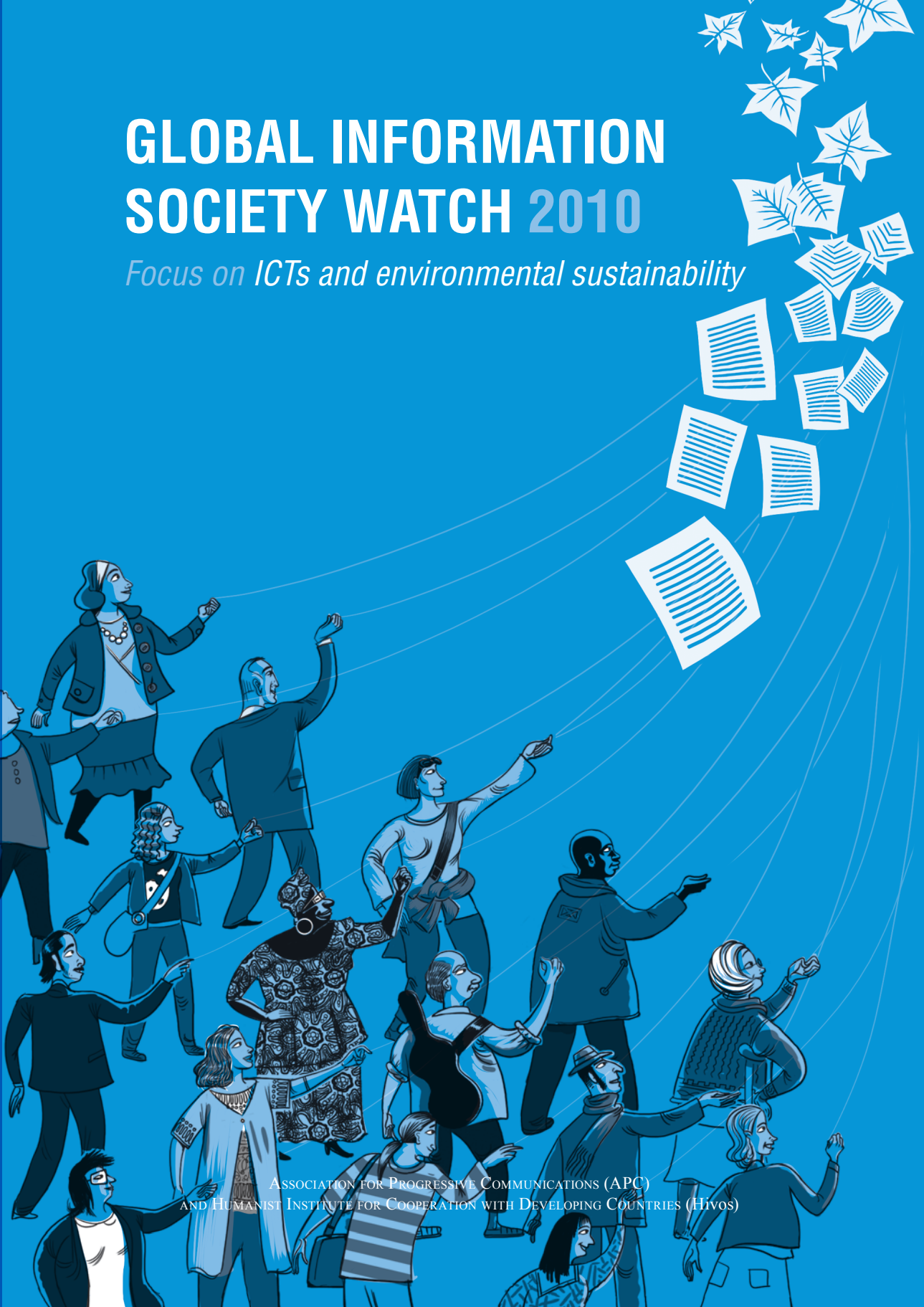
GLOBAL INFORMATION SOCIETY WATCH 2010

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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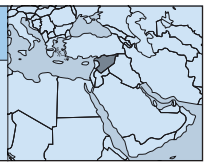

Introduction

In the past decade, Syria has adopted a proactive approach towards environmental challenges and the preservation of natural resources. The Ministry of State for Environmental Affairs was established in 2009 to lead the country's environmental programmes and initiatives. Previously, the government's environmental efforts were delegated to a special entity called the General Authority for Environmental Affairs. The establishment of the ministry is a strong signal of the government's acknowledgement of the environmental challenges facing the country, and the urgent need for action in this regard.

The environmental problem is complex and multifaceted. Issues that need to be tackled range from solid waste management to hazardous waste, electronic waste (e-waste), recycling and climate change, to name a few. This reality challenges environmental efforts, particularly in resource-constrained regions. Countries in such regions are forced into prioritising their interventions and initiatives and focusing their investments on the most pressing issues. This seems to be the case in Syria, where despite the significant efforts being undertaken in the environmental sustainability field, important areas such as e-waste are not yet tackled properly.

Policy and legislative context

The most significant legislation in Syria with regards to environmental sustainability is Law No. 50, enacted in 2002. This legislation provides an extensive framework for tackling environmental challenges, including supporting research activities, raising awareness, setting standards and developing indicators, monitoring, assessing trends in challenges such as desertification and devising appropriate countermeasures to environmental degradation. It also established the General Authority for Environmental Affairs, a governmental entity with a mandate to formulate environmental public policy and develop a national strategy for environmental protection. Another entity, the Environmental Protection Council, which consists of seventeen cabinet members and six union leaders, has been formed to approve and, if necessary, amend the strategies and policies developed by the ministry. The legislation also established the Environment Support and Protection Fund, which was intended to fund activities and projects related to environmental protection in the country.

Unfortunately, despite its rather wide coverage, the legislation does not specifically address issues related to information and communications technologies (ICTs) or e-waste. It does, however, include provisions to tackle the management of solid and dangerous waste.

In 2007, the Syrian government, in partnership with the United Nations Development Programme (UNDP), launched a project to support the development of the Initial National Communication (INC) of Syria that would be presented to the United Nations Framework Convention on Climate Change (UNFCCC)[1] (it is worth noting that Syria is a signatory to the UNFCCC and the Kyoto Protocol). A report published by the project in March 2010 states that the total CO_2 emissions in the country have increased from 52.66 teragrams (Tg) in 1994 to 79.07 Tg in 2005. These figures are significantly lower than those of the EU and other highly developed countries. However, as the country is affected by climate changing factors from other regions, the report predicts the warming in the country in 2041 will be higher than the global average. The report concludes with several action steps to mitigate the impact of these environmental trends.

E-waste: An emerging challenge

Syrians have not yet engaged in recycling as an important part of waste management. Despite the fact that non-organic waste per capita in the country is much lower than its levels in developed nations, accelerating economic growth and household consumption indicate that waste management will soon become a critical issue. This is particularly relevant to e-waste. The decreasing prices of electronic equipment resulting in their greater affordability, combined with growing penetration of technology, has meant that increasing quantities of equipment are being imported into the country. According to the International Telecommunication Union (ITU), the number of mobile phone subscribers in Syria exceeded 7,056,200 by the end of 2009.[2] The ITU's statistics also put the number of internet users in the country at 3,565,000. Given the continuously shrinking life span of electronic devices, including mobile phones, laptop computers, MP3 players and other gadgets, the challenge of e-waste can be easily anticipated.

In a study by Allam and Inauen,[3] the researchers reported that no major e-waste activities are taking place in Syria. However, the Basel Convention Regional Centre for the Arab States (BCRC) and the Syrian government have engaged in a pilot project to identify and quantify hazardous waste

1 www.undp.org.sy/index.php/our-work/environment-and-energy-/79-enabling-activities-for-the-preparation-of-syrias-initial-national-communication-to-the-unfccc-qpims-3525-nc-eaq

2 www.itu.int

3 Allam, H. and Inauen, A. (2009) *E-Waste Management Practices in the Arab Region*, Centre for Environment and Development for the Arab Region (CEDARE), Cairo. ewasteguide.info/files/Allam_2009_R'09.pdf

inventories in the country.[4] While this project does not focus primarily on e-waste, it intends to study the issue as part of the larger hazardous waste problem.

Careful examination of the e-waste problem in Syria offers some interesting insight. Apparently, the vast majority of Syrians do not dispose of their old or obsolete electronic gadgets by throwing them away. A sizable market for second-hand devices and spare parts operates in the country, and most devices find their way into one form of reuse or another. This may be attributed to the high cost of electronic devices compared to the average income, which also has another effect in increasing the life span of electronic devices. These trends tend to delay the emergence of e-waste as a pressing problem, but certainly do not eliminate it.

The challenges that need to be addressed by the government in the area of environmental sustainability in general, and in e-waste in particular, are varied and significant. The fact that the government has engaged in a pilot project to develop inventories of hazardous waste in the country is a commendable start. The country's environmental sustainability legislation (Law No. 50, 2002) requires the development of waste classification schemes, and appropriate methods for the treatment of different types of waste. Recently, the Ministry of State for Environmental Affairs launched several initiatives to translate these requirements into practice. For example, an action plan was formulated to engage with the private sector in developing the required infrastructure for recycling. Another initiative for "green industry" was recently started in collaboration with the United Nations Environment Programme (UNEP).

While these initiatives and activities will undoubtedly improve the waste management situation in Syria, they need to be supplemented with action that engages the larger community. Important areas of action include awareness raising, reporting and data collection, and promoting the virtual delivery of goods.

Using ICTs to address environmental challenges

ICTs provide a viable and effective way to communicate with large audiences. Moreover, emerging Web 2.0 technologies enable higher levels of user interaction and engagement, and are highly conducive to community building and mobilisation. As a result, these technologies offer significant leverage to support the efforts of the government and civil society in addressing environmental challenges.

At the first level of engagement, the internet and mobile phones can be utilised as mediums to raise awareness about environmental issues and the impact of the careless disposal of electronic equipment. Several campaigns have successfully capitalised on the rising penetration of mobile phones to broadcast messages on topics ranging from health to road safety. The Syrian Environment Protection Society[5] started to embrace the internet in its outreach activities, and launched a website that encourages visitors to send their feedback and contribute their articles and opinions.

Another area in which ