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**ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)**

**NATIONAL PROFILE OF THE INFORMATION SOCIETY  
IN KUWAIT**

United Nations  
New York, 2009

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## **I. THE ROLE OF THE GOVERNMENT AND ALL STAKEHOLDERS**

### **A. NATIONAL INFORMATION SOCIETY POLICIES AND E-STRATEGIES**

#### *1. Discussion of the development of national e-strategies and policies*

Within the five-year development plan of the State (2009/2010-2013/2014) a sectoral development plan was laid down in the field of IT as a national electronic strategy. The strategy seeks to develop the Kuwaiti individual through the use of ICT based products, networks, services and applications. Caution was taken when developing the strategy to make it realistic and applicable through carefully chosen policies so that a balance can be achieved between national aspirations and available resources.

#### *2. Sectoral plans for building the information society*

According to the five-year development plan in Kuwait (2009/2010-2013/2014), a sectoral development plan was prepared. It included plans to build the information society in the State's principal sectors such as the public sector, education, health, trade and industry. The plan included 30 projects and initiatives which were proposed, linked and viewed in light of the information society lines of action that were outlined in the declaration of principles of the World Summit on the Information Society.

#### *3. Progress towards fulfillment of national policies and strategies*

The current year (2009/2010) is considered the first year of implementation in the sectoral development plan for IT. There are four projects and initiatives on which work has started:

- The Project of the formal electronic Portal of the State of Kuwait was launched on 19/10/2008 and its first phase has been completed. Planning for the second phase has begun and implementation will begin during the year 2009;
- The first phase of the Kuwait information network project for linking government institutions was completed. It included building the backbone of the network and linking 15 governmental bodies to it. Work has begun on the second phase of the network where more government institutions will be interconnected;
- The first phase of the training program to rehabilitate and develop the capacity of people working in the field of IT in the public sector was completed. Preparations are underway for the second phase which is expected to begin in the fourth quarter of 2009;
- The National Program for awareness in the IT field, which is based on (ICDL) training. So far 556 persons have been trained;
- The technical, administrative and contractual framework of the e-Payment portal project was laid down. Work has started whereby the Ministry of Finance and the Ministry of Justice are collecting payment for some of their electronic services through this portal.

### **B. PUBLIC/PRIVATE PARTNERSHIP (PPP) OR MULTI-SECTOR PARTNERSHIP (MSP)**

#### *1. Existence of structured dialogue involving all relevant stakeholders*

Kuwait acknowledged the active role of the private sector in the development by encouraging the use of electronic media in providing sectoral services and by allowing the sector to participate in IT and e-government plans.

## *2. Mechanisms for the initiation and promotion of partnerships among stakeholders of the Information Society at the national level*

The IT sectoral plan laid down more than one mechanism to involve the private sector in its work:

- Giving the private sector a greater role in order to participate meaningfully in development and investment in the field of IT;
- To adopt "the outsourcing service" as an effective means to help the IT public sector in its future planning;
- To use the Kuwaiti product wherever possible and to comply by the international treaties regarding rights of intellectual property for products and services;
- Transparency in performance and maximizing productivity.

### *3. The existence of Public/Private Partnership (PPP) or Multi-Sector Partnership (MSP)*

One example on the partnerships between the public and the private sector is the establishment of the e-payment portal for e-government services. Whereby an agreement was made with the (Knet) company. It is a company which includes the membership of all Kuwaiti banks and the companies that facilitate ATM connection and processes of collection within a single network. Currently the Ministry of Finance and the Ministry of Justice are performing their electronic collection process through this portal. The Ministry of Justice stated that the total amount collected through this portal in February 2009 was more than two million Kuwaiti dinars.

#### C. ROLE OF NON GOVERNMENTAL ORGANIZATION

The NGOs involve a number of civil establishments that represent the civil society in Kuwait. The number of NGOs in Kuwait is 279.

To spread the IT culture the Kuwait Economic society established 7 community computer centers in partnership with Microsoft and a number of cooperative societies. The Kuwait Foundation for the Advancement of Sciences also engaged in a partnership with the Ministry of Education in order to establish computer labs in every elementary or secondary school.

Added to that, the Kuwait Chamber of Commerce and Industry is cooperating with the public sector in an attempt to create centers for comprehensive government services.

The Central Agency for Information Technology laid down a paper entitled "The role of civil society institutions in achieving digital integration in the framework of implementing the e-Government project". It aims at building a partnership with civil society institutions. This paper was discussed with these institutions, who expressed their support for it.

## **II. ICT INFRASTRUCTURE**

### A. INFRASTRUCTURE

#### *1. Fixed and mobile telephone networks and penetration*

Fixed and mobile telephone wired networks fully cover the State of Kuwait. The Ministry of Communications is still responsible for the management and operation of the fixed telephone network, the communication infrastructure and its backbone. In the State of Kuwait, until the beginning of 2009, there were 31 main exchanges with a capacity of 776 thousand lines, out of which only 518 thousands lines are in use; which means that the percentage of lines currently used when compared with the total capacity is 65 per cent.

The Ministry of Communications finished the implementation of the first phase of the fiber optic project which is specifically designed for the development and update of the land telephone network. The cost of this phase reached 45 million Kuwaiti dinars. It will provide high capacity per unit (80 Mb/s) so as to allow the use of the telephone service, the Internet connection and the interactive television transmission via the same link. As a basic telecommunication infrastructure the Ministry of Communications has moved towards linking the new zones with fiber-optic cables instead of copper wires.

There are three mobile operators in Kuwait, namely: Zain, Wataniya and VIVA. The third license was given to VIVA after open bidding, and the value of the license amounted to 298 million Kuwaiti dinars. The mobile telephone companies invested heavily in expanding their networks, which included the transition to the 3G technology and expansion of their infrastructure. These investments contributed to the increase of the quality and quantity of services provided, among which are: Internet connectivity, data transfer and reducing the cost of operating and using mobile telephones. This allowed them to provide promotional offers and increase their number of customers.

## *2. Internet Service Providers (ISPs) and Internet penetration*

There are currently four local ISP companies which are Qualitynet, Zajil, Fast Telco, and Gulfnet. All of which carried out major investments in their networks to accommodate the demand for Internet access and the provision of new capacities. The Internet market in Kuwait is moving towards high capacities, Broadband, Wi-Fi and digital subscriber lines (DSL) have become widespread. Two years ago, commercially available capacities for individual use did not exceed 1 Mb/s, but nowadays it has reached 4 Mb/s.

The field of ISP is not restricted to the provision of Internet as all ISPs work in the field of data transfer too. In addition, all ISPs provide and manage basic Internet services such as e-mail and web hosting. The ISPs' work has also evolved to include the field of web applications such as telephony over Internet Protocol (IP Telephony) and video communications (Video Conferencing). Currently, the number of Internet users in the State of Kuwait is about 900 thousand users which is approximately 34.7 per cent of the total population.

## *3. PC Dissemination*

In 2008, the size of the IT market in Kuwait was about 774 million dollars out of which approximately 333 million dollars were in computers and accessories sales, 209 million dollars were in software sales, and 232 million dollars was in the turnover of information services. In 2007, the rate of computer penetration per 100 inhabitants was 23.7 per cent.

