GLOBAL INFORMATION SOCIETY WATCH 2010

Focus on ICTs and environmental sustainability

Global Information Society Watch

2010

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SAUDI ARABIA

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Introduction

Saudi Arabia has set itself two goals regarding climate change and awareness of the issue: ensuring that the preservation, protection and improvement of the environment are at the heart of its basic law, and that this law should be taken as an integral part of overall development planning in all projects in the Kingdom, including industrial, agricultural and architectural initiatives. Although the Saudi authorities are working hard in endorsing awareness of climate change and its related issues, they have failed in the implementation of this law. That said, the use of information and communications technologies (ICTs) has dramatically helped shift climate change awareness levels to new highs, driven by the magnifying effect of climate change on existing development challenges and vulnerabilities.

Saudi Arabia has not launched many practical projects on climate change and very little on electronic waste (e-waste). However, recently the use of ICTs for environmental sustainability has been on the rise. There is growing use of Web 2.0 applications, including videos and blogs, to stimulate community debates over climate change issues and raise their concerns for decision makers and broader audiences. This was most recently highlighted during the devastating floods that occurred in the city of Jeddah in late November 2009.

Despite the global economic slowdown, Saudi Arabia continues to be a lucrative market for technology products and services as it invests to upgrade its ICT and communications infrastructure. In 2010, Saudi ICT spending is forecast to record higher single-digit growth compared with 2009. The Kingdom's ICT market has a number of positive drivers, including a growing population and government projects. That said, internet penetration levels in the country remain at a very low 27.1%.[1]

Policy and legislative context

Article 32 of Saudi Arabia's Basic Law of Governance (issued by Royal Order No. A/9 on 1 March 1992) provides that: "The State shall endeavour to preserve, protect and improve the environment and prevent its pollution."[2]

This law has two relevant principal regulatory controls:

- The General Environment Law[3]

- The Executive Regulation of the General Environment Law in the Kingdom of Saudi Arabia.[4]

In broad terms, the Regulations provide details in respect of each of the provisions of the Environment Law. Consistent with the broad principles of Article 32 of the Basic Law of Governance, the objectives of the Environment Law are to:

- Preserve, protect and develop the environment and protect it from pollution.

- Protect public health from activities and acts that harm the environment.

- Conserve and develop natural resources.

- Include environmental planning as an integral part of overall development planning in all industrial, agricultural, architectural and other areas.

- Raise awareness of environmental issues, strengthen individual and collective feelings of responsibility for preserving and improving the environment, and encourage national voluntary efforts.

The Environment Law, the corresponding regulations and associated standards, along with the international treaties to which the Kingdom is a party, combine to provide a solid legal framework for the regulation of activities related to the environment. However, not much of this is seen to be enacted on the ground, and enforcement of legislation has been limited, if taken into consideration at all.[5]

The role and impact of the private sector regarding environmental sustainability

Global businesses recognise that environmental responsibility is good business. Whether green projects are driven by an organisation's desire to protect the environment, reduce costs, produce eco-friendly goods to meet growing consumer demand, or comply with increasing levels of government regulation, the results can be both good for the environment and good for business. Information technology plays a large role in helping companies become eco-enterprises.

Oracle, one of the leading enterprise software companies in the market, has been enforcing an environmental stance in its applications, operating systems and software. Many entities in Saudi Arabia have used Oracle's systems. Saudi-branded restaurants such as Kudu, which have expanded globally, have been using Oracle E-Business Suite Development since 2005. Since then, Saudi companies have been increasingly using the Oracle E-Business Suite. This includes Al-Jomaih Automotive Company (the sole distributor of Cadillac, Hummer, Saab and Opel; the company's

1   www.internetworldstats.com/me/sa.htm

2   Bureau of Experts, Council of Ministers: www.boe.gov.sa/boe/english.html

3   Issued by Royal Decree No. 34 dated 28/7/1422H, corresponding to 16 October 2001 ("Environment Law").

4   Umm Al-Quda Gazette, issue No. 3964, dated 28/8/1424, corresponding to 24 October 2003 ("Regulations").

5   Al Tamimi & Company (2009) Law Update: Environmental Law in the Kingdom of Saudi Arabia. newsweaver.ie/altamimi/e_article001368618.cfm

range of vehicles also includes Chevrolet and GMC). The Council of Saudi Chambers of Commerce and Industry has used the Oracle eco-friendly technology in the process of legalising documentation online. In 2006, the Ministry of Health announced their intention to implement the Oracle 10g Database across 150 clinical centres in the Kingdom, to centralise their medical data.[6]

