

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

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

United Nations

Distr.  
GENERAL

September 2007  
ORIGINAL: ENGLISH

**Disclaimers:**

This document has been reproduced without formal editing.

The views expressed in this paper are those of the authors and do not necessarily reflect the views of the United Nations Secretariat.

Bibliographical and other references have, wherever possible, been verified.

Mention of firm names and commercial products does not imply the endorsement of the United Nations.

## CONTENTS

	<i>Page</i>
Introduction .....	1
<b>I. THE ROLE OF THE GOVERNMENT AND ALL STAKEHOLDERS .....</b>	<b>1</b>
A. National information society policies and e-strategies .....	1
B. Public/Private Partnership (PPP) or Multi-Sector Partnership (MSP) .....	3
C. Role of Non Governmental Organizations.....	4
D. Progress towards fulfillment of national policies and strategies .....	4
<b>II. ICT INFRASTRUCTURE.....</b>	<b>6</b>
A. Infrastructure .....	6
B. Investments in ICT infrastructure and development of new services .....	6
C. ICT connectivity .....	6
D. ICT equipment and services.....	7
E. Internet Governance .....	7
F. Traditional media .....	7
<b>III. ACCESS TO INFORMATION AND KNOWLEDGE .....</b>	<b>8</b>
A. Public domain information.....	8
B. Access to information and public information.....	8
C. Multi-purpose community public access points.....	8
D. Using different software models .....	8
E. Free and open access to scientific knowledge.....	9
<b>IV. ICT CAPACITY BUILDING.....</b>	<b>9</b>
A. Basic literacy .....	9
B. ICT in education and training .....	9
C. Training programmes for capacity building in the use of ICT.....	10
D. Research and development.....	10
<b>V. BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS .....</b>	<b>10</b>
A. Countering misuse of ICT.....	10
B. Privacy and data protection.....	11
<b>VI. ENABLING ENVIRONMENT .....</b>	<b>11</b>
A. Legal and regulatory environment .....	11
<b>VII. ICT APPLICATIONS.....</b>	<b>12</b>
A. E-Government.....	12
B. E-Education.....	13
C. E-Health .....	13

**CONTENTS** (*Continued*)

*Page*

<b>VIII. CULTURAL DIVERSITY AND IDENTITY, LINGUISTIC DIVERSITY AND LOCAL CONTENT</b> .....	14
A. Use of ICT in support of cultural and linguistic diversity.....	14
B. Local and national digital content development .....	14
C. Arabic Domain Name System – ADNS.....	14
<b>IX. MEDIA</b> .....	15
<b>X. INTERNATIONAL AND REGIONAL COOPERATION</b> .....	15
<b>XI. MILLENNIUM DEVELOPMENT GOALS – MDG</b> .....	16
<b>XII. WORLD SUMMIT ON THE INFORMATION SOCIETY - WSIS</b> .....	16
References .....	17

## Introduction

Located in the Middle East, Qatar projects from the Saudi Arabian mainland with a 60 km land border. Saudi Arabia is to the west; Qatar faces Iran across the Gulf to the east. It is south of Iraq and north of the United Arab Emirates. Its area is 11,437 sq km (4,427 sq miles), about the size of Switzerland. Covering 11,437 square kilometers, Qatar is small but its growing influence extends well beyond the Gulf region<sup>1</sup>.

Renowned for its safe and secure environment, its pristine beaches, its dramatic sand dunes and its rapidly developing infrastructure, Qatar is reaping the rewards of well planned and far-reaching economic, political and tourism strategies<sup>2</sup>.

Qatar's rapid economic growth has enabled it to become one of the wealthiest countries in the world, as measured by GDP per capita which in 2006, reached a record level of \$32,596. The Gross Domestic Product reached US\$ 45 billions for the same year, while population estimate for 2006 is 840,000<sup>3</sup>.

Qatar's economy continues to grow and has become one of the fastest growing economies in the world. Nominal GDP growth was 33.8% in 2005, and is estimated by Qatar National Bank (QNB<sup>4</sup>) to grow by a further 27.1% in 2006, and 17.0% in 2007 (Table 2.2). Moving the economy forward is the rapidly expanding Natural Gas sector and related industries, which continues to lead the economic diversification efforts and provides the momentum for reshaping the economy<sup>5</sup>.

Qatar aims to fully exploit ICT to become a world-leading knowledge-based society<sup>6</sup>, this was translated in 2005 by the launch of ictQATAR<sup>7</sup>, the Supreme Council of Information and Communication Technology. Its mission is to create an advanced information-based society, to improve the life of its citizens and to enhance the social and economic development of the country.

## I. THE ROLE OF GOVERNMENTS AND ALL STAKEHOLDERS

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

The establishment of ictQATAR, the Supreme Council of Information and Communication Technology (SCICT) with Decree-Law 36 of 2004 is to regulate the two sectors of Communication and Information Technology and create an advanced Information Community by preparing a suitable environment of infrastructure and a community capable of using communication and information technologies.<sup>8</sup>

ictQATAR's mission is to *connect* people to the technologies that will *enrich* their lives, drive economic development and *inspire* confidence in the future of Qatar and thus enable the community at large to use Information and Communications Technologies (ICT) to improve the quality of life; actively contribute to the social and economic development of the Qatari society and transform it into a knowledge-based and progressive one. It also aims at enhancing knowledge economy; providing cyber services, information and knowledge for all; stimulating other sectors of the society through the use of technology and providing the opportunity for all to participate in the political reform process and economic life through

---

<sup>1</sup> <http://www.doha-2006.com/gis/menuroot/aboutqatar/aboutqatar.aspx.html>

<sup>2</sup> Qatar Tourism Authority.

<sup>3</sup> Source: UNFPA, IMF, UNDP

<sup>4</sup> [www.qnb.com.qa](http://www.qnb.com.qa)

<sup>5</sup> Qatar Economic Review.