## **B. INITIATIVES AND PROJECTS FOR ICT INFRASTRUCTURE AND DEVELOPMENT OF NEW SERVICES**

The State of Kuwait promoted competition in the ICT sector and today there are three mobile telephone companies, four ISPs, and other companies within the ICT sector. The State is also working on a draft law for the establishment of a commission that regulates ICT. As for the IT sector, a draft law on electronic transactions was laid down and is under study for approval. In addition to that, there is a move towards the development of a special law for cyber crime

## **C. ICT CONNECTIVITY**

The State of Kuwait has made important strides in achieving 'digital inclusion'. ICT competition has enhanced the capabilities of ICT companies and that of the ISPs. As a result, ISPs are able to provide services to all areas of operation on an equal basis.

Mobile telephone companies focused on providing mobile Internet services to their customers, having invested heavily in their infrastructure to provide these services, especially in (3G) technology for the entire State of Kuwait. As mobile telephone companies are not licensed to provide Internet services, they relied on

ISPs and entered into partnerships and agreements with them. It is interesting that these companies provide Internet services of capacities of 3.6 or 7.2 or 14.4MB which compete with ISPs and which now have a major market share.

At an educational institutions level, each school under the Ministry of Education has at least one computer lab and is connected to the Internet. As for the universities and polytechnics, they are all connected to the Internet and they provide this service for free for both students and faculty.

The health institutions are all linked with the existing network within the Ministry of Health. They use centralized systems, such as "the access system" or "the medicines dispensing system".

At a public sector level, the Central Agency for Information Technology started a project in 2008, for establishing and implementing a national network (Kuwait Information Network-KIN) for the transfer and exchange of information. It is a national project for building and developing the country's infrastructure through linking information networks of all government ministries and agencies to one single information network. The project is to be implemented in two phases, the first covers 15 governmental bodies, which began offering their services through the State of Kuwait portal (Kuwait Government Online - KGO). The second phase involves the rest of the government bodies.

#### D. INTERNET INFRASTRUCTURE

##### 1. *Internet Backbone*

The Ministry of Communications provides the infrastructure for the Internet network and is responsible for its management and operation. ISPs use this structure to build their own networks in order to connect their customers to the Internet.

##### 2. *Internet Infrastructure*

Connection to the Internet network is carried out through the Ministry of Communications and through several fiber optic cables which connect the State of Kuwait with neighboring countries and the world. Each main Internet provider is supplied with alternative lines that can be used in cases of emergency.

##### 3. *Wireless Internet Access Points (Wi-Fi) hotspots and WiMAX*

Wi-Fi wireless points are spread throughout public utilities. The number of public access points increased, indirectly leading to a decline in the number of Internet cafes. Wi-Fi has also become widely used at homes and it has become the access point that is most common and most widely spread in the State of Kuwait.

At present in Kuwait, there is no application or licensee from the Ministry of Communications to access the Internet through WiMAX.

##### 4. *National and regional Internet Exchange Centres*

The State of Kuwait is regionally linked to two exchange points: one in the United Arab Emirates and the second in Saudi Arabia. There is also a local exchange point called (KuwaitNic).

##### 5. *Regional root servers*

The State of Kuwait is linked to two regional servers: (QTEL) in Qatar and (Emix) in the UAE. They represent two local points for the main server (K Root) which is run by the Regional Internet Registry (RIPE NCC).



## 6. *Internet transit and interconnection costs*

The Ministry of Communications determines the costs of international interconnection and transit of ISPs. The following are examples of these costs:

- High capacity Internet service lines (E1) with a capacity of 1 Mb/s at a cost of 550 Kuwaiti dinars;
- International connectivity lines for information transfer (E1 IPLC) with a capacity of 1 Mb/s at a cost of 2,200 Kuwaiti dinars, and with a capacity of (DS3 45 M) at a cost of 23,500 Kuwaiti dinars;
- Linking firms Service with large capacity (STM-1) with a capacity of 155 Mb/s: full coverage at a cost of 46,510 Kuwaiti dinars.

## 7. *International Internet Bandwidth*

In 2007, the total capacity of international Internet bandwidth amounted to 2.3 Gb/s.

### **III. ACCESS TO INFORMATION AND KNOWLEDGE**

#### **A. PUBLIC DOMAIN INFORMATION**

##### *1. Development and promotion of public domain information*

Government bodies began providing and disseminating information relating to their services to individuals and institutions, on their Internet websites. Some government sites also allow citizens to follow-up transactions that they have put to the service centers. However, the private sector remains ahead of the government sector in the use of the Internet to promote its activities and to provide services electronically.

The spread of news sites (RSS Feeds) also began to increase significantly especially in sites with journalistic content, like the daily newspapers sites, the official portal of the State and some business sites.

The sectoral plan included the project "sub-portal for public participation," which aimed at disseminating and announcing policies through the e-government portal site. Allowing different groups of society to engage with and find out about different government policies in the various fields.

##### *2. Use of ICTs as a fundamental working tool by citizens and local authorities*

The number of Internet users in the State of Kuwait amounted to about 900 thousand users which is equivalent to 34.7 per cent of the total population. This means an increase of over 2 per cent in the number of users from what it was in 2006. All government agencies are currently connected to the Internet in order to fulfill their day-to-day work.

The use of local blogs, which largely replaced Forums, social networking has become a clear and concrete phenomenon, steadily increasing in numbers and use. It was possible to monitor 518 blogs on a variety of subjects specifically for the State of Kuwait. It was also observed that in the last parliamentary elections, blogging played a significant role in influencing the opinions of voters.

##### *3. Availability and development of digital public libraries and archive services*

The National Council for Culture, Arts and Literature acted on the development and automation of the National Library, as well as linking it to other public libraries in Kuwait.

Established in 2006, the Babtain Central Library is considered the first digital library specializing in Arabic poetry. It employs the latest technologies and enables access to information through an integrated automated system that provides automatic indexes that facilitate the search for sources of information. The library also relies on video-conferencing for the transfer of cultural activities directly to its visitors.

The e- Library of Waqf Information Center is specialized in information services and decision support processes for all parties interested in Waqf and its developmental role in Islam. The Library houses a collection of titles on various themes of Waqf. The Library's collection includes more than 5,000 titles.

## B. ACCESS TO INFORMATION AND PUBLIC INFORMATION

### 1. *Availability of adequate access to public official information*

The Central Agency for Information Technology (CAIT) manages the project: "the Official Portal of the State of Kuwait". This portal has the technical capabilities which represent the beginning of the transition in government services from the stage of "publish" to the stage of "interact", to be followed by the implementation of the "transact" stage. The site<sup>1</sup> was launched on October 19, 2009 and it included 51 government e-services, along with 247 informational resources about government services. Since the launching of the portal, the total number of users has reached about 253 thousand. The portal is available to all in both Arabic and English.

### 2. *Free and affordable access, to open journals, books, and scientific archives*

Most scientific journals published in the State of Kuwait are open or free to access. However, newspapers and magazines, offer completely free access to their websites, which include daily issues, previous issues, electronic copies of the paper issue, and search facilities for its website content service.

## C. MULTI-PURPOSE COMMUNITY PUBLIC ACCESS POINTS

### 1. *Affordable or free-of-charge access multi-purpose community public access points*

Public and private schools as well as higher education institutions, are considered public access points. There are many wireless access points in public places. The Kuwait Economic Society in cooperation with Microsoft established seven centres distributed on all six Kuwaiti governorates.

### 2. *Provision of help services and assistance to users*

Main libraries provide assistance to their users. Educational and academic institutions induct library users, whether they are public researchers or students, in order to introduce them to their services, resources and the way in which they work. Nevertheless, all provide automatic indexing and e-search service, links with international information banks and electronic information sources.

### 3. *Use of information and sharing of knowledge*

In April 2009, the Sheikh Ali Jaber Al- Ali Al-Sabah Award for online search was launched to encourage Internet browsing and search. The number of participants reached 1,480.

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<sup>1</sup> <http://www.e.gov.kw>

## D. USING DIFFERENT SOFTWARE MODELS

Government agencies and private sector institutions began to move towards proprietary registered software, which allows more room for website content management and deals with larger masses of information. Such information can be linked to a safer mode that is protected by the environment of information of those agencies and institutions with transactional activities.

As for individual sites or those belonging to small or medium sized enterprises, they rely on open source software or those that are available at a low cost and with medium capability.

In addition to that, another pattern emerged which is the web software. This software can be used easily in designing and building websites, and it does not require high technical expertise.

## IV. ICT CAPACITY BUILDING

### A. BASIC LITERACY

#### 1. *Development and promotion of programmes to eradicate illiteracy using ICTs*

In the State of Kuwait, all parties are interested in the eradication of informational illiteracy. Running internal courses to teach Internet and computer skills has become prevalent in many government agencies. The computer skills prerequisite from job applicants of many private sector institutions has also contributed to significantly increasing the individuals' interest in (ICDL) courses.

Civil society institutions are also interested in offering their employees special courses aiming at eradicating informational illiteracy. The Continuing Education Center at the University of Kuwait, which is directed towards the various segments of the society, became one of the approved centers for offering (ICDL) courses.

#### 2. *Availability of ICT-based alternative educational delivery systems*

The Civil Service Commission launched the distance learning portal which offers e- Training courses for developing public sector employees' computer and Internet skills. The Central Agency for Information Technology also offers an agreement for licensing the e-Learning of Microsoft Windows and Office software.

### B. ICT IN EDUCATION AND TRAINING

#### 1. *Integration of ICTs in education and training at all levels*

The Ministry of Education took several practical steps to get more out of ICT in the educational process. The ministry used incentives to encourage teachers to obtain the (ICDL) license. After the introduction of computers to all the ministry's schools and to all the various stages of public education, after connecting them to the Internet this has now evolved to include kindergarten in various school districts.

Currently, there is a project based in the Ministry which is specifically concerned with e-Portfolio in order to convert the current curricula into e-Books. The Ministry is also working on introducing educational techniques such as "Smart Boards".

As concerns higher education, the use of the so-called "Smart Classes" which involve tools that can assist in the development of the educational process has increased. Universities too have become connected to the Internet, as is the case at the University of Kuwait, where most of its colleges are now connected to a wireless network (Wi-Fi). The faculty also has become increasingly dependent in teaching IT and that

extended to classroom follow-up work which is carried out through electronic techniques such as the "Blackboard", at Kuwait University, and the "Moodle" at the Public Authority for Applied Education.

## 2. *Local ICT training centers*

Currently, there are more than 23 special training institutes that run specialized IT training courses, and 26 (ICDL) training centers. Most government agencies have internal training centers that provide computer skills courses.

## 3. *Distance learning and training as part of capacity building programs*

The Civil Service Commission established a website for distance training, to help develop the skills of public sector employees. Training IT courses ranging from beginners level to specialist level are offered on this site.

The Central Agency for Information Technology also allows for making use of the agreement on the licensing partnership with Microsoft in order to provide state employees with e-Learning of Microsoft office and its operating system.

As concerns the private institutes, e- Training is still not highly welcomed, as the public generally prefer to participate in the training courses in person.

## C. TRAINING PROGRAMMES FOR CAPACITY BUILDING IN THE USE OF ICT

### 1. *E-literacy skills for all*

In Kuwait, there are currently 26 institutes that offer (ICDL) courses. The government also began offering such courses for its employees and there are currently three institutes that offer the Cambridge course which is similar to (ICDL). Kuwait University through its Community Service Center also provides training programs for eradicating computer illiteracy.

### 2. *Capacity building training programs*

The Central Agency for Information Technology in cooperation with approved institutes offers (ICDL) courses for public sector employees. So far the number of its participants amounted to 547 employees. The Agency also offers an annual training; staff specialized in the field of IT, through which about 800 employees have been trained.

In the year 2008, the Agency launched a project: "the National IT Awareness Program", which aimed at increasing ICT awareness amongst citizens and residents. The sectoral plan in the IT field indicated that the implementation of this project is to be continued.

Until the end of 31/3/2008, the number of teachers in the Ministry of Education who obtained the ICDL or the Cambridge Certificate for IT skills amounted to 17,324 teachers, of which 78.7 per cent were female and 21.3 per cent were male.

## D. INNOVATION AND PATENTS

Kuwaiti companies play a tangible role in R&D. Al-Alamiah Technology Group<sup>2</sup> has a special team that work in the field of software development and arabization, offering a number of educational and

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<sup>2</sup> <http://www.alalamiah.com>

technical programs. The National Technology Enterprises Company, through its Innovation Center Incubator, is also interested in ICT software innovation.

The Microsoft Innovation Center which is dedicated to fostering programmers and transforming their ideas into software was established in cooperation between Microsoft, the Kuwait Institute for Scientific Research and the National Technology Enterprises Company.

In addition to this, the State of Kuwait signed a strategic partnership agreement with Microsoft which focused on developing a capable and effective workforce, in addition to developing the educational sector and supporting the technology sector. The agreement also focuses on the arabization of applications.

## **V. BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS**

### **A. USE OF ELECTRONIC TRANSACTIONS AND DOCUMENTS**

Due to the absence of laws and legislations, using electronic documents and electronic signature is still limited. Currently, there is a draft law on electronic transactions that addresses the issue of electronic documents and signatures.

At present, there is no national electronic signature and electronic authentication infrastructure and there are currently no local uses of the electronic signature. This is due to the absence of laws governing that, but the IT sectoral plan, covered the establishment and management of a national body for national certification. The Public Authority for Civil Information launched the "smart card" project, which is concerned with the electronic identity.

At the e-government level, electronic transactions nowadays are limited to the exchange of electronic copies of some documents. Amongst the successful experiences in the field of electronic documents management is a system called "Tasaheel" which was developed by the Ministry of Defense to save and retrieve its documents. Currently, the Ministry of Defense is collaborating with the Ministry of Social Affairs and Labor and the Ministry of Interior to transfer and apply the same system to their ministries. The electronic document management systems are considered to be widely spread in government departments.

The IT sectoral plan also included the project "the Governmental Intranet", which aims at creating a wired and a wireless network only for government use to secure the exchange of data, messages and documents efficiently and confidentially between the various government institutions, and to establish a special correspondence system to save and retrieve data and documents.