Another example of companies in the private sector going green is the multinational company IBM. IBM's corporate policy on environmental affairs was first issued in 1971. It is supported by the company's global environmental management system, which is the key element of the company's efforts to achieve results consistent with environmental leadership. It attempts to ensure that the company is vigilant in protecting the environment across all of its operations worldwide.[7]

IBM Middle East announced the implementation of an energy conservation programme at Dubai Internet City in 2008 to significantly reduce IBM's carbon emissions, in collaboration with TECOM Investments' Sustainable Energy and Environment Division (SEED). The programme was expected to reduce approximately 76 tonnes of carbon emissions annually in the IBM Middle East offices alone.[8]

IBM has also held many events during the past year regarding corporate policies and environmental sustainability. On 27-29 January 2010, it held a dialogue on energy, the environment and sustainability: "The Global Eco-Efficiency Jam".[9] Other events were also held by IBM Middle East, such as "Power your Planet with Smarter Systems" and "Storage for a Smarter Planet".

More recently, *Arabian Business* magazine reported that Saudi Arabia has been interested in harnessing solar energy to drive its growing array of desalination plants. In April of this year, the Kingdom announced a partnership with IBM to pursue this goal. The King Abdulaziz City for Science and Technology (KACST) has teamed up with IBM to study the possibility of building a solar-powered desalination plant in the city of Al Khafji, in the northeast of the country. The facility would feature ultra-high concentrator photovoltaic (UHCPV) technology, jointly developed by IBM and KACST, and could provide 30,000 cubic metres of water per day for over 100,000 people. To date, the most common methods used for seawater desalination are thermal technology and reverse osmosis.[10]

This said, unfortunately most of the multinational companies have launched Middle Eastern initiatives from Dubai in the United Arab Emirates, and not Saudi Arabia. This is mainly due to the fact that international collaborations are common there, given that the more relaxed social laws influence company location decisions. However, the future does hold hope for more collaboration with these companies to help facilitate a greener Kingdom with the establishment of cross-sector law in promoting international trade in the country.

The role and impact of the government

The government authority charged with the responsibility of protecting and preserving the environment is the Meteorology and Environmental Protection Agency (MEPA). The role of MEPA is generally to:

• Review and evaluate the condition of the environment

• Conduct environmental studies

• Document and publish environmental information

• Prepare environment protection laws, standards and regulations

• Promote environmental awareness.

Importantly, one of MEPA's duties is to ensure that all ministries, departments or other government establishments:

• Observe the environmental regulations, standards and criteria

• Adopt necessary procedures to coordinate and cooperate with each authority which is empowered to approve projects which may negatively impact on the environment (here referring to the licensing authorities).

Where MEPA confirms the violation of any environmental criteria and standards, it may require the guilty party to stop the breach and rectify any negative impact within a specified time, and submit a report (in a form approved by MEPA) as to the steps taken to prevent further breaches.

MEPA can force the guilty party to comply with these steps where it fails to do so. The most severe penalties relate to acts involving:

• The introduction, discharge or disposal of hazardous, poisonous or radioactive wastes into the Kingdom, its territorial waters, and exclusive economic zone.

• A failure to comply with the regulations dealing with the handling of such materials.

In these instances, penalties can include imprisonment for up to five years; a fine of up to SAR 500,000 (USD 133,300); the payment of compensation; elimination of the violation by remediation works; and closure of a facility or detention of a vessel for up to 90 days.[11]

Considering the above, not one high-profile case has come to light. It seems implementation of policy is the holdback.

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6   www.oracle.com

7   www.ibm.com/ibm/environment

8   www.arabianbusiness.com/press_releases/detail/12894

9   www.ibm.com/ibm/sa/en/green/ecojam/index.shtml

10 www.greenprophet.com/2010/04/09/19572/saudi-arabia-teams-with-ibm-to-develop-solar-powered-desalination-plant

11 Breaches of other provisions of the Environment Law can expose the guilty party to a fine of up to SAR 10,000, elimination of the violation by remediation works, and closure of the facility for up to 90 days.

The role and impact of civil society

Recently and particularly in the last couple of years, there has been a growth in civil society groups dedicated to environmental sustainability and research regarding a greener Saudi Arabia. In 2008, a public advocacy group, Save Corniche Jeddah, started by lobbying for the safe and hazard-free development of Corniche Jeddah, the country's main seaport in the western region.

Its main aims and objectives were to create public awareness and bring about clear interventions from local authorities by creating a "pictureport" (picture report) petition to submit to His Highness Prince Khalid Al Faisal, Prince of the Makkah Region, to show him the reality of the decaying state of our national attraction. The intention was to submit this petition by the end of March 2008. The report was submitted, but unfortunately the petition did not go through.

