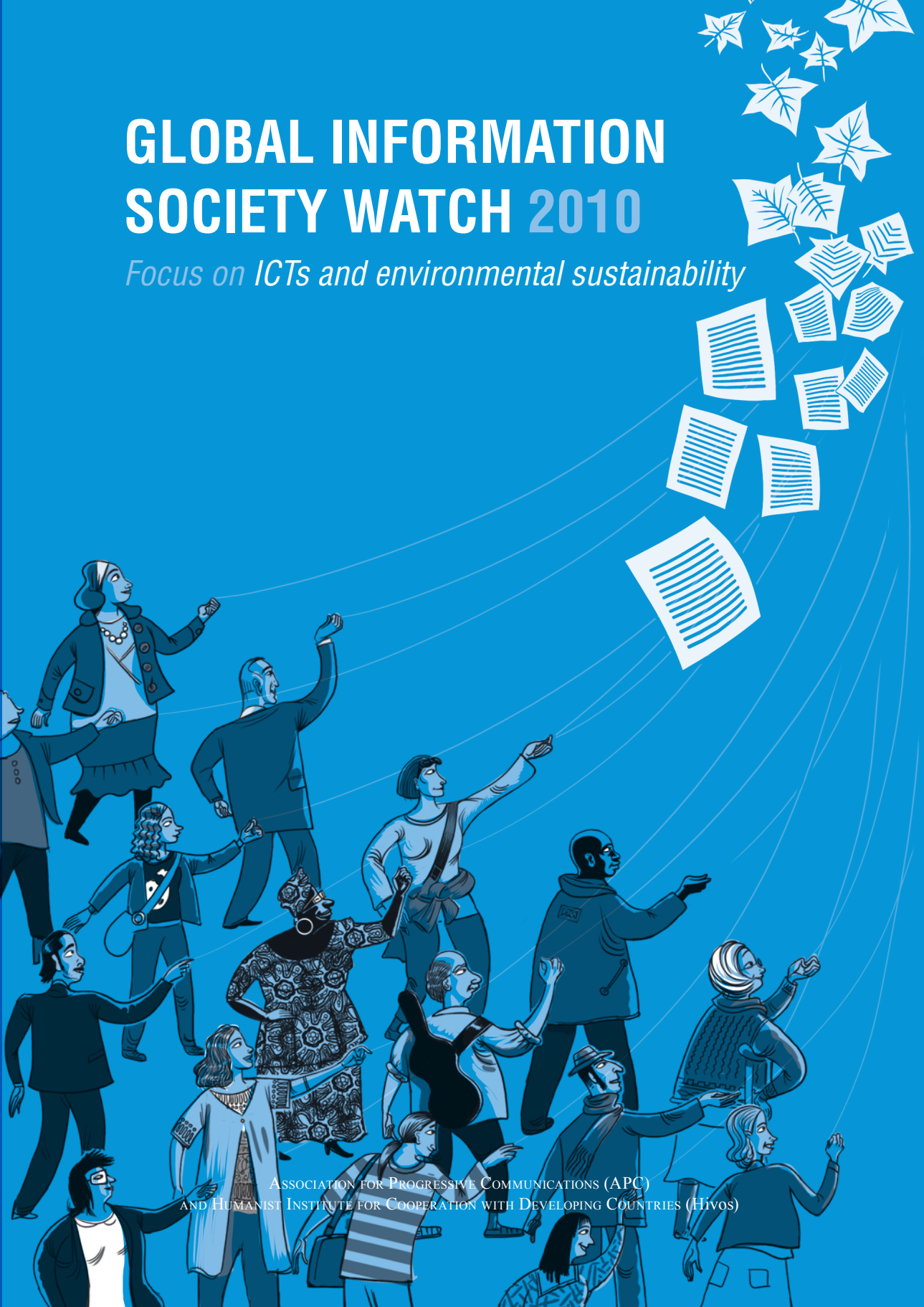
GLOBAL INFORMATION SOCIETY WATCH 2010

Focus on ICTs and environmental sustainability



Association for Progressive Communications (APC)
and Humanist Institute for Cooperation with Developing Countries (Hivos)

Global Information Society Watch

2010

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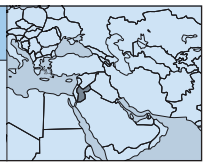

Introduction

Scientists and civil society were among the first to promote environmental awareness in Jordan. The Royal Society for Conservation of Nature (RSCN) was founded in 1963 as the first NGO dealing with the matter. In 1988, the Jordan Environment Society (JES) led the efforts to get the protection of the environment in Jordan onto the national agenda. These efforts as well as a scarcity of natural resources were the driving forces in passing the first Environmental Protection Act (EPA) in 2003 and establishing the Ministry of Environment (MoE) as a separate ministry in Jordan. The MoE, along with various environmental societies, have played a vital role in protecting the environment and preventing pollution in the country.

But challenges remain. The ministry estimates that environmental degradation costs Jordan 4% off its gross national product.[1] An environmental think tank report,[2] released on 24 November 2009 by the Lebanon-based Arab Forum for Environment and Development (AFED), criticised the absence of data on climate change in most Arab countries. Other experts agreed. "I hope that the United Arab Emirates' first remote sensing satellite (DubaiSat-1) will help gather the information and data needed to help Arab researchers studying climate change," said engineer Khalil Konsul, president of the Jordanian Astronomical Society. Moreover, "ICTs (information and communications technologies) and climate change", "green ICTs" and "e-waste" (electronic waste) are new expressions in the Middle East, including Jordan – at least at the grassroots level.

Policy and legislative context

One year following the conclusion of the Earth Summit that was held in Brazil in 1992, Jordan established the first incarnation of the MoE. Principle 10 of the Rio Declaration stipulates that:

> Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available.

Following years of neglect, denial and lack of data, Jordan realised, through a concerted effort backed by global momentum, that climate change is a clear and imminent danger to the environment and development in Jordan.[3] The Kingdom is expected to witness a 1-2°C increase in temperatures by 2030-2050. This will result in diminishing aquifers and surface water bodies, the reduction of vegetation cover, and the transformation of semi-arid lands, some 80% of the country's total area, into arid deserts.[4]

Jordan is a signatory state to many international environmental treaties. King Abdullah of Jordan stressed in a speech that was delivered by Prince Hamzah at the recent UN Climate Change Conference in Copenhagen that "Jordan is a committed partner in the international efforts to confront climate change." The King cited some of Jordan's goals in this regard, such as efforts to increase renewable energy's contribution to the Kingdom's energy mix to 10% by 2020. Jordan joined the Kyoto Protocol's Clean Development Mechanism (CDM) and has started to reap the benefits. It has approved five programmes as part of the CDM to contribute to the reduction of around 3.5 million tonnes of CO_2 annually and to generate EUR 100 million over the next five years.[5] King Abdullah also called for greater reduction in gas emissions, building on the targets set in the Kyoto Protocol.[6]

The MoE in cooperation with the United Nations Development Programme (UNDP) is currently developing Jordan's Second National Communication on Climate Change. The MoE has also launched a USD 4.3 million programme to develop the Kingdom's adaptation to climate change and sustain its Millennium Development Goal (MDG) achievements. The programme will assist Jordan in addressing strategic issues, including health and water, by ensuring a sustainable and improved water supply in light of a water shortage blamed on climate change. So far, climate change has caused a 30% reduction in the Kingdom's surface water resources. The shrinking Dead Sea is one powerful example of the impact of climate change in the country. The three-year programme will be implemented by the World Health Organisation (WHO), UNESCO, UNDP and Food and Agriculture Organization (FAO).[7]

As far as e-waste goes, Jordan has not developed an e-waste management programme. There is also no authentic statistical data available on the quantity of this waste.

1 Ministry of Environment (2010) *Status of Environment in Jordan 2010*, Government of Jordan, Amman, p. 190.

2 www.arabenvironment.net/archive/2009/12/986436.html

3 www.arabenvironment.net/archive/2009/12/993098.html

4 www.mdgfund.org/story/programtodevelopJordanadaptation

5 www.arabenvironment.net/archive/2009/12/993098.html

6 www.petra.gov.jo 18 December 2009.

7 www.mdgfund.org/story/programtodevelopJordanadaptation

However, the MoE is currently developing programmes on how to dispose of electrical and electronic waste.[8]

Dealing with e-waste

The EPA prohibits the introduction of any hazardous wastes into Jordan. Any person who violates this article shall be punished by a fine of not less than USD 30,000 or by imprisonment for not less than three years and not more than fifteen years, or both. MoE considers refurbished computers and old batteries as hazardous wastes (the latter they store in special cell dumps south of the capital Amman). However, the import of second-hand computers is allowed, and the Royal Rangers, the country's environmental police, do not pay much attention to e-waste violators.

Although the MoE has a position on e-waste, the EPA does not specifically deal with it. The absence of regulations hampers efforts in Jordan that try to look at e-waste management, and exposes local communities to health risks caused by toxic chemicals. The issue of e-waste is not promoted adequately even amongst environmentalists. There is a lack of social responsibility and environmental awareness on this issue, and statistics are not available on how much e-waste is present in the Kingdom.

How to get rid of old computers? I asked engineer Yazan Abdallat,[9] IT manager at *Alarab Alyawm*, the daily newspaper that is a big consumer of computers. He told me that they sell them to small computer companies which use them for spare parts, and that these shops resell the remaining parts as plastic or aluminium for recycling purposes. Some said they throw the remaining parts in the nearest trash container. Abdallat suggests that big consumers of computers like banks must keep track of their computers and be careful how they dispose of them because of sensitive information they might have on their hard drives. MoE can use serial numbers to track where these devices will end up. Some Jordanian companies import used computers from the US and they reuse some parts of them to make one good computer.