Moreover, the size of the financial transactions topped the overall electronic ones, whereby all Kuwaiti banks have websites that provide their customers with online banking services. The electronic trading of shares in the Kuwait Stock Exchange has also grown steadily. The reason behind the spread of electronic financial transactions is because financial institutions by virtue of the law are the ones that determine whether the financial transactions are valid or not.

With regard to buying and selling commodities, it is still limited and does not constitute a notable proportion to the total Kuwaiti business sector especially when compared with traditional buying and selling transactions. In spite of that, there are some successful concrete activities in this area such as the electronic transactions in travel and tourism.

### **B. ONLINE AND NETWORK SECURITY**

#### *1. Secure and reliable applications facilitating online transactions*

Key institutions in the public and private sectors are eager to provide security for their informational

structure and electronic transactions. Besides ISPs, information lines and telecommunications companies all use advanced and modern techniques in the area of network security. Among the most prominent achievements at the government level in this area is the work of the Central Agency for Information Technology in implementing a center for managing network and information security (SOC – Security Operation Center) within the project of the Kuwait network.

## *2. Cyber-Security*

The IT sectoral plan included a project for Computer Emergency Response, which aims at studying and analyzing how to reduce electronic and cyber security risks or gaps.

### *3. Best practices in the field of information and network security*

At the governmental level, advantage was taken from best practices in the Republics of Singapore and South Korea. These practices aim at guiding government agencies whilst designing "the process framework" to follow the international standards (ISO 27001/17799), in addition to "the IT infrastructure library" to apply the information security processes in order to raise the level of information security for networks. This can be achieved through raising the efficiency of the network infrastructure, the use of security hardware and software, and raising the level of information security for servers, computers and their accessories.

### *4. Data protection, network integrity and information and network security*

Data protection and information security have become routine procedures in all institutions that have a major informational infrastructure whether in public or private sectors. It was noted that private sector institutions take stricter measures in using and saving their computer resources and information systems, particularly those working in the areas of finance and investment.

Within the IT sectoral development plan, there is a project named "the National Disaster Recovery and Business Continuity Plan" which is currently under development the purpose of which is to protect data and integrity of government networks.

## C. PRIVACY AND DATA PROTECTION

### *1. Initiatives and guidance on privacy and data protection*

The sectoral plan included a project entitled "the general framework of national information security" whose objective is to lay down, implement and manage an integrated plan for the establishment of the infrastructure for the security of electronic information. It is a strategic plan for information security that covers in phase one the government sector. The electronic transactions draft law, contains a special section on the privacy of personal data of individuals.

### *2. Spreading awareness and knowledge among users about Internet privacy*

The private sector is considerably interested in raising its users' awareness concerning the issue of privacy. This is due to the importance of this aspect in e- Business services. Most private institution sites which offer electronic services, such as banking, clearly state to their customers their websites' privacy policies although they are not legally obliged to do so.

On the other hand, civil society institutions give importance to the issue of privacy in electronic transactions in order to make people aware of their cyberspace rights. The Kuwait economic society, the Kuwait IT Society and the Kuwait Society of Engineers held seminars which dealt specifically with data protection and privacy.

Within the scope of partnerships between all stakeholders, a forum on information security and privacy was organized under the auspices of the Central Agency for IT, the Kuwait IT Society, Zain Telecom and Cisco.

#### D. COUNTERING MISUSE OF ICTS

##### 1. *Prevention, detection and prosecution of cyber-crimes and misuse of ICTs*

In 2008, the Ministry of Interior established a special department to combat cyber crimes such as electronic money theft, and electronic fraud with a view to prosecuting cyber crimes.

In addition to that, there is a major concern within the sectoral IT development plan to lay down a law regarding the misuse of computers in order to establish the proper legal framework in dealing with cyber crimes and to build confidence in e- Business.

##### 2. *Fighting spam at national and international levels*

It was previously noted that in the State of Kuwait there is no current project to deal with cyber crime, which includes spam. In the combat effort, banks advised their customers that they never request private data via e-mails and that any e-mail requesting such information is in fact spam.

##### 3. *Real-time incident-handling and response*

Banks are making great efforts to prevent and detect those who abuse the technology. Some Kuwaiti banks contacted some of their customers and changed their ATM cards after they had detected incidences of illegal theft of customer balances via stolen ATM cards.

### VI. ENABLING ENVIRONMENT

#### A. LEGAL AND REGULATORY ENVIRONMENT

##### 1. *Supportive, transparent, and pro-competitive, legal and regulatory framework*

The State of Kuwait needs further ICT applications legislation. The sectoral plan for IT development stated the need for laws concerning electronic transactions; like laws for the misuse of the computer, laws for consumer protection, and some amendments to the laws of intellectual property to keep pace with electronic uses.

##### 2. *Intellectual property including piracy*

In 1999, the State of Kuwait laid down a law to protect intellectual property. Since the application of this law, the proportion of pirated software has decreased. In 1999, it was more than 95 per cent. It dropped to about 61 per cent in 2008, according to reports of the Business Software Alliance. The Ministry of Trade and Industry is responsible for implementing this law and it has established an administration for the protection of intellectual property, part of its duties is to reduce the rate of software piracy.

##### 3. *Effective dispute settlement systems*

In Kuwait, there is a center recognized locally and internationally for commercial arbitration belonging to the Chamber of Commerce and Industry. This center is qualified to settle disputes in the field of ICT.

#### 4. *Updated domestic consumer protection laws*

The Ministry of Trade and Industry prepared a draft law for consumer protection. It is expected to be sent to the Cabinet for consideration and then to the National Assembly for approval.

#### 5. *Telecommunications and Internet regulation*

There is a serious move by the government to establish a Telecommunications Regulatory Commission. There is also a draft law which has been completed and is waiting to be considered for approval by the authorities. Currently, the Ministry of Communications is the regulator and the operator of the telephone network. The Ministry has prepared a list that regulates the mechanism governing the licensing of Internet companies. The preparation of the list has been completed and now that Internet companies have expressed their opinions concerning it, it is expected to be approved soon.

### B. DOMAIN NAME MANAGEMENT

In the State of Kuwait, the Ministry of Communications is responsible for the management of the domains related to the Internet network and that of the upper range (.kw) for the State of Kuwait. The Ministry outsourced this task to the Kuwait Institute for Scientific Research. At the end of 2007, the total number of registered sites amounted to 2,090.

### C. STANDARDIZATION IN ICT

#### 1. *Promotion, development and use of open standards*

Specialized bodies have been outsourced for carrying out periodic tests based on approved international standards in order to test performance, usability, and security aspects of electronic governmental sites.

The private sector in Kuwait is believed to be ahead at the operational level, information systems, communication, management of computer resources and technical audit.

The IT sectoral plan included a project for the development of standards, methodology, policies and procedures necessary for the management and the implementation of IT public sector tasks and information systems.

#### 2. *Awareness and adoption of international interoperability standards*

Currently, the application of international standards of operation is concentrated on the banking sector in particular with regard to money exchange, the issuance of credit and ATM cards. In addition to that, special airline standards are currently applied for the issuance of electronic tickets according to IATA measures and standards.

### D. SUPPORTING MEASURES

#### 1. *Entrepreneurship and innovation*

An official Office was established for patents registration in Kuwait and was annexed to the Ministry of Trade and Industry to register new innovations in line with international conventions. The activities of the Office cover innovation in the field of IT.



## *2. Community development*

The State of Kuwait encourages scientific seminars and competitions that grant awards in the field of IT, the most important of which is the Kuwait award for the enrichment of electronic content<sup>3</sup> which is sponsored by the Kuwait Foundation for the Advancement of Sciences. It is an approved award by the world summit award for Informatics (wsis-award.org) for the State of Kuwait.

The Sheikh Salem Al-Ali Al-Salem Al-Sabah competition is also held annually (www.alsabahaward.org). It is specialized in Internet sites, and it began as a national competition but now it covers the whole Arab world. The total sum of the Awards of the competition is nearly 100 thousand Kuwaiti dinars.

## *3. Incubation schemes*

Currently, there are two governmental incubators. The first is the "small projects company" that funds projects in the vicinity of 500 thousand dinars including IT projects. The Technology Entrepreneurship Center which is a branch of the National Technology Enterprises Company also incubates innovative ideas and turns them into projects.

## *4. Venture capital investments*

At present, there is no pattern for venture capital investments, but the project entitled "the Establishment of a Digital Oasis" mentioned in the sectoral plan addresses that.

## *5. Government investment funds*

Through the allocation of industrial coupons, the Public Authority for Industry provides support that innovators can use and employ in the implementation of their genuine ideas. There is also the Industrial Bank fund which is granted to small and medium sized projects and which is regarded as a funding mechanism for innovation and invention.

## *6. Investment promotion strategies*

The IT sectoral plan included a project entitled "Integrated Business Services ", which aims at providing a single entry point for the business sector to help them get the government services that are related to their work.

The State of Kuwait has also issued laws, rules and regulations that encourage investment and embrace valuable initiatives at a national level.

## *7. Software export support activities*

The Public Authority for Industry has expanded the scope of the licensing of software industry besides providing the infrastructure and the support needed to provide opportunities for producers to export abroad.

## **VII. ICT APPLICATIONS**

All available means of communication and electronic applications are used across all Iraqi ministries to improve the performance of different employees and to raise the productivity and interaction with other mutual bodies within the Government. At the Ministry of Labor and Social Affairs, for example, several systems are being applied in the departments of the Ministry such as the salary payment system, the

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<sup>3</sup> <http://www.kuwaiteAward.org.kw>

subscription system, the services system; in addition to that the ministry is connected to the Internet via wireless broadband (WBB) system which is specifically used for the e-government project.

## A. E-GOVERNMENT

### 1. *ICT in public administration*

Government departments made great strides in the computerization of their work and their systems went through several development and modernization stages.

On 30.1.2009, the General Administration of Customs completed the development of version 3 of the automated customs system.

The Ministry of Finance launched its e-Portal for the collection of revenues of the State properties whereby individuals and institutions pay electronically through this portal the rent of their state properties.

### 2. *e-Government solutions*

#### (a) *Government to government solutions (G2G)*

Currently, there is a government project specifically for shared businesses between the Public Authority for Housing Welfare and the Ministry of Justice under implementation. It will be on the official e-Portal of the State of Kuwait.

#### (b) *Government to citizen solutions (G2C)*

On 19/10/2009, the official website Portal for the State of Kuwait which offers its services to both citizens and residents was launched. Currently, its services include 51 e-Government services, along with 247 government e-Information services. Since the launching of the portal, the number of its users amounted to about 253 thousand. The business sector represented by the Kuwait Chamber of Commerce and Industry provides its services through this portal too. The portal uses both languages Arabic and English to present its services.

#### (c) *Government to business solutions (G2B)*

The e-Payment government service was launched with the signing of an agreement between the Ministry of Finance and the Shared Electronic Banking Services Company in order to collect from the public state financial revenues and charges. Five ways are available for electronic payment and these are: the individual and integrated selling points, self-service devices, online payment, and payment through mobile telephones.

### 3. *Availability, adoption and use of e-Procurement applications*

The IT sectoral plan included a project called "creating the necessary environment for the implementation of the sub-portal for government procurement", which is aimed at serving the business sector. This can be achieved through allowing for the implementation of all procedures and government procurement tenders through the e-Government portal. It will also contribute to improving the bidding procedures, which will reflect the seriousness and transparency in government transactions. The oil sector is one such model in the country whereby the Kuwait Petroleum Corporation applies an electronic purchasing system which includes purchase orders and tenders.

## B. E-BUSINESS

### 1. *Availability and quality of e-business services*

At present, e-Business activities are focused on specific economic activities such as online banking and e-Trading etc...

### 2. *Spread and development of e-Applications*

The use of e-Business activities has witnessed considerable growth, commercial banks state that e-banking is now the main channel for dealing with their customers while previously it was only considered a subsidiary one. The limited spread of e-Business may be attributed to the absence of the legislative and regulatory framework which represents the enabling environment for e-Commerce. There is only one exception to that which is the intellectual property law.

### 3. *Use of e-Business international standards*

The standards used in e-Business are the same international standards adopted by credit card companies and the same standards used in financial and banking transactions.

### 4. *Laws of e-Business and e-Signatures*

A draft law regulating electronic transactions was laid down. It included the definition and the identification of electronic records, identity and electronic signature in addition to data protection and electronic privacy. This draft law is currently being discussed and prepared for approval.

### 5. *Availability and use of electronic payments systems*

The Shared Electronic Banking Services Company (Knet) provides a gateway for e-Payment. Companies can use it for online payment and collection. There is also a commercial service for e-Payment via the use of SMS and mobile telephones (MPAY).

## C. E-LEARNING

### 1. *Primary and secondary education*

The Ministry of Education introduced electronic media to support education and used a set of its tools in the development of teaching aids. The Ministry has already started implementing a project on "e-learning" through allocating an e-mail address for each student and through offering the curricula on the Internet and on CD-ROMs.

The Ministry in partnership with Microsoft and the Regional Center for Software completed a plan for the development of all stages of education. At the end of 2008, the number of students in all stages reached the numbers indicated in table 1 below:

TABLE 1 - NUMBERS OF STUDENTS, 2008

| Stage  | Primary | Intermediate | Secondary(1st group) |
|--------|---------|--------------|----------------------|
| Number | 12,872  | 8,369        | 4,238                |

The IT sectoral plan included a project for the development of learning through electronic means. It aimed at raising the efficiency of the state's educational institutions to include (850) schools with (418)

thousand students and to provide each student with a portable computer and to transform schools into model schools like smart schools.

## 2. *Higher education*

Learning management systems were used at the University of Kuwait, at a number of private universities, and at vocational training institutes in the country to manage the process of e-Learning. Vocational training institutes also provide e-Learning in more than one field. In addition to that, Kuwait joined the World Bank network (Global Development Learning Network-GDLN), which is a network devoted to distance learning.

At Kuwait University there is also an IT specialized center which is developing a set of automated and archival systems. It also provides scientific and technical support.

At the University there are also 60 websites under the umbrella of Kuwait University<sup>4</sup> which provide services to students, faculty and the public.

In addition to that, the website of the Public Authority for Applied Education and Training provides various services for faculty, administration and student services. Kuwait University has e-Libraries which contain electronic resources that can be used by students for their study and research. The Public Authority for Applied Education and Training also has its own central electronic library.

Since distance learning or e-Learning (Online Learning) is not officially recognized by the State, its spread has been on a limited scale.

## D. E-HEALTH

### 1. *Availability and access to world medical knowledge*

The Ministry of Health site allows access to a variety of medical search sites (35 sites) and international medical sites (76 sites). Access is available to all through the Ministry's website.<sup>5</sup>

### 2. *Implementation of health care information systems*

Using a specialized database, the Ministry of Health is engaged in the implementation of a plan for the computerization of work in all hospitals and health centers. These systems operate within the Ministry's information network. The Ministry has established an electronic portal for its services and its medical work.<sup>6</sup>

### 3. *Using ICT based information systems to alert, monitor and control the spread of communicable diseases*

The Kuwait Institute for Scientific Research established a system for monitoring the bird flu epidemic. It aims at following up the global spread of the disease and its expected entry into the country.

## E. E-EMPLOYMENT

The IT and the Internet have been used intensively in the advertisement and the reception of job applications. The Civil Service Commission also receives electronic employment applications from those

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<sup>4</sup> <http://www.kuniv.edu>

<sup>5</sup> <http://www.moh.gov.kw>

<sup>6</sup> <http://www.moh.gov.kw>

willing to work in the public sector. Receiving employment applications through the Internet via the official state web portal has become the main method for advertizing jobs and receiving job applications.

As concerns the private sector, e-Employment takes place in many ways. There are a number of companies specialized in recruitment like gulf-rec.com and Bayt.com. It has become common practice to find a link for employment on the websites of Kuwaiti private companies.

The IT sectoral plan included a project called "Manpower Planning in the State". It aims at providing information about the size of the workforce and the possibility of predicting market needs. It also aims at linking market needs in the different fields with learning outcomes in education.

To develop a strategy for organizing employment in Kuwait through electronic means, the restructuring program of the Civil Service Commission sought the assistance of a global company. This strategy document was prepared in 2008.

## **VIII. CULTURAL DIVERSITY AND IDENTITY, LINGUISTIC DIVERSITY AND LOCAL CONTENT**

### **A. USE OF ICT IN SUPPORT OF CULTURAL AND LINGUISTIC DIVERSITY**

#### *1. Using ICT for the preservation of linguistic diversity and cultural heritage*

In order to preserve the cultural identity and to protect Kuwait's heritage, cultural and scientific institutions in public and private sectors are saving their publications on media and disseminating them electronically. At the level of the State the increase in electronic publishing can be felt through the use of search engines. The Web sites and electronic publications are no longer restricted to the language of the original publication but have become multilingual.

#### *2. Development of national digital archives and the digitization of public information*

The government and civil agencies developed the digital archives, digitizing the educational, scientific and cultural heritage. One such example is the decision of the Council of Ministers No. (105/V) of 2008 which requires government departments to translate their content concerning laws and regulations governing e-Commerce and to publish it on their websites. Another example is the Amiri Diwan which prepared a project concerning the translation of its website content, publishing it in four languages.

The National Library of Kuwait is also implementing a project for saving the national heritage, preserving it and making it automatically accessible. This is carried out through the scanning, digitizing and script storage of a selection of books, periodicals, rare documents, manuscripts, and published Kuwaiti heritage. This is included in the framework of the implementation of a project called "the National Bibliographic System" and within the automatic textual search facility of the database.

### **B. LOCAL AND NATIONAL DIGITAL CONTENT DEVELOPMENT**

#### *1. Digital content development*

The State of Kuwait embraced many cultural projects such as the "AlArabi magazine", "the Kuwait Foundation for the Advancement of Science", and "the Library of Abdul Aziz Al-Babtain" which issued a guide on "the civilized front of Kuwait" in both Arabic and English, on CDs. It also published this guide on its website and is currently being published on the official e-Portal of the State.

Now many of the recently printed publications of these institutions include magnetic disks which contain an electronic copy of the publication and translations of it. Its websites also have become bilingual and use advanced technologies.

As for government sites, they have evolved from simple sites which were created by its employees into sites with a clear information structure.

As far as the private sector is concerned, many Kuwaiti private companies' websites were turned into electronic portals providing various electronic services including investor relations services and submitting reports and data on the companies' performance.

It is also important to note the increase in the number of electronic forums and blogs with their diverse subjects and multi-media content.

## *2. Development and distribution of software in local languages*

The Kuwait Institute for Scientific Research designed and implemented ways to help the blind use computers. These solutions included designing hardware and accessories. The Institute also developed a Press for the Blind. The Kuwaiti Society for the Blind has a special computer lab for this. The Shared Electronic Banking Services Company (Knet) installed a special ATM for the blind at the Kuwait Society for the Blind.

### C. ICT TOOLS AND R&D PROGRAMS

#### *Promotion by government of technologies and R&D programmes*

At the R&D level, the efforts of the international company (Sakhr) in the development of various informational tools have contributed to the enrichment and development of Arabic content. Sakhr for example, has been able to develop the search engine "Al-Idrisi" which is nowadays used as a search engine for Arabic sites. It has also developed a number of special techniques for automatic processing of the Arabic language such as morphological processing and others. Besides, it developed a programming framework for Arabic Software which it employs in its development of Arabic programs. In addition to that, it established a web portal under the name of (ajeeb)<sup>7</sup> whereby it uses techniques such as dictionaries and translations which it had developed in the web environment.

During its implementation of the album system which aimed at monitoring the Kuwaiti Internet sites and indexing its content, the Kuwaiti Chamber of Commerce and Industry used the data warehousing technique and adapted it to the Arabic language.

It is also worth mentioning that the efforts of the Arab Regional Center for Development of Educational Software (ReDSOFT),<sup>8</sup> which is embraced by the State of Kuwait, focuses on software development of Arabic educational and training content.

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<sup>7</sup> <http://ajeeb.sakhr.com>

<sup>8</sup> <http://www.redsoft.org>

## **IX. MEDIA**

### **A. MEDIA INDEPENDENCE AND PLURALISM**

#### *1. Media diversity*

In 2008, the number of newspapers in Kuwait went up to 31, (15 in Arabic and 3 in English). The number of weekly newspapers also went up to ten newspapers in addition to three e-Journals.

As for audio-visual transmission, a special law was issued giving permission for the establishment and licensing of private video and audio channels. In Kuwait nowadays, there are seven public broadcasting stations and one private station. There are also various television stations, 4 public land channels, 5 public satellite channels in addition to 19 permanent and temporary satellite channels.

#### *2. Media ownership*

The constitution of the State of Kuwait guarantees the freedom of opinion, thought and expression. This freedom was reflected on the freedom of the media. The press in Kuwait is owned by the private sector, and it operates within an atmosphere of democracy and free expression. This is stressed in the law on publications. There are some private Kuwaiti television channels that are licensed in addition to one private radio station.

The Ministry of Information is the body responsible for official media which includes television and radio within the State of Kuwait; likewise it is the body responsible for licensing audio, visual, and printed media.

#### *3. The media and its contribution to the freedom of expression and plurality of information*

The Kuwaiti media plays an important role in the dissemination of ideas and information. It presents programs with a good degree of liberty in all areas. It should be noted that the Organization of Reporters without Borders ranked Kuwait in first place with regard to press and media freedom in the Arab world.

#### *4. Gender portrayal in the media*

In order to attract more listeners and viewers media stations are keen on ensuring diversity and striking a balance in the type of information they present. There are several factors that govern this diversity, such as the strict preserving of values and beliefs acceptable to society and the existence of a clear informational message. What applies for the official media also applies for the private media, which has become more dynamic and free in the production and transmission of its information. It also possesses great information capacities and resources.

### **B. THE MEDIA AND ITS ROLE IN THE INFORMATION SOCIETY**

#### *1. The role of printed media, broadcast, and new media in the Information Society*

There are a number of Kuwaiti television and radio programs that cover topics which are related to the Information Society, some of which are specialized in the technical and technological fields and others are specialized in topics related to family or culture.

In this context, part of the weekly family program called "your home" which comes on the television of the State is dedicated to educate the public in the field of IT. It also produces and broadcasts a program called "Compunet".

On the other hand, Kuwaiti media institutions are interested in transmitting their work digitally via the Internet. This helps enrich the digital national and local content. Examples on this are the Radio of the State of Kuwait, Marina FM Radio, Al-Rai channel and Al-Watan TV channel. This interest is due to the fact that it is helping in the spread of information outside the geographical boundaries of satellite transmission. As for the Kuwaiti daily newspapers 14 out of 15 have Internet sites. A number of weekly Kuwaiti newspapers allocate special pages on ICT. They also allow their readers to express their opinions and to participate in the discussion of their news. There are several daily newspaper sites which provide RSS Feeds. There are also magazines like "Internet guide" and "dot" which are specialized in ICT.

The Kuwait News Agency has also developed its Website in order to be able to use both Arabic and English languages.

## *2. Use of traditional media in bridging the knowledge divide*

As previously mentioned, there is a program entitled "your home" which provides a weekly item on computers. Another program, Compunet, is specialized in IT. Daily newspapers also devote weekly pages for IT. Moreover, there are two journals "Internet Guide" and "Dot" which are specialized in the field of ICT.

## **X. INTERNATIONAL AND REGIONAL COOPERATION**

### **A. FINANCING OF ICT NETWORKS AND SERVICES**

#### *1. Attracting national and foreign investments in the field of ICT*

The law No. 7 for the year 2008 provides an enabling environment that attracts investment projects in all areas including IT.

#### *2. Improvements and innovations of financing mechanisms*

The State is interested in the establishment of several models of incubators to encourage innovation and to guide youth towards the business sector. The State has established the "small projects company" which is interested in funding projects with a capital of up to 500 thousand Kuwaiti dinars. The State has also established the National Technology Enterprises Company which established a center of innovation. This center is an incubator which studies the feasibility of new ideas and lays down the administrative, financial, and investment framework for them. The Industrial Bank of Kuwait has also established a fund for craftsmen, which aims at financing small and medium-sized companies with easy loans.

### **B. INFRASTRUCTURE DEVELOPMENT PROJECTS**

#### *1. Implemented and future planned projects supported by international or regional organizations*

Currently the "smart card" project is being implemented jointly among the countries of the Cooperation Council for Arab Gulf Countries. It aims at unifying identity cards and transforming them into electronic smart cards. That will be put into use in the second half of 2009.

#### *2. Governmental efforts to market ICT projects and raising its national priority*

One of the outcomes of the memorandum of understanding between the State of Kuwait and the Republic of Singapore is that an advisory group from the Singapore IT Authority is providing technical consultancy for the Kuwait Information Network Project.

Similarly, one of the outcomes of the Memorandum of Understanding between the State of Kuwait and the Republic of Korea is that cooperation will take place between the two countries in various fields such



as information security, privacy technology, and electronic authentication of Internet-related aspects of e-Commerce and government e-Business and so on.

The State of Kuwait also took part in the work of the team which elaborated on the strategy entitled "the Arab General Strategy on ICT - Building the Information Society 2007-2012". The team was given the task of laying down an action plan for this strategy. The State of Kuwait will continue to participate in its activities until its mission is accomplished.

### C. WSIS FOLLOW-UP

#### 1. *National action plans supporting the fulfillment of WSIS goals*

The IT sectoral plan was prepared within the framework of the five-year plan for development in Kuwait (2009/2010-2013/2014). It included plans to build the information society, and 30 IT projects and initiatives. It relied on the outputs of the World Summit on the Information Society, the Regional Action Plan for Western Asia for the building of the information society and the Arab General ICT Strategy.

#### 2. *Regional projects for building the Information Society*

- The project for issuing the smart card which is due to start in the second half of 2009;
- The project of the fiber-optic cables for information transfer.

#### 3. *Assessing the magnitude of the digital divide*

The average number of PCs per 100 people is 23.7. The total number of Internet users is about 900 thousand users, which constitutes 34 per cent of the total population. This figure is 2 per cent higher than it was in 2006.

#### 4. *Availability and development of tools providing statistical information on the Information*

Most government institutions such as the Ministry of Interior and the Ministry of Education established a department for statistics in order to provide the data and the indicators necessary for laying down annual plans in the area of information systems.

The IT sectoral plan also included a project entitled "the document for the indicators of the Kuwaiti information society" which aims at monitoring the IT activities in the State in order to assess the extent of its progress, and to build on its strengths.

#### 5. *Success stories*

Most initiatives, the ongoing projects, and the projects which were completed and were referred to in this report are success stories which can be benefitted from.

## **XI. MILLENNIUM DEVELOPMENT GOALS**

### A. PROGRESS TOWARD ACHIEVING THE MDGs

#### 1. *Progress made towards achieving the MDGs*

Since the establishment of the Central Agency for Information Technology in 2006, which was entrusted to formulate the general IT policies, the following progress towards achieving the MDGs was made:

- Since 2007, there has been a decline in the rate of inflation and poverty, an expansion in the encouragement of small and medium sized projects, and a development of technological industries especially in the area of software development;
- The duration of medical treatments and the number of operations decreased to 50 per cent, this can be partly attributed to the building of an electronic database archive for every citizen which helps in more accurate diagnosis and treatment;
- The State of Kuwait is almost free of illiteracy. This is due to the increased introduction of technology such as e-Learning and distance learning in the educational process.

There are numerous awareness and media programs that use technology to raise people's awareness of the meaning of environment protection, as well as the preparation of laws to incriminate infringements on the environment.

Kuwait made Arab, regional and international agreements and memoranda of understanding regarding programs for the total development of the society. Among these, we mention the cooperation agreements with Microsoft for the purpose of disseminating technology and information literacy to all segments of the Kuwaiti society.

## *2. Efforts and stock taking initiatives*

As concerns the position of the State of Kuwait regarding the second objective of the MDGs which has to do with achieving universal primary education, the 2006 United Nations report on Human Development mentioned that in Kuwait the proportion of primary school enrollment reached 86 per cent.<sup>9</sup>

As for the third MDG objective on "gender equality and empowering women", the UNDP 2006 report stated that the proportion of females in primary schools reached 87 per cent, which is equivalent to 1.03 per cent when compared with males. As for the secondary level of education, the proportion of students entering secondary schools reached 78 per cent and the proportion of females in particular is 80 per cent which is equivalent to 1.05 per cent when compared with males. According to the 2006 UNDP report: it should be noted that globally the State of Kuwait is ranked 33 in human development, the highest ranking country amongst all Arab countries.<sup>10</sup>

With regards to the objective of "gender equality and the empowerment of women", Law No. 17/2005 dated 4.6.2005 was also issued to grant Kuwaiti women their political rights. This resulted in two Kuwaiti women occupying the posts of minister, in addition to four women who won seats in the latest free and direct elections of the nation's assembly.