<sup>6</sup> Dr Hessa Al Jaber, Secretary-General of ictQATAR statement at the World telecommunication development conferences (WTDC)

<sup>7</sup> [www.ict.gov.qa](http://www.ict.gov.qa)

<sup>8</sup> Emiree Decree.

communications in order realize high rates of economic development. “ictQATAR represents one of the basic pillars of reform, development and modernization in the state of Qatar, where technology plays a vital role as a medium for the establishment of dialogue and communication culture and enhancing the role of the general public in decision making in public affairs.”<sup>9</sup>

ictQATAR was mandated to develop a national strategic vision for Qatar’s ICT sector. The strategy and master plan of ictQATAR derive from Qatar's plan for development, its long-term vision, development targets and initiatives for specific sectors.

### ***The ictQATAR strategy***<sup>10</sup>

Based on international best practices, ictQATAR adopted a comprehensive national ICT strategic plan tailored specifically to the unique circumstances and requirements of the country.

The implementation of the strategy brings together government agencies, ministries and the private sector. The strategy aims at fostering an enabling environment for ICT, increasing readiness, promoting the usage of ICT, monitoring progress and prioritizing initiatives to achieve early results.

### **ictQATAR’s key objectives**

<b>Foster the environment</b>	Develop the market conditions, infrastructure and supporting legal and regulatory frameworks that are most conducive to ICT development.
<b>Increase readiness</b>	Build awareness and reduce barriers to the use of ICT by citizens, businesses and government agencies.
<b>Raise usage</b>	Increase internet usage among citizens, businesses and government agencies, through targeted government policies to provide incentives and support the development of compelling content.
<b>Sustain impact</b>	Continuously gauge progress, measure impact, and refine initiatives accordingly.
<b>Target early results</b>	Prioritize initiatives and secure quick results to sustain momentum and support.

*Source: Information Technology Unit: Background paper of the ITU World telecommunication development conferences (WTDC) 2006*

The ictQATAR strategy consists of 12 programmes:

- 1. State-of-the-art infrastructure** This programme aims to provide broadband connectivity for all, wireless neighborhoods and a world-class National Data Centre to provide the secure storage of data that is essential to the ongoing success of business in the Information Society.
- 2. Innovation and capability building** The objective of this programme is to foster ICT literacy through educational projects. It also aims to stimulate the ICT job market and the development of technology ventures, including research and development. Under the programme, foreign ICT enterprises will be encouraged to open development centers in Qatar.
- 3. Regulatory and legal frameworks** The purpose of this programme was to draft the regulatory and legal frameworks required to govern a competitive market, while ensuring universal access. Also under this programme, laws were developed to protect privacy and prevent cyber crime, and e-commerce regulations will be compiled to enable secure transactions.

---

<sup>9</sup> MOFA.gov.qa

<sup>10</sup> Taken from the Background paper of the ITU World telecommunication development conferences (WTDC), <http://www.itu.int/newsroom/wtdc/2006/background/ict-qatar-feature-story.html>

<b>4. Safety and security</b>	This critically important programme covers the creation of a Computer Emergency Response Team (CERT), with the mission of making Qatar a regional ICT security hub. It also has the task of setting up emergency communications in support of disaster relief operations.
<b>5. Connected citizens</b>	Encouraging the creation of interesting content and attractive online services is the purpose of this programme. It also aims to connect more homes to high-speed internet access and increase the number of computers and other access devices in households.
<b>6. Connected business</b>	This programme will encourage small and medium-sized businesses to invest in information systems, software and internet access. It will also promote the use of ICT to make business processes more efficient.
<b>7. Connected government</b>	To enable the delivery of online data, information and services, this programme seeks the deployment of a government-wide intranet.
<b>8. e-Education</b>	ictQATAR promotes and supports opportunities for the adoption of ICT into education by laying the ground for the development of systems, training of resources and upgrading infrastructure across educational institutions and for the community at large. This will be coupled by the development of standards and guidelines for ICT in education to expedite and facilitate the creation of our knowledge communities.
<b>9. e-Health</b>	The programme will enable healthcare to be delivered to a high standard by providing patients and clinicians with appropriate and timely information by the development of a comprehensive Electronic Health Record. Qatar has embarked on an ambitious program to develop a seamless health information environment. The first step in this journey was the development of an e-Health Strategy which successfully resulted in a 5 year master plan that defined Qatar's E-Health vision.
<b>10. e-Finance</b>	This programme focuses on ensuring the security and integrity of financial transactions, the diversification of delivery channels for financial services, and the deployment of electronic billing and payment systems.
<b>11. e-Tourism and sports</b>	The broadband internet connectivity of hotels, conference centres and other public areas are to be improved under this programme. It will also make high-quality mobile and wireless broadband available in sports facilities, and develop services and applications such as high speed video streaming and web hosting.
<b>12. ICT in other economic sectors</b>	Use of ICT in industries such as oil and gas will be promoted through this programme, as well as the adoption of e-Procurement to streamline supply chain management in day-to-day business and commerce for improved efficiency and effectiveness.

*Source: Information Technology Unit: Background paper of the ITU World telecommunication development conferences (WTDC) 2006*

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

ictQATAR is implementing this strategy, through a participatory partnership approach with major stakeholders in Qatar from the Government, public sector, private sector, and regional/international organizations. Comprehensive governance structures are implemented to manage the different programs of the National ICT strategy.

ictQATAR has strategic alliance agreements and MoU's with several leading countries in the development of ICT such as Singapore and Korea, leading technology and solution providers such as Microsoft, Oracle and others are in current negotiations; in addition to most government sectors and ministries in the State of Qatar. ictQATAR is a member state of the International Telecommunication Union

- ITU and is working closely with the international body on initiatives like the Youth Education Scheme project<sup>11</sup> to close the digital divide. (see section 9 and 11 of this report for further information )

### C. ROLE OF NON GOVERNMENTAL ORGANIZATIONS

ictQATAR is collaborating with NGO's such as Reach Out To Asia - ROTA, (a Qatar based NGO under Qatar Foundation<sup>12</sup>) on initiatives to forward the fostering and promoting ICT usage. One of these areas for collaboration is ictQATAR providing consulting services to ROTA with respect to connecting ROTACONnect to the Knowledge Net program; this will link schools and universities currently operating in Qatar with similar educational institutions in developing Asian countries, with the purpose of sharing information, knowledge and educational resources<sup>13</sup>.

### D. PROGRESS TOWARDS FULFILLMENT OF NATIONAL POLICIES AND STRATEGIES

Within the framework of the strategy, ictQATAR started implementing key initiatives:

#### ***Telecommunications and e-commerce legislation***

The Decree Law 34 of 2006 (Telecommunications Law) gives ictQATAR the full range of legal powers to liberalize and regulate the telecommunications market in Qatar. These powers include licensing of network, services and spectrum, managing the National Spectrum and Numbering Plans and a full range of powers to address dominance and other competition issues. Their authority includes licensing service providers. ictQATAR also has legal authority to consumer protection and dispute resolution. Regulatory Authority (RA) was established to manage the liberalization process through the formulation and implementation of appropriate policies which will promote competition and choice with resulting improvements in services, technological innovation and prices.

As an independent regulator, ictQatar has a transparent process for new providers to compete for customers' business by 2008. The result for businesses and individuals will be better service, lower prices, and new, innovative products and services.

#### ***Q-CERT***

In December, the Qatar Computer Emergency Response Team (Q-CERT<sup>14</sup>) was established through a partnership between ictQATAR and the CERT Coordination Centre of the Carnegie Mellon Software Engineering Institute in the United States. The goals of Q-CERT include: creating an awareness of cyber security in private institutions and among the general public and providing proactive and guided approaches for managing ICT security for civil society.

Q-CERT also assists private and public stakeholders in helping secure the country's ICT infrastructure, and undertakes campaigns to educate the public on their statutory rights.

#### ***Next Generation e-Government strategy***

The e-Government program for Qatar builds on the e-Gov unit achievements thus far and takes them to the next level in alignment with the overarching ICT approach for Qatar. The cornerstones of the next Generation e-Gov strategy are defined to address the development priorities of the ICT vision and are built

---

<sup>11</sup> [http://www.itu.int/ITU-D/success\\_story/story\\_yes.html](http://www.itu.int/ITU-D/success_story/story_yes.html)

<sup>12</sup> <http://www.qf.edu.qa/output/page1816.asp>

<sup>13</sup> <http://www.reachouttoasia.qa/output/Page1.asp>

<sup>14</sup> [www.qcert.org](http://www.qcert.org)

on the two imperatives of a customer-focused and government wide approach. Furthermore, the next generation e-Government program defines initiatives that address areas of action, which fall into four main categories: service-related initiatives, IT-related initiatives, legislation-related initiatives and awareness campaigning related initiatives.

This strategy included setting up a single, government-wide portal, and an electronic payment gateway with public key infrastructure (PKI) to ensure security. Online services currently offered include visa applications, driving licenses, payment of traffic fines, delivery and payment of electricity and water bills, employment services, health cards, residence permits and student registration.

### ***E-Education***

ictQATAR has a nationwide strategy for e-Education that aims at enabling the population to use ICT to improve the quality of life and contribute to the socio-economic development of the country. It focuses on universalizing access to ICT and expanding the pool of resources and opportunities while improving the quality of education to nurture a population ready for competing in the information age. The strategy taps on providing services to the education sector per se but extends to the over all community while addressing the governmental needs and partnering with the corporate private sector.

ictQATAR has also embarked on the development of the guidelines for ICT curriculum to be adopted for the K-12 community, while it continuously coordinates the ICT standards and requirements across all educational institutions and ensure integration of ICT in the professional development of the education professionals.

This will also promote research and experimentation in the world's most advanced technologies and will pilot opportunities for students to adopt, for example, tablet PCs and PDAs as the core base of their learning experience while supporting e-curricula development and infrastructure upgrades. Please see section (7) ICT Application on e-Education.

ictQATAR's "Innovation and Capability Building" program is inline with Qatar's leadership vision as well as the WSIS Action Plan.

This program focuses on developing human capital across all demographic groups in order to reach the highest level of readiness to harness the power and opportunities of ICT. The ultimate aim is to increase the supply of an ICT-skilled workforce.

ictQATAR e-Literacy and Awareness initiatives are designed to build a knowledge society by 2010 by accelerating the growth of the e-Literacy rate. Population reaching the adult age from the Qatari education system will be ICT Literate as a result of the different ICT initiatives targeting the students. New regulations will require expatriate employees to be ICT Literate (e.g. ICDL type certification or skills) before entering the workforce.

### ***Capability Building Program***

A specifically developed program (Builds on e-Citizen program of ECDL-F) to bridge the digital divide by giving citizens the necessary skills to participate online across a broad range of environments which Targets all citizens, regardless of age, gender, or economic activity. ictQATAR has an MOU with ICDL-GCC.

## ***E-Health***

The e-Health Programme commenced in August 2007 with a four-month mobilisation phase. This phase completes some preliminary work prior to phase 1 of the programme and includes a business case and plan for the next three years. The National Health Authority, Hamad Medical Corporation and ictQATAR have signed an MOU in order to deliver the programme in partnership. The programme will enable quality healthcare to be delivered to patients and clinicians in an appropriate and timely manner through the development of a comprehensive Electronic Health Record.

## ***E-Procurement***

In line with international trends and best practice, ictQATAR is working with stakeholders to help introduce a world-class e-Procurement system. Starting with an extensive e-tendering system, the e-Procurement initiative is expected to ensure transparency and efficiency, bringing savings in time and costs for both suppliers and consumers.<sup>15</sup>

## **II. ICT INFRASTRUCTURE**

Through its vision of creating an advanced ICT infrastructure throughout the nation, ictQATAR has begun working as a powerful agent for change in Qatar. It is through establishing solid infrastructure and putting in place carefully considered, long-term plans that all sectors of society will benefit from, and contribute to, the development of a strong, knowledge-based society in Qatar. The latest Global Information Technology Report published by the World Economic Forum in 2007<sup>16</sup> has ranked Qatar as 36 out of 122 in the Network Readiness Index (NRI) moving up three places from 2006<sup>17</sup>. The NRI measures the degree of preparation of a nation to participate in and benefit from ICT developments.

### **A. INFRASTRUCTURE**

Qatar Telecom (Qtel) is currently the exclusive telecommunications provider in Qatar. Its principal activities include local and international fixed telephone, mobile, Internet, data and cable television services.

For the first time, Qatar has a new legislation that opens the telecommunications market to competition ending the current telecommunications monopoly. As a result, citizens will have a choice in their communication provider resulting in improved customer service, better quality, a higher level of innovation, and lower prices. ictQATAR oversees the liberalization process; granting competitive licenses for the provision of network and telecom services.

### **B. INVESTMENTS IN ICT INFRASTRUCTURE AND DEVELOPMENT OF NEW SERVICES**

ictQATAR has drafted telecommunications and e-commerce legal and regulatory frameworks in supporting an enabling and competitive environment for investing in ICT infrastructure and developing new services.

### **C. ICT CONNECTIVITY**

ConnectQatar is a national broadband connectivity program to create a core broadband network which will provide other national programs like e-Health, e-Education and e-Enterprise projects and initiatives with solid and pervasive ICT infrastructure. This program is currently piloting school and hospital networks, and it is planned to gradually encompass other areas, like universities and Small and Medium Enterprises (SMEs).

---

<sup>15</sup> ictQATAR Masterplan.

<sup>16</sup> <http://www.weforum.org/en/initiatives/gcp/Global%20Information%20Technology%20Report/index.htm>

<sup>17</sup> GITR 2006-2007, published by WEF

## ***Electronic Postal Services***

An e-government application was implemented in 2000 and enabled Q-Post to be administered by the Ministry of the Interior for the renewal of Residence Permits electronically. This application allows for the collection and delivery of passports and documents from Q-Post to the Immigration Department and back, and to produce and store all the relevant documentation. Currently more than 25 companies in Qatar are benefiting from this service and the number is increasing daily. Companies can expect to renew their employee's Residents Permits within a period of less than 2 days.

## ***e-Resident***

Since 2003, Q-Post e-Resident is an online extranet service in partnership with the Ministry of Interior and immigration, which allows the general public to re-new their dependents residence Visa and ID Cards. The system includes e-banking, which handles the transfer of funds from Q-Post to the Immigration Department bank account when a residence visa is processed.

## ***iParks***

ictQATAR is working with other government stakeholders such as the Ministry of Municipality and Agricultural Affairs to bring free public internet access to all through the iParks initiative<sup>18</sup>. In addition, ictQATAR and Microsoft have an agreement to make ICT an integral part of Qatar's Society Alliance which targets technology, education and skills, reflecting Qatar's commitment to technology-driven development.

## **D. ICT EQUIPMENT AND SERVICES**

Qatar Telecom principal activities include local and international fixed telephone, mobile, Internet, data and cable television services.

## **E. INTERNET GOVERNANCE**

Qatar is a member of the RIPE Network Coordination Centre (RIPE NCC) which is one of five Regional Internet Registries (RIR) that exist in the world today, providing allocation and registration services that support the operation of the Internet globally. Qatar hosted the Regional RIPE conference in 2006.

Qatar is also a member of many International ICT bodies; International Telecommunication Unit (ITU), Internet Governance Forum (IGF), IMSO, ITSO, ICANN, WSIS, and regional ICT bodies, GCC Secretariat, the League of Arab States, Arabsat, and Arab Network for Regulatory Authorities (ARNET). IctQATAR will also be the Internet Domain Name Registrar for Qatar.

## **F. TRADITIONAL MEDIA**

The mass media in Qatar has been witnessing an unprecedented shift, which resulted in reinforcing its role in society. All Newspapers both English and Arabic and Broadcasting: Radio and Television services are available online in line with building an information society.

Inline with the freedom of expression, censorship of the media was lifted and abolishing the Ministry of Information, whose departments were transformed into independent bodies. In May 1997 Qatar General Broadcasting and Television Corporation was set up. The law establishing it states that the Corporation is a corporate body corporate under the direct authority of the Council of Ministers with an independent budget adjunct to the general budget of the State. The Corporation aims at upholding the mission of audio and audio-visual information in line with the latest scientific developments of the time.

---

<sup>18</sup> <http://www.projectsmiddleeast.com/read.asp?id=2645&CategID=6>

The following are some Qatari media corporations which are playing an active role in the country:

**Qatar Broadcasting Services (QBS)** - was put into practice an exchange program with other Arab countries via the Arab Satellite network (ARABSAT) in 2000-2001.

**Qatar Television (QTV)** - it started its transmission in 1970 in black and white followed by colored transmission in 1974. In 1982 a second English channel was launched.

**Qatar News Agency (QNA)** - it covers the Gulf region and the Arab World as well as many other countries.

**Al Jazeera Satellite Channel (JSC)** - is the first independent Arabic all-news satellite TV channel serving audiences in the world.

**Al Jazeera English** - the first global English language news and current affairs channel with headquarters in the Middle East, launched on 15<sup>th</sup> November 2006 to over 80 million cable and satellite households across the globe with live news feeds online 24/7.

Arab and International Radio Stations Broadcasting from Qatar include: MBC, BBC, Monte Carlo, Abu Dhabi, Al Khaleej Voice Radio.<sup>19</sup>

### III. ACCESS TO INFORMATION AND KNOWLEDGE

#### A. PUBLIC DOMAIN INFORMATION

The Qatar Statistics Authority (QSA) was established by Emiri Decision in June 2007 as a new independent agency, replacing the Planning Council's Statistics Department. It is the national statistics bureau and the official source of all statistical data and information in the State of Qatar. It compiles data reflecting the economic and social development of the State of Qatar. This includes the most recent statistical indicators including Gross Domestic Product Tables, Annual Abstracts, Human Development indicators and other surveys<sup>20</sup>. This information is online for open access.

#### B. ACCESS TO INFORMATION AND PUBLIC INFORMATION

All ministries and government agencies in Qatar have websites with information and services readily available and both English and Arabic for public access. The e-government portal<sup>21</sup> has a list all government agency websites.

#### C. MULTI-PURPOSE COMMUNITY PUBLIC ACCESS POINTS

i-Parks is a new concept in delivering public services in Qatar. I-Parks deliver free Internet connection to Qatari citizens, residents and visitors in the main parks of Doha. The Qatar General Post Office also offers free online services and Internet access to the general public; many cafes also have hot spots in Doha.

#### D. USING DIFFERENT SOFTWARE MODELS

ictQATAR has agreements with Microsoft and Oracle for licensing software in the public sector at affordable costs.

---

<sup>19</sup> Foreign Information Agency, QATAR.

<sup>20</sup> All data is available at <http://www.planning.gov.qa/statistics.html>

<sup>21</sup> <http://www.e.gov.qa/eGovPortal/index.jsp> and [www.mofa.gov.qa](http://www.mofa.gov.qa)

## E. FREE AND OPEN ACCESS TO R SCIENTIFIC KNOWLEDGE

All universities in Qatar have online libraries for open access to knowledge. In addition, the National Council for Culture, Arts and Heritage in Qatar collates, archives and disseminates information. The Council is comprised of the Culture and Arts Department, Public Libraries Department and Museums and Archaeology Department.

## IV. ICT CAPACITY BUILDING

### A. BASIC LITERACY

In the State of Qatar the Adult literacy rate for 2000-2004, for male and females was 89%<sup>22</sup>. Combined gross enrolment ratio for primary, secondary and tertiary schools in 2004/2005 was 91.1%. The Education index for the same period was 0.908<sup>23</sup>. The 2006-2007 Networked Readiness Index, a joint project by INSEAD and the World Economic Forum, which evaluates the relative level of ICT development in 122 countries, ranked Qatar 36<sup>th</sup> (with an index of 4.21)<sup>24</sup>.

### B. ICT IN EDUCATION AND TRAINING

The ICT strategy for e-Education aims at enabling the population to use ICT to improve the quality of life and contribute to the socio-economic development of the country. It focuses on universalizing access to ICT and expanding the pool of resources and opportunities while improving the quality of education to nurture a population ready for competing in the information age. The strategy taps on providing services to the education sector per se but extends to the over all community while addressing the governmental needs and partnering with the corporate private sector.

#### ***School Knowledge Net program:***

This program promotes learning management systems and pedagogical trainings to Independent Schools to improve the learning and teaching through ICT integration.

#### ***Learning Management System:***

Provides teaching and learning tools to improve content delivery, facilitate resource accessibility, enhance communication and expedite administrative tasks and introduces the use of ICT and develops teacher's skills in the teaching process, demonstrates activities and cases of use of ICT in the classroom and trains on development of e-based lesson plans and assessments.

#### ***eSchoolbag project***<sup>25</sup>:

Piloted at Al Wakra Independent School for Girls, initially 200 students from al-Wakra Independent School for Girls received Tablet PCs to be used inside the classrooms where they can learn independently at a more creative level to gain an understanding of the subject matters and to continue interacting with their respective teachers from home. "eSchoolbag is an innovative technological tool that takes students learning to new horizons of collaboration, research, and interaction. eSchoolbag provides learning methodologies that support the objectives of Qatar's national curriculum standards in math, science, and English"<sup>26</sup>. The eSchoolbag package is a digital inking technology Tablet PC i.e. note-taking, sharing and editing information electronically. The package will also include e-contents on science, math, and English which will be used by teachers as ready-to-use materials mapped to the Qatari curriculum standards and allow them to customize and add their own materials to fit their students' needs.

---

<sup>22</sup> [http://www.unicef.org/infobycountry/qatar\\_statistics.html#26](http://www.unicef.org/infobycountry/qatar_statistics.html#26)

<sup>23</sup> [http://www.planning.gov.qa/PDF\\_Files/Human\\_development\\_Report\\_2007/Human\\_development\\_Report\\_2007.pdf](http://www.planning.gov.qa/PDF_Files/Human_development_Report_2007/Human_development_Report_2007.pdf)

<sup>24</sup> <http://www.weforum.org/pdf/gitr/rankings2007.pdf>

<sup>25</sup> ictQATAR brings eSchoolbag to Independent Schools, Media Release, ictQATAR Doha, 12 September 2006

<sup>26</sup> Dr. Mohamed Al-Ansari ICTQATAR's e-Education Manager

### **Global Gateway Qatar:**

Global gateway Qatar provides schools partnership and all teachers and students access to learning and instructional resources. Global gateway will provide schools partnership and all teachers and students access to learning and instructional resources.

Global Gateway Qatar is a learning gateway that provides all teachers and students access to learning and instructional resources, where schools in Qatar will promote themselves and partner with schools around the world through Global Gateway Portal. Teachers can get advice and support from their peer in other international schools such as ones in UK and Singapore. Students and their teachers can run shared projects using this portal and exchange ideas about culture and social development in their countries using e-Languages learning Portal<sup>27</sup>.

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

One of ictQATAR's main strategies is to increase e-literacy rates in Qatar. ictQATAR, and the Supreme Council for Family Affairs signed MoU to promote e-literacy among Qatari women to elevate the role of Qatari women in the society by means of improving their IT-skills. ictQATAR is working with ICDL – GCC to use the ICDL training program as a standard. This project will give the independent school teachers the skills that are needed with the new adoption of technology in the schools:

- **ICDL Training for 2000 Independent School Teachers & 1500 Gov. Staff:** To Increase e-literacy rates for Independent School Teachers and Government Sector segments. This project entails training 1500 Government staff to bring their skills to the need level to be able to work in the new work environment.
- **ICDL for 500 Women 1000 Youth and 5000 Gov Staff:** To Increase e-literacy rates in the Women, Youth, and Government segments. ictQatar has already begun training for 3500 Qatar Government Employees.

#### **D. RESEARCH AND DEVELOPMENT**

The Qatar Science and Technology Park (QSTP<sup>28</sup>) was set up to be an internationally renowned centre for research excellence and commercialization. The QSTP is part of the Qatar Foundation for technology-based companies from around the world for startup companies. The QSTP will operate as a 'free-zone', providing favorable investment incentives and access to world-class international research universities present at the 'Education City'. The QSTP has been successful in attracting leading world-wide business establishments and current tenants include European Aeronautic Defense and Space Company (EADS), ExxonMobil, Gartner Lee, Microsoft, Rolls-Royce, Shell and Total. ictQATAR's QCERT initiative will be part of the incubation hub for R&D. <sup>29</sup> ictQATAR is also collaborating with a renowned research institution to identify the impact of ICT on Education in Qatar.

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

#### **A. COUNTERING MISUSE OF ICT**

The Qatar Computer Emergency Response Team (Q-CERT) is the national computer security incident response team for the State of Qatar which aims to:

- Create awareness of cyber security issues to the private-public institutions and the public;

---

<sup>27</sup> British Council initiative <http://www.globalgateway.org.uk/default.aspx?page=3458>

<sup>28</sup> [www.qstp.org.qa](http://www.qstp.org.qa)

<sup>29</sup> Qatar Economic Review, <http://www.qnb.com.qa> May, 2007

- Provide proactive and guided approaches for managing ICT security to the civil society;
- Assist the private-public stakeholders in managing risks and vulnerabilities against the country's information infrastructures;
- Ensure integrity and confidentiality of data crucial to the wide range of online services that will be offered -Introduce cyber crimes and piracy laws and educate the public of their rights;
- Enforce cyber laws.

In addition, Q-CERT works with organizations that deliver critical services in Qatar to:

- Identify their most important information assets and develop appropriate risk management strategies;
- Prevent attacks by improving the security of the services that they provide; and
- Recognize when they have been attacked, respond quickly, and continue to offer important services despite ever-changing cyber attacks.

Q-CERT accomplishes this by helping Critical Sector Organizations to create and improve their cyber security capability and capacity. Since cyber security is not confined to national boundaries, Q-CERT work with other security teams worldwide to maintain awareness of global trends and respond to international threats.

## B. PRIVACY AND DATA PROTECTION

Qatar is a member and has signed the agreements in the following:

- WIPO Convention, since September 1976.
- Paris Convention (Industrial Property), since July 2000.
- Berne Convention (Literary and Artistic Works), since July 2000.
- Nairobi Treaty (Olympic Symbol), since July 1983.
- WIPO Internet Treaties
- WCT (WIPO Copyright Treaty), since October 2005
- WPPT WIPO Performances and Phonograms Treaty), since October 2005.
- WTO: Member and Signatory to TRIPS Agreement, since January 1996.

## VI. ENABLING ENVIRONMENT

### A. LEGAL AND REGULATORY ENVIRONMENT

#### ***Telecom Deregulation***

*Decree-Law 36 of 2004* established the Supreme Council for Communication and Information Technology (ictQATAR), with the mandate to create a legal and regulatory environment that promotes the development of the communication and information technology sector and contributes to the overall social and economic development in the State of Qatar.

*Decree Law Number 34 of 2006* gives ictQATAR a full range of powers to regulate the telecommunications market in Qatar. Its authority includes licensing service providers and implementing policies that promote competition in the telecommunications sector in Qatar.

ictQATAR is an independent regulator, dedicated to a transparent process and welcome new providers to compete for customers' business by 2008. As the liberalization process moves forward, ictQATAR will continually inform the public about schedules and milestones.

## *Licensing*

On 23 April 2007 ictQATAR published its licensing proposals<sup>30</sup>. The documents published include a public consultation document on licensing policy for the fixed and mobile sectors and a mobile pre-qualification document. It is expected that the licensing process will be completed in 2007 with the benefits of competition being seen in the Qatari telecommunications market during 2008.

## *E-Law*

ictQATAR has drafted an Electronic Transactions Law which will address issues relating to internet transactions and security. The draft legislation will also address issues relating to e-Government. It is expected that the law will be passed in 2007. ictQATAR will also be the Internet Domain Name Registrar for Qatar.

## **VII. ICT APPLICATIONS**

### **A. E-GOVERNMENT**

In 2005, and based on Qatar's vision to provide customer-focused next generation government services, using the Environment-Readiness-Usage framework was used to drive the i-Gov strategy and development priorities with goals to:

- **Improve services to constituents:** citizens and businesses benefit from government services that are more efficient and effective while accessing government information with ease.
- **Deliver internal efficiency:** officials and staff realize performance benefits of streamlined processes and coordinated government-wide efforts
- **Improve governance and transparency:** citizens participate in decision-making processes and better understand basic rights and freedoms

Some of the i-Gov charters that will be available in 2008 will be:

#### *a) Architecture and Standards*

Setup Government-wide IT Architecture framework and Standards for the entire Qatar Government which will be a:

- IT reference architecture for all government agencies;
- Joint IT governance model and roadmap;
- Harmonize government-wide IT standards.

#### *b) Government Portal*

ictQATAR in conjunction with all government ministries and departments is developing a Government Portal for Qatar, a central Qatari government portal (one-stop-shop) for all Government information and services embracing all Government Entities in the country as well as responding to needs of specific user clusters

#### *c) Government Network*

Develop a Government network that provides the Qatari Government with an infrastructure to facilitate the dissemination of information, exchange of documentation and processing of i-Gov services. The Government network is to provide a secure backbone for processing customer information and transactions between relevant Government entities using state of the art technologies.

---

<sup>30</sup> [www.ict.gov.qa/en/PolicyRegulation.aspx](http://www.ict.gov.qa/en/PolicyRegulation.aspx)

d) *Government Resource Planning*

Define strategy, design and implementation of an Enterprise Resource Planning for the Government of Qatar, and set the stage for the deployment of a Government Wide platform to automate and integrate HR and Finance functions to Government Entities.

e) *Contact Center*

A Government Contact Center, providing a customer care team to handle various types of requests, complaints and queries in respect of government information and services (multi-channel approach including mainly Phone, but also email, fax, IVR if needed)

f) *Employment and Recruitment Services*

Develop Online search and application portal for positions within The Public and the Private Sector. The interface will provide abilities to post jobs and review applicants - Develop central Database for vacancies - Develop Notification system for job matches -provide Career planning & advice service

g) *Marketing and Awareness Campaigning*

To develop an i-Gov communication strategy and awareness campaigning plan that includes an education campaign on the i-Gov program and its advantages. Overarching PR and communication strategy to accompany and promote the government services improvement program in Qatar and its implementation milestones.

## B. E-EDUCATION

In September 2005, ictQATAR initiated the first of many projects that translate the objective of the e-Education strategy into tangible activities and results. The Knowledge-Net initiative was launched to pilot the dissemination of ICT as a platform for teaching, learning and communication in preparatory and secondary schools, while building the capacity of the teaching body to adopt ICT in their delivery of information. This endeavor, which entails the development and implementation of a Learning Management System in schools, will be rolled out nation wide as of September 2006. It is the first step to the development of the national portal for education that focuses on enhancing student's skills and awareness in ICT and its application in the knowledge economy, preparing the community for the market demand, and expanding the teaching professionals' capabilities and resources.

In 2007, the SCICT, ictQATAR and the Institute of Administration Development (IAD) has launched the e-Learning Portal<sup>31</sup>, a new online educational tool. The e-Learning Portal will give Government employees, university students and the wider adult community access to 4000, cost-free, courses covering business and professional development, IT and computer software programs. Courses will be taught in Arabic, English or French using innovative multi-media materials with course accreditation from international institutes, such as the American Council on Education (ACE) and the Project Management Institute (PMI)<sup>32</sup>.

## C. E-HEALTH

Qatar has embarked on an ambitious program to develop a seamless health information environment. The comprehensive e-Health Strategy in place is a 5-year master plan which defines Qatar's E-Health vision. The programme will enable healthcare to be delivered to a high standard by providing patients and clinicians with appropriate and timely information by the development of a comprehensive Electronic Health Record. The National Health Authority, Hamad Medical Center and ictQATAR have signed a Memorandum Of Understanding (MoU) in order to deliver the programme in partnership.

---

<sup>31</sup> <http://www.elearning.ictqatar.qa>

<sup>32</sup> [learningonlineinfo.org/2007/05/08/e-learning-in-qatar-ictqatar-and-iad-launch-e-learning-portal/](http://learningonlineinfo.org/2007/05/08/e-learning-in-qatar-ictqatar-and-iad-launch-e-learning-portal/)

The e-Health Programme commenced on 13 August 2007 with a four-month mobilisation phase. This phase completes some preliminary work prior to phase 1 of the programme and includes a business case and plan for the next three years of the programme.

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

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

The National Council for Culture, Arts and Heritage safeguards the national heritage and highlighting its characteristics in addition to deeply researching it. It also:

- Surveys the cultural, artistic, and literary and heritage output and data compilation about efforts of various organizations related to its activities;
- Prepare studies needed for the development of culture, arts and literature as well as safekeeping the national heritage;
- Publishes books, dictionaries and indices as well as compiling documents;
- Participates in international, regional and local cultural and artistic counseling on treaties drafts related to the council's exhibitions, conferences and festivals work and where the State of Qatar is a party;
- Sets quality standards for various intellectual outputs in the state. Provide the right atmosphere to promote the artistic and literary output and diversification its sources;
- Safeguard the national heritage and highlighting its characteristics in addition to deeply researching it;
- Encouraging beaux arts, publication of its prototypes and working for its developing;
- Safekeeping national heritage.<sup>33</sup>

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

ictQATAR is involved in studies pursuing the possibility of building a digital Arabic content industry in QATAR.

### **C. ARABIC DOMAIN NAME SYSTEM - ADNS**

ictQATAR regularly attends Arabic Domain Name meetings held by the Arab League in Cairo, Egypt. The outcome of the meetings are to encourage country members currently involved in pilots to activate the Arabic Domain Name project, and broaden the scope to include other country members. It also encourages service providers to widely apply the pilot using same terms as developed by the technical and administration committees via the website: [www.arab-domains.org](http://www.arab-domains.org), and also to perform a market survey in anticipation of commercial deployment.

The Status of the IDN/ADN test results by ICANN were as follows: the committee welcomed the ICANN initiative in the IDN especially the testing of the Arabic Script and is to request the Arab states to participate in ICANN meeting which will be held In Portugal March 2007. The Outcome of Antalya Conference 2006 related to IDN was to encourage Arab Administrations to apply the resolution # 133 (Appendix # 2) of Delegation of Commissioners Conference (Antalya 2006)

---

<sup>33</sup> Nacional Cultral of Arts Heritage NCAAH - <http://www.nccah.com/english.asp>

The Arab league and UNESCO should welcome in principal, the proposal of coordination between Arab League and UNESCO for Arabic Domain Name. The ADN team recommended to extend the scope of cooperation and to review the mechanism of for the financial and supervision of the project.

The technical ADN committee is to verify the current unified ADN specifications taking in consideration the new controls, which have been developed by IETF, and ICANN<sup>34</sup>.

It was suggested to hold a joint meeting between ADN team and IGF preparatory team (approved by the Executive Office on 21/1/2006) since there are common subjects to discuss in addition of looking to merge them to be one team.

#### *Expected Follow-Up Activities*

- Activate the current pilot for Arabic Domain name in QATAR;
- Apply the outcomes from of Commissioners Conference (Antalya 2006) related to International Domain names.

### **IX. Media**

#### ***Qatar News Agency (QNA)***

QNA was established on 25 May 1975; it covers the Gulf region and the Arab World as well as many other countries. All daily Newspapers in Qatar all have online versions. Newspapers in Qatar include Al Rayah (A), Al Watan(A) ,Gulf Times(E) ,The Peninsula(E), Al Sharq(A), Qatar Tribune(E).