After that a second group was founded by the same activists called "Muwatana", which literally means "Citizenship". However, it is also an Arabic acronym made up of the first (and in some cases second) letters of *Musharaka* (Participation), *Walaa* (Allegiance), *Amanah* (Trust), *Tumouh* (Ambition), *Numou* (Growth) and *Tatweer* (Development). Muwatana was a key participating group in the disaster relief initiative regarding humanitarian aid and environmental sustainability after the tragic floods that occurred in Jeddah in November 2009.

Another, more focused environmental group is Naqa'a Environmental Enterprise. The name Naqa'a is an Arabic term for the word "Purity": the group works in pursuit of the purity of air, water and land, in order to save the planet for the coming generations.[12] Naqa'a is the first youth-driven environmental movement. It was started at Dar Al-Hekma College in Jeddah, and has now spread elsewhere across the Kingdom. Naqa'a Environmental Enterprise's vision is to incorporate ecological life standards into social values in society through promoting pioneering green practices.

Research and awareness are major parts of Naqa'a's activities. Spreading environmental awareness will encourage people to take up activities such as recycling, and to understand it as an essential value of the "green life". Naqa'a facilitates recycling for the local community in the city of Jeddah. It is hoped this will become a model for all the cities of the Kingdom. The first project that Naqa'a worked on was called "Smart Recycling".

The issue of climate change is relatively new and civil society activities in this regard appear limited. People working on environmental causes in Saudi Arabia tend to keep things quiet so that they can be done more swiftly away from government bureaucracy and regulations. Nevertheless, increasing awareness of climate change and the growing role of ICTs, and their potential in combating climate change, is starting to be felt.

New trends

In the last few years, Saudi Arabia has witnessed unprecedented growth in demand for internet services, which has inevitably increased awareness of climate change issues. However, government over-bureaucracy and a lack of willingness to implement environmental policy are likely to continue. Highlighted below are some of the top trends that are expected to continue in the coming year:

- The growing use of Web 2.0 technologies, which are serving as integrated hubs for individuals, organisations and their extended networks to connect, communicate, access and share tailored news and information.

- ICTs are being used to generate real-time data to monitor environmental trends. Online initiatives have yet to run out of steam. An example of this was seen during the period when Jeddah experienced floods in late November 2009: a network knowledge system highlighting real-time devastation that could not be hidden by the traditional media, as is usually the case.

- Web 2.0, internet and mobile phones are being used to facilitate community access to locally relevant knowledge, including helping locals to better adapt within a context of extreme floods, or other environmental issues.

Action steps

The discussion so far represents only a small part of a complex and evolving debate over the role of ICTs and the environment in Saudi Arabia. At the same time, issues such as climate change and ICTs constitute a very new field of enquiry where much remains to be explored.

Saudi Arabia's priorities and governmental perspectives need to become a central part of the debate, if the potential of technologies is to contribute to more holistic, inclusive responses to the challenges posed by a changing climate.

The following action steps are required to stimulate debate on climate change in Saudi Arabia:

- The government needs to act on implementing environmental laws that have already been established.

- Environmental laws need to be reviewed and updated regularly.

- Transparency needs to be encouraged through the government publishing a list of environmental offenders. More governmental campaigns are required to build confidence and awareness about ICTs and climate change. ∎

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12 naqaaenterprise.wordpress.com

GLOBAL INFORMATION SOCIETY WATCH 2010

GLOBAL INFORMATION SOCIETY WATCH 2010 investigates the impact that information and communications technologies (ICTs) have on the environment – both good and bad.

Written from a civil society perspective, **GISWatch 2010** covers some 50 countries and six regions, with the key issues of ICTs and environmental sustainability, including climate change response and electronic waste (e-waste), explored in seven expert thematic reports. It also contains an institutional overview and a consideration of green indicators, as well as a mapping section offering a comparative analysis of "green" media spheres on the web.

While supporting the positive role that technology can play in sustaining the environment, many of these reports challenge the perception that ICTs will automatically be a panacea for critical issues such as climate change – and argue that for technology to really benefit everyone, consumption and production patterns have to change. In order to build a sustainable future, it cannot be "business as usual".

GISWatch 2010 is a rallying cry to electronics producers and consumers, policy makers and development organisations to pay urgent attention to the sustainability of the environment. It spells out the impact that the production, consumption and disposal of computers, mobile phones and other technology are having on the earth's natural resources, on political conflict and social rights, and the massive global carbon footprint produced.

GISWatch 2010 is the fourth in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

GISWatch is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

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2010 Report
www.GISWatch.org