of seats and the booking of seats in the air-conditioned trains there are 16 retail outlets in operation now and nine are now under construction. The system will be expanded to include the 32 main stations covering the whole country. The computerized system in use at the main stations can issue more than 2.4 million tickets a month.

As part of the corporation strategy to give value, the safety of the passengers is at the foremost on the companies priority that is why the company made a contract with L. E 17 million per year from the first of April 2002. E. N. R has bought 14,000 hand-fire extinguishers with different types from the 2002 till now to provide safety to the coaches, buildings and workshops with a cost arriving to L.E 6 million. As part of the safety portfolio, the company has also invested in wire less radio to make communication between the train driver and the chief leader of the train.

The E. N. R has vocational training institute at Warden; the Warden institute was established in cooperation with the United Nation Development Program (UNDP) in 1968. The institute is equipped with classrooms in addition to halls and laboratories (chemical/material testing/instrumentation) together with the signaling and electrical simulators and full spectrum panoramic view of railway training in operation work. The institute currently absorbs presently 1,000 trainees representing all the fields of railway operation. Apart from these, there is also a vocational training centre for the drivers at EL-furze in Cairo. Their main

objective is to Train locos drivers, assists them under normal and emergency condition of operation. The centre is equipped with two loco's cabin simulation identical to Ends locos. Since the centre was inaugurated in April 1994.

## **OVERVIEW OF THE UNITED ARAB EMIRATES**

### **BACKGROUND**

The United Arab Emirates (the UAE) is a federation of seven tiny independent states - Abu Dhabi, Ajman, Dubai, al-Fujaira, Ras al-Khaymah, al-Shariqah (Sharjah), and Umm al-Quwayn.

The UAE is a Muslim country which lies at the south-eastern corner of the Arabian Peninsula bordering the Arabian Gulf, between Oman and Saudi Arabia. It has a land size of 82,880 sq km. Once known as the Trucial States in the 19th century, the UAE is now considered a Middle East hub for business, media and a major tourist destination.

In particular, Dubai and Abu Dhabi, the two most prosperous states, are a model for rapid economic development and hugely popular with foreign investors from around the world because of their expanding leisure facilities and relaxed laws. The city of Abu Dhabi, located in the emirate of the same name, is the federal capital and the largest city in the country.

### **Historical background**

The UAE was formed from a group of tribally organised sheikhdoms along the southern coast of the Gulf. The area was dominated by sheikhdoms who were embroiled in dynastic disputes for many centuries. The disputes were mainly over the domination of the harbours that used to generate huge profits. Throughout its history, the area now known as the UAE was abuzz with transit ports where ships coming from the Indian subcontinent re-supplied before continuing their way to the crucial port of Basra in Iraq. Commercial ships also used to unload their commodities in order to transport them inland to areas in Arabia.

As a centre of commercial sea traffic, attacks and counter-attacks

by sea became commonplace and the area became known as the Pirate Coast as raiders based there harassed foreign shipping.

From the 17th to the 19th century, British and other European naval ships patrolled the coast to protect merchant ships. With better and more sophisticated weaponry, the Trucial States conceded control over their defence and foreign affairs to the British, who were already in control of neighbouring Oman and Qatar. Before the discovery of oil in the 1950s, the UAE was largely undeveloped. Oil brought rapid growth and modernisation, and the country gained independence in 1971.

However, independence did not spare the UAE from regional disputes. Aside from internal rivalries, there were border disputes with Saudi Arabia and Oman. Iran seized the islands of Abu Musa, Tunb al-Kubra (Greater Tunb), and Tunb al-Sughra (Lesser Tunb) in the Gulf, all of which had been claimed by the UAE.

### **Rapid modernisation**

Regional threats of war and revolution did not harm the country's quest for development under the leadership of Sheikh Zayid bin Sultan Al Nahyan, who used oil revenues to establish and strengthen the business and tourism sectors as well as promote the UAE's regional security. Rapid modernisation, enormous strides in education, and the influx of a large foreign population have changed the face of society but have not altered its traditional political system. There are no political parties. There has been some slow movement toward democratisation, however, with limited elections for a new assembly, but the rulers hold power on the basis of their dynastic position and their legitimacy in a system of tribal consensus.

Lately, Sheikh Lubna al-Qasimi was appointed as Minister for education to be the first female minister in the UAE. With Dubai the leading destination in the Gulf for shopping and business, the UAE's per capita GDP is comparable to leading west European nations. Its generosity with oil revenues, both in spending within the country and pan-Arab contributions, has allowed the UAE and its president to play a vital role in the affairs of the region.

### **A cultural economy**

Since 1973, the UAE has undergone a profound transformation from an impoverished region of small desert principalities to a modern state with a high standard of living. At present, with current levels of production, oil and gas reserves should last for more than 100 years. The government has increased spending on job creation and infrastructure and is opening up its utilities to greater private sector involvement. The culture and society are a blend of traditional and modern elements. Islam and the heritage of a traditional, tribal society form the basis of a stable and essentially conservative social structure. There is, however, a decidedly tolerant and cosmopolitan atmosphere - most notable in the emirate of Dubai - that gives non-UAE nationals the opportunity to practice their own cultural and religious ways of life.

## **DUBAI PORT AUTHORITY**

### **History and Future**

For centuries, Dubai has been known as 'the city of merchants'. During the fifties and sixties it became an increasingly busy trading post for the entire Gulf region.

Mina (Port) Rashid was completed in 1972. The port's location near to the city center, its all-new infrastructure and Dubai's thriving business community made it an instant success. By 1978 the number of berths was increased to 35 - including five berths large and deep enough to handle the largest container vessels.

In 1976, the late ruler of Dubai, Sheikh Rashid, gave instructions for an even more ambitious project: the construction of the world's largest man-made harbor at Jebel Ali. When completed in 1979, Jebel Ali Port ranked alongside the Great Wall of China and the Hoover Dam as the only three man-made objects that could be seen from space.

Jebel Ali Port and Free Zone merged with Port Rashid in May 1991 to form Dubai Ports Authority which led to a dramatic increase in throughput to cross one million TEU's.

Formally established in September 2005, DP World has emerged from the corporate integration between Dubai Ports Authority and DPI Terminals, to become one of the largest global port operators to date.

Initially encompassing 70,000 square metres of warehousing and 850,000 square metres of covered areas, JAFZA took nearly three years to create, transforming 25 acres of desert into a secure, dynamic working environment. In May 1980, H.H. Sheikh Rashid bin Saeed Al Maktoum signed a decree establishing JAFZA, adding to the Port a major trade and industrial area, eventually extending to 750 acres.

Through the years JAFZA has benefited from major investments in its infrastructure. The very latest information technology has allowed it to consolidate the unsurpassed logistics capabilities whether by sea, land or air.

Currently, it's preparing itself for a most promising future by focusing on the refinement and upgrading of every aspect of its services, and to continue the commitment of making JAFZA a dynamic, thriving place to do business

### **PCFC - Ports, Customs & Free Zone Corporation**

The merger of Dubai Ports Authority, Customs Department and Jafza into the Ports, Customs & Free Zone Corporation (PCFC) plays a strategic role in the ability to surpass expectations. Utilizing combined resources created efficiencies and fosters an ideal opportunity for the exchange of information. Our customers benefit from the shared expertise in technology and management, creating new, innovative services.

### **Dubai Trade Portal**

An innovative portal that combines all electronic services provided by Dubai Ports, Customs and Free zone Corporation.

DubaiTrade.ae consolidates all the services of myDPA, eMirsal, e-ATA, myJAFZA & DMCC sites within a single Bi-Lingual (Arabic-

English) experience portal. One that is services driven for all PCFC customers. Developed locally, this e-hub is certain to become an indispensable tool for the trade and transportation industry.

## **DP World**

DP World provides JAFZA clients with container handling, cool and cold stores, and storage areas. Companies can benefit from innovative services such as the Container Terminal Management System (CTMS), covering a wide range of business requirements and facilitating an integrated inter-port transfer of containers between Port Rashid and Jebel Ali; or the Container Freight Station System (CFSS), which computerizes the entire operations of the station.

## **Current situation**

DP world is currently the third largest operator of container terminals in the world with 51 terminals all-over the world and handling about 37 million TEU. DP world is 100% owned by the government of Dubai, where it operates the free zone, airports and seaports and the custom services. The government invested only for 20 years but due to the provision of infrastructure it did stop.

Container clearance takes 45 minutes while dual time is 8 days due to the facilities and services available at the Port compared to Mombasa where containers take about 4 days.

## **DP WORLD Interest in Mombasa**

Following a study visit by Kenya's Minister for Transport and the Managing Director of Kenya port authority to Dubai Port Authority in September 2005, and also due to the potential of the port of Mombasa and its position, Dubai Port authorities have made several attempts to initiate ways and means of starting a collaborative development of the Kenya Ports. This has been express by their submission of proposal to the Kenya authorities through its embassy in Abu Dhabi, United Arab Emirates.

In the their persistent endeavors, DP authority proposed the creation of joint team to conduct a feasibility study on Kenya Ports

and development of a joint proposal to be submitted to the two governments for approval. The DP world requested an exclusivity/confidentiality agreement during the initial period of discussion considering the nature of business.

Among the issues that required to be discussed were:-

- i.) The feasibility study should be carried out jointly and result discussed exclusively;
- ii.) The government of Kenya should provide sufficient land for future expansion of the port, the development of free zone requirement about 1300 - 1400 acres or about 40 ha;
- iii.) Certain requirements are to be met by governments of Kenya in order to attract foreign direct investment i.e. uncompetitive laws, services provision and good governance;
- iv.) The two government should initiate bilateral talks on the need to develop the port of Mombasa;
- v.) The government of Kenya should minimize bureaucratic processes in its operations;

## **Services at the port;**

### **Container Cargo**

Container handling equipment gives DP World - UAE the flexibility to respond quickly to customers' requests even during peak seasons. In order to meet the increasing demands and sustain the level of customer service, DP World has taken delivery of 14 mega gantry cranes, installed at the Jebel Ali container terminal in 2005 and an additional 6 in 2006, bringing the total to 45. The gantries manufactured by ZPMC in China are the largest of their kind in the world and the first of their type to be installed in the Middle East. They are able to lift two 40 foot or four 20 foot containers simultaneously.

### **General Cargo**

General cargo is an important business for DP World - UAE. The port is attracting more general cargo vessels carrying a wider

variety of cargo by offering superior service and handling facilities.

DP World - UAE continues to develop and expand its facilities and special equipment for handling non-containerized cargo as well. Shippers and UAE-based manufacturers continued to take advantage of competitive rates, frequent sailings and the port's attractions as an international distribution center.

Timber, steel, minerals, bagged rice, sugar, wheat bran and project cargo, along with specialized cargoes such as frozen and chilled foodstuffs and various construction materials are the principal commodities handled. As well as serving the growing local markets for these commodities, the port's location at the hub of East-West and North-South trade routes makes it attractive for stockpiling cargo for re-export.

The London Metal Exchange (LME) has approved Jebel Ali Port as a good delivery point for four non-ferrous metals. The metals include copper grade A, standard lead, primary nickel and special high-grade zinc.

### **Bulk Cargo**

There is a dedicated berth for handling bulk cargo. Foodstuff, minerals, chemicals and petroleum are the principal cargoes handled.

### **Ro/Ro Facility**

Berthing facilities for Ro/Ro vessels and pure car carriers at both Jebel Ali and Port Rashid terminals are complemented by the large space available for short and long-term storage of cars, buses and construction vehicles imported for both local and re-export markets. Livestock vessels are berthed at the same areas and handled on a direct delivery basis.

### **Reefer Facility**

The facilities offer round the clock monitoring, maintenance and repair of reefer containers. Vessels in port are offered on board reefer repair services and spare parts supply, ensuring no delays during transit.

### **Commercial Trucking**

The Commercial Trucking Department provides a cost-effective service for container and general cargo deliveries between Port Rashid and Jebel Ali terminals and anywhere in the UAE. With offices in both terminals, the 24 hour-a-day, 365 day-a-year operation has a modern fleet of 30 Mercedes trucks, 146 trailers and a variety of other equipment to satisfy customers' transport requirements.

### **Ferry Terminal**

Ferry service has become a popular mode of passenger movement across the Gulf, mainly connected with Bahrain, Qatar, Iran, and Iraq - Umm Qasr. Total area of the Ferry Terminal is 155 square metres.

### **Cruise Terminal**

Modern architecture, ample facility equipped to indulge our cruise passengers. Total area of the Cruise Terminal is 3,300 square metres.

### **Tanker Facility**

Jebel Ali terminal operates 2 multi-user tanker berths and 2 used only by ENOC. Privately operated storage tanks are available for rent by companies who wish to hold stocks of oil for delivery elsewhere in the world.

Within Port Rashid terminal, a jetty operated by Shell can handle tankers of up to 40,000 tones, as well as bunker barges. The latest safety equipment including plastic-faced fenders, remote-control fire monitors and high-tech telescopic access

ladders protects it. Bunkering is available at both terminals at competitive rates.

### **Container Repairs**

Each terminal has a well-equipped container repair yard where maintenance is carried out to international standards and approved by Bureau Veritas and the American Bureau of Shipping. Both yards can take all types of containers in their paint and blast shop facilities for hot and cold works. Steam cleaning and chemical washing are also available. Combined, the Jebel Ali and Port Rashid yards have a storage capacity for more than 2,000 units and all container owners and operators have access to the facilities.

### **Sea-Air Cargo**

Dubai's modern expressway system linking Jebel Ali terminal and Dubai International Airport's Cargo Village is so advanced, making the sea-air option even more attractive to shippers with perishable or time-sensitive cargo. Transit from ship to aircraft can be achieved in as little as four hours from the vessel's docking.

### **Logistics**

To support our CFS, Cool & Cold Stores activities the port is offering a full range of Supply Chain and Logistics services including Customs Clearance, Import & Export Freight Management and Stock Control, complemented by state-of-the-art trucking fleet.

### **Health & Safety Group**

Safety is of paramount importance. Oil tankers enter the port in accordance with international tanker safety rules and interested owners or their representatives are required to discuss these with the port (Harbor Master) prior to the ship's entry. Adding to this, there is a dedicated Health & Safety Group, which

controls and monitors Safety measures within the port area especially waste disposal, hazardous cargo and emissions. To secure the port area, there are 8 gates in Jebel Ali Port and 2 in Port Rashid equipped to facilitate cargo and visitors in / out movement. There are also fire brigades available within the port area.

### Long Term Vessel Lay-by

Owners using the port for vessels undergoing repairs or awaiting cargo can qualify for considerable premium rebates on their hull and machinery insurance policies.

### STATISTICS

#### Container Cargo

Jan	166949	115733	319595	602277	4671940
Feb	158131	115368	291574	565073	4314039
Mar	156122	123111	304976	584209	4512407
Apr	183248	118988	326406	628642	4670159
May	184019	128310	319661	631990	4924376
June	175268	124566	319084	618918	4718015
July	179541	134639	361108	675288	5349363
Aug	182910	135558	357506	675974	5413930
Sep	172538	127238	346131	645907	5260720
Oct	183118	130210	350291	663619	5126460
Nov	183779	130229	339674	653682	5016539
Dec	195061	137704	340877	673643	5119166
<b>Total</b>	<b>2120684</b>	<b>1521654</b>	<b>3976883</b>	<b>7619222</b>	<b>59097114</b>

#### General Cargo

**General Cargo in Metric Tons Year 2005**

Month	Bulk Cargo	General Cargo	Cold Storage	Total
Jan	306728	496735	136	803599
Feb	376171	526006	288	902465
Mar	525928	618800	493	1145221
Apr	342432	592170	363	934965
May	866231	596539	188	1462958
June	439820	742503	341	1182664
July	564195	771968	559	1336722
Aug	824776	695128	522	1520426
Sep	632972	733579	492	1367043
Oct	553130	660250	366	1213746
Nov	533253	482802	57	1016112
Dec	708128	664927	203	1373259
<b>Total</b>	<b>6673764</b>	<b>7581407</b>	<b>4010</b>	<b>14259180</b>

**Petroleum**

<b>Petroleum Tonnage in Metric Tons Year 2005</b>				
Month	Oil	Gas	Other Products	Total
Jan	1250796	28390	8584	1287770

Feb	1326806	11606	5710	1344122
Mar	1609575	42329	8442	1660346
Apr	1451710	55374	3022	1510106
May	1260255	40701	12813	1313769
June	1462109	30226	11990	1504325
July	1601489	58548	8814	1668851
Aug	2010235	54087	8332	2072654
Sep	1766500	36624	7063	1810187
Oct	1484995	49088	14142	1548225
Nov	1487111	35354	9710	1532174
Dec	1843296	48179	12800	1904274
<b>Total</b>	<b>18554876</b>	<b>490505</b>	<b>111421</b>	<b>19156802</b>

## Vessels

Vessel Calls Year 2005							
Month	Container Vessels	RO-RO Vessels	GEN. Cargo Vessels	Tankers	Supply Vessels	Others	Total
Jan	550	46	107	71	155	292	1221
Feb	503	48	86	64	132	262	1095
Mar	545	55	111	86	168	315	1280
Apr	561	63	107	76	192	300	1299
May	596	56	143	79	208	338	1420

June	562	53	120	78	208	315	1336
July	590	66	115	92	203	306	1372
Aug	613	58	117	90	193	330	1401
Sep	588	61	111	91	218	274	1343
Oct	584	52	137	77	246	274	1370
Nov	622	60	86	89	261	250	1368
Dec	629	57	136	91	309	283	1505
<b>Total</b>	<b>6943</b>	<b>675</b>	<b>1376</b>	<b>984</b>	<b>2493</b>	<b>3539</b>	<b>16010</b>

## RECOMMENDATIONS

The Committee recommends that the: -

- i.) government should provide budgetary allocation to the Kenya Ports Authority to be able to acquire the land for expansion and development of a free Zone, more terminals and access road in order to implement the recommendations of the report on tour of Dubai Port made by the Minister for Transport and Managing director, Kenya Ports Authority on September 20005;
- ii.) minister responsible for transport expedite the amendments to the KPA Act which will allow the concessioning of management of Kenya Ports Authority to facilitate its liberalization to enter into full commercial activities and the development into a free port area;
- iii.) government should initiate a collaborative development plan for the Port of Mombasa with strategic partners such as Dubai Port Authority of the United Arab Emirates, willing and ready to invest on due to its potential and strategic location on the Coast of East and Central Africa;

- iv.) government should harmonize investment laws to attract private investors wishing to invest in the port of Mombasa;
- v.) government should set up separate and independent authorities in energy sub sector that will efficiently oversee the development and expansion of the different sources of energy - hydro, geothermal rural electrification and new & renewable sources of energy; the independent authorities include the rural electrification authority, geothermal authority, Hydropower development authority and new and renewables energy authority;
- vi.) government should speed up splitting up of Kenya Power & Lighting Company limited to increase its effectiveness and efficiency in the delivery of services into transmission and distributions entities;
- vii.) government should enhance investment on renewable energy sources such as small hydros, wind and solar for supply of electricity in rural areas and to small scale consumers;
- viii.) government should develop a strategic plan on energy covering upto 20 years;
- ix.) government should upgrade its grid to international standards in order to make it easier to harness power from neighbouring countries on the international interconnection;
- x.) government should move faster to be part and parcel of the Nile basin interconnection which proposes to connect countries in the Nile Basin;
- xi.) government should promote local manufacturing of electrical components by establishing a localization and manufacture of components of electrical equipment which will reduce coats of importation and creates employment;

- xii.) government should speed up the liberalization of the telecommunications sub sector to enhance efficiency and effectiveness;
- xiii.) government should expedite the proposed restructuring of Telkom Kenya to harness the advance in technology in the telecommunications sub sector;
- xiv.) the minister responsible for Information and Communications should expedite issuance of the license to the third Mobile service provider since duopoly in the market has adverse effect on consumer satisfaction and price deregulation;
- xv.) government expedite the optic cable in order to bring down the cost of telephony and also attract foreign Direct investment;
- xvi.) government should license investment on the convergence between media and telecommunications and payphone services; and
- xvii.) government allow the private sector to invest in telecommunication infrastructure development within the telecommunication sub sector.