As for the eighth goal of "a global partnership for development", many partnerships have been made at the national level with international ICT parties. One such example is the strategic partnership agreement that was signed with Microsoft. The Singapore-Kuwait cooperation in e-Government applications is also another example of global partnerships. The participation of the Kuwait Institute for Scientific Research in the World Bank Global Distance Learning Network<sup>11</sup> is also another example.

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<sup>9</sup> <http://hdr.undp.org/en/reports/global/hdr2006>

<sup>10</sup> <http://hdr.undp.org/en/reports/global/hdr2006> - page 283

<sup>11</sup> <http://www.gdln.org>

## B. USE OF ICT FOR ACHIEVING THE MDGs

### 1. *Determining how to use ICT to stimulate development*

In general the State of Kuwait was greatly interested in increasing the use of IT components by all Kuwaitis in all walks of life. In particular, it was interested in encouraging and motivating people to achieve comprehensive and sustainable development through the use of IT. The following are specific examples on this:

- The General Secretariat of the Kuwaiti Council of Ministers built an integrated automated system to support decision making. The system derives its data from State Institutions through an information transfer network. This has had a great impact on the security and speed of decision-making;
- The Kuwait Municipality used IT to build geographic and engineering databases which have helped to automate geographic and engineering systems in the planning of urban communities, attracting domestic and foreign investment;
- The Committee on Women's Affairs at the Kuwait Council of Ministers built an automatic information system. The system derives its information locally and internationally from international institutions and agencies that are concerned with women's affairs.

### 2. *ICT field projects, case studies and success stories*

As concerns the fourth objective "to ensure environmental sustainability" ICT was employed in the project of the Kuwaiti environmental information network. The objective of this network was to gather environmental information in order to protect the environment and to access the environmental conditions through the use of GIS technology.

The IT sectoral plan also included a project entitled "performance indicators of the governmental sector", which aimed at laying down international standard foundations for measuring the performance of automated systems and electronic services using technological methods and automated software. The project's aim was also to make use of these indicators in planning to address the drawbacks and enhance performance. The following are some field projects linked to the Millennium Development Goals:

- The cooperation between the Ministry of Interior and the telecommunications companies to provide services for traffic violation enquiries.
- The cooperation with the owners of the commercial markets in order to assign electronic points of presence (Kiosks) for their electronic services;
- The incubator for the Innovation Center of the National Technology Enterprises Company;
- The agreement with Microsoft Corp. on a strategic partnership and the establishment of Microsoft's incubator for creativity;
- The Singapore-Kuwait cooperation in the field of e-Government applications;
- The cooperation between the Kuwait Institute for Scientific Research and the Global Distance Learning Network-GDLN;
- The cooperation between the Environment Public Authority, the Kuwait Institute for Scientific Research, and the United Nations Development Program to establish an environmental information network in Kuwait;
- The R&D activities that are carried out by the international company (Sakhr) in the field of Arabization and Arabic educational and cultural programs;
- The agreement between the State of Kuwait and the Arab Fund for Economic and Social Development to host the Arab Regional Center for Development and Educational Software.

## **XII. BUILDING THE ICT SECTOR**

### **A. ICT FIRMS**

#### *1. Telecommunications companies*

There are currently three operators of mobile networks and four licensed ISPs. At present, there are also five companies in the field of communications listed on the Kuwait Stock Exchange.

#### *2. Software and computer services*

There are five companies operating in the field of IT and registered with the Kuwait Stock Exchange. As for the total number of IT companies registered in 2009 with the Central Agency for IT, there are 182 companies. Although, lately the Kuwaiti market did not witness a marked increase in the number of companies, but these companies have become more organized and determined to market and provide their services and to identify their customers. The IT companies have become more interested in obtaining professional certification for their employees or obtaining the classification from solution providers or obtaining certificates in quality (ISO). Many companies also began to work within the economic or government sector. In general, most companies began to focus their current activities towards e-Services.

At the retail market level for computers, accessories and ready-made software, the market became similar to the consumer electronics market. Nowadays, there are seven major electronic companies for selling computers, accessories and software.

### **B. R&D AND INVESTMENTS IN THE ICT SECTOR**

#### *1. R&D in ICT equipments, tools, and services*

The R&D activities focused on the development of content and Arabization. The report previously mentioned that in paragraph (8C): ICT tools and R&D programs, where it highlighted the role of the international company (Sakhr), the Arab Regional Center for Development and Educational Software (ReDSOFT), and the Kuwait Chamber of Commerce and Industry in the field of ICT.

#### *2. Local and foreign investments in the ICT sector*

The State of Kuwait is greatly interested in domestic and foreign investments in IT, and for this reason it took the following measures:

- Forming a higher committee from the Ministry of Finance, the Ministry of Trade and Industry and the General Secretariat of the Supreme Council for Planning and Development;
- Following-up and encouraging foreign investment through the Foreign Investments Office at the Ministry of Trade and Industry;
- Simplifying the procedures for registering patents and inventions at the Ministry of Trade and Industry;
- The Consultants Committee adopted the registration of the highly appreciated international companies, setting priorities for seeking help from the best to cooperate with the local private sector.

The sum of investments of other companies in various other ICT activities is not available.

## C. CONTRIBUTION OF ICT SECTOR IN THE NATIONAL ECONOMY

### 1. *ICT Expenditures*

in 2008, the total sum of money spent on IT in Kuwait amounted to about 774 million U.S. dollars. Approximately 333 million dollars were spent on computers and accessories, 209 million dollars on software, and 232 million dollars was the turnover of information services.

The total sum of government expenditure on IT was about 69 million Kuwaiti dinars, which is the equivalent of 237 million U.S. dollars.

### 2. *Contribution to the gross domestic product (GDP)*

According to the World Bank report, spending in the ICT sector in 2007 was equivalent to 4.5 per cent of the gross domestic product.

### 3. *Employment in the ICT sector*

The IT sectoral plan included a project for "building a system to measure the impact of IT development on the State". Its objective is to learn about the extent to which the state is benefitting economically and socially from IT and its applications.

## D. GOVERNMENT FACILITATION

The State of Kuwait has given importance to ICT in order to open horizons for its national economy, and for that reason it provided several facilities, including:

- Restructuring information systems centers in the State to give it the flexibility to cooperate with the requirements of an effective partnership with the private sector;
- Simplifying the contractual procedures for strategic projects and providing financial incentives and political support for private sector initiatives (domestic and international);
- The general trend towards the privatization of some government sectors such as the post, information transfer services, and the Internet, etc;
- Establishing "the Digital Oasis in the State of Kuwait" to provide high quality incubators for the implementation of technology projects, especially small and medium-sized enterprises and encouraging research and innovation amongst Kuwaitis;
- The establishment of the Foreign Investment Office at the Ministry of Commerce and Industry in order to support and facilitate participation;
- The Civil Service Commission started streamlining government services to prepare it for automation and to make the most of its outputs.

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