#### ***Sout al Khaleej Radio***

This station was established by a directive issued by the director of Qatar Broadcasting and Television Corporation. The station was the first of the kind in the Middle East to be using digital technology. While working currently on its site [www.soutalkhaleej.fm](http://www.soutalkhaleej.fm), Sout al Khaleej seeks to build up its own electronic library to enrich its audience with information about songs, poems, and other genres of literature.

#### ***Al Jazeera Satellite Channel (JSC)***

Al Jazeera (JSC) is the first independent Arabic all-news satellite TV channel serving audiences in the world. With a humble start of 6-hour transmission a day, JSC went on air on 1 November 1996. By its second anniversary JSC had 24 hours transmission. The channel made its online debut of the Arabic web site of Al Jazeera in January 2001, with a dedicated news portal<sup>35</sup> offering complete transcriptions and audio recordings of all programs broadcast by Al Jazeera. JSC launched the English version of Al Jazeera net in early September 2003. Among other things, JSC airs detailed and comprehensive political and sports news. Economic news is backed up by live online briefing from reporters in international financial centers in London and New York. since 2006 to over 80 million cable and satellite households across the globe. Al Jazeera English provides accurate, impartial and objective news for a global audience from a grass roots level, giving voice to different perspectives from under-reported regions around the world.<sup>36</sup>

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

Qatar hosted the last World Telecommunications Development Conference in 2006; and is continually committed to providing a platform for ICT development dialogue.

---

<sup>34</sup> Outcome of the First Internet Governance Conference, Greece - <http://www.intgovforum.org/>

<sup>35</sup> Al Jazeera - [www.aljazeera.net](http://www.aljazeera.net)

<sup>36</sup> Foreign Information Agency (FIA) - <http://www.qatarinfo.net>

Qatar is a member of International ICT bodies – International Telecommunication Unit (ITU), Internet Governance Forum (IGF), RIPE NCC, IMSO, ITSO, ICANN, and WSIS. Regional ICT bodies include GCC Secretariat, the League of Arab States, Arabsat, and The Arab Network for Regulatory Authorities (ARNET).

A Digital opportunities campaign was launched for the young along with ITU to secure CHF 2 Million to support 250 new scholarships in addition to creating 1000 new internship opportunities in the field of ICTs within the next three years, by 2010.

## **XI. MILLENNIUM DEVELOPMENT GOALS – MDG**

IctQATAR is collaborating with Reach Out To Asia (ROTA) which is a Qatari non-governmental organization (NGO) founded in November 2005. ROTA's mission is to extend assistance into Asia, where it's strategic geographic location gives it a unique opportunity to support its neighboring countries as they overcome developmental difficulties. In addition, more than 60% of Qatar's own expatriate community is of Asian origin, giving ROTA added insight and understanding of the needs and cultural norms of the Asian people<sup>37</sup>.

## **XII. WORLD SUMMIT ON THE INFORMATION SOCIETY - WSIS**

Qatar developed a report on mapping the WSIS POA to the ictQATAR master plan<sup>38</sup>.

### *ITU Youth Scholarship and Internship*

In celebrating World Telecommunication and Information Society Day 2007 and its theme of “Connecting the Young,” Qatar is joining hands with ITU to launch a campaign to secure at least CHF 2 Million to support some 250 new scholarships in addition to creating 1000 new internship opportunities by 2010.

This campaign aims to attract sponsors from the telecommunication/ICT sectors and governments and other stakeholders to support new scholarships and internship opportunities through the ITU Youth Education Scheme (YES), ITU Youth Incentive Scheme (YIS) and ITU Internet Training Centres Internship Programme. Since 2003, 50 YES scholarships have been awarded for a total of CHF 450,000. A further 100 youth internships have been awarded through the Youth Incentive Scheme. The Internet Training Centers Internship Programme is a new initiative.<sup>39</sup>

---

<sup>37</sup> Reach out to Asia initiative - <http://www.ROTA.com>

<sup>38</sup> WSIS QATAR Report 2005.

<sup>39</sup> ITU

## REFERENCES

- Qatar Tourism Authority - <http://www.experienceqatar.com/>
- Qatar Economic Review published by Qatar National Bank  
<http://www.qnb.com.qa/english/publications/QatarEconomicReview.portal?currentpage=QatarEconomicReview>
- Emiree Decree Decree-Law 36 of 2004 establishing ictQATAR, the Supreme Council of Information and Communication Technology
- Ministry of Foreign Affairs Qatar - <http://www.mofa.gov.qa/>
- ictQATAR Master plan 2007-2010 published in 2007
- ITU Report on Qatar published on the ITU website - [www.itu.int](http://www.itu.int)
- GITR 2006-2007, published by WEF - <http://www.weforum.org/pdf/gitr/rankings2007.pdf>
- Foreign Information Agency Qatar - <http://www.qatarinfo.net>
- ICT Indicators compiled from several sources Qatar Telecom ([www.qtel.com.qa](http://www.qtel.com.qa)) Planning Council.2007 (<http://www.planning.gov.qa>)
- [http://www.unicef.org/infobycountry/qatar\\_statistics.html#26](http://www.unicef.org/infobycountry/qatar_statistics.html#26)
- [http://www.planning.gov.qa/PDF\\_Files/Human\\_development\\_Report\\_2007/Human\\_development\\_Report\\_2007.pdf](http://www.planning.gov.qa/PDF_Files/Human_development_Report_2007/Human_development_Report_2007.pdf)
- British Council/ictQATAR initiative global gateway Qatar online portal at <http://www.globalgateway.org/default.aspx?page=3458>
- Qatar Economic Review as above
- Regulation Policy of the Regulatory Authority, ictQATAR - [www.ict.gov.qa/en/PolicyRegulation.aspx](http://www.ict.gov.qa/en/PolicyRegulation.aspx)
- National Cultural of Arts Heritage - <http://www.nccah.com>
- Aljazeera.net - [www.aljazeera.net](http://www.aljazeera.net)
- Reach out to Asia initiative for further - [www.ROTA.com](http://www.ROTA.com)
- Reach out to Asia - <http://www.reachouttoasia.qa/output/Page1.asp>
- WSIS QATAR Report 2005
- ITU - [www.itu.int](http://www.itu.int)