"Old mobile batteries are polluters," Abdallat says. To demonstrate his point he conducted a small experiment. He opened an old mobile battery and put it in a glass basin with a fish. It was shocking to see that the fish died within fifteen minutes.

Shopkeepers who replace mobile batteries do not have any idea about the risks of old batteries. Many of them told me that they do not have any regulation on battery disposal. Some of them use old mobiles as spare parts. Unused parts are disposed randomly with other wastes, which can cause serious damage to the environment and human health.

E-waste is mostly treated in one or more of the following manners:

- Storage: In most cases, old electronics are stored in the cellars of houses. This is not the best solution since delaying the disposal of the e-waste reduces the chances of reusing it effectively.
- Landfills and burning waste: When mixed with household waste, e-waste is most likely to always end up in one of the twenty dumps in Jordan.

Many NGOs have taken several initiatives to protect the environment. Land and Human to Advocate Progress (LHAP) initiated a project to raise public awareness on e-waste in cooperation with the MoE, the Chamber of Commerce and some companies selling electrical appliances. The project includes an environmental competition that aims to raise public awareness on e-waste. The competition prizes include participating in a conference on e-waste in Lebanon, a TV set, refrigerator and multi-purpose rechargeable batteries. LHAP Director Ziyad Alawneh said that the project reached 200 schools in the Kingdom, and targeted 7,500 students and teachers.[10]

Law schools at Jordanian universities do not pay much attention to the importance of teaching environmental law. Global environmental law expert Bob Percival at University of Maryland School of Law[11] was invited to Jordan in late 2009 to assist in developing an environmental law curriculum. In order to help jump-start the teaching of environmental law, it has been decided that an environmental law problem will be the subject for the annual Jordanian National Law School Moot Court competition. The competition has become extremely popular among the Jordanian law schools, and competition is fierce.

New trends and needs

On the legislative level, Jordan needs to implement existing laws and introduce new legislation that would tackle these new problems. Hamad Uthman, a Jordanian environmental journalist, believes that Jordan can pass new policies in two categories: first, polluter pays and second, pollution prevention pays.[12] Uthman suggests taxation measures in implementing these principles. Eco-taxes on mobile operators would be one example of the polluter-pays principle.

Uthman also suggests tax exemptions as an incentive for computer companies who collect old PCs and refurbish and upgrade them for educational and charitable institutions in rural areas.

The sun rises in Jordan 365 days a year, which means it can introduce solar energy to produce energy for electronic products. Jordan has a solar potential of more than

8 www.alarabalyawm.net 21 April 2010.

9 Interview 17 May 2010.

10 www.alarabalyawm.net 13 May 2010.

11 globalenvironmentallaw.blogspot.com/2009/12/jordan-trip-copenhagen-conference-by.html

12 Interview 9 May 2010.

2,000 solar kilowatts/hour per square metre per year – one of the highest in the world. The country recently launched a USD 400-million project to generate electricity from solar power in the southern city of Ma'an.[13] The project, "Shams Ma'an" is expected to produce 100 megawatts of electricity annually by 2012. The project is considered a big step to lessen Jordan's dependence on foreign fossil fuel, as it imported 96% of its energy needs last year.

Jordan produces only 7% of total energy from renewable resources. It seeks to raise renewable energy resources' contribution to the overall energy mix by 10% by 2020.

Using energy generated by solar power cells installed on citizens' rooftops can reduce their electricity bill. In this way citizens have the motivation to get involved in a national effort, and the government can step in by providing long-term loans to people interested in the idea.[14]

The new building of the Dutch embassy in Jordan, which was opened late May, is an eco-friendly building.[15] The building is the first to receive a prestigious international certificate for green homes, and is the first sustainable building of all Dutch embassies in the world.

Action steps

- Passing legislation that forces manufacturers to include Arabic manuals with any electronic device and mentioning its environmental hazards and how to dispose of it safely.
- Asking big computer companies to take back used PCs for recycling.
- Encouraging environmental NGOs to act as collection centres for old PCs and IT accessories and to collect used PCs for recycling.
- Banning the entry of e-waste into Jordan.
- Introducing eco-taxes on mobile operators.
- Incorporating climate change and e-waste into human rights issues.
- Introducing e-waste hazards in IT curricula.
- Establishing alternative energy and renewable technology research centres in one or more of eighteen universities in the Kingdom.
- Encouraging people to use solar energy. ■

13 www.petranews.gov.jo/nepras/2010/May/19/13000.htm

14 www.jordanwatch.net/arabic/archive/2008/2/475036.html

15 www.addustour.com 20 May 2010.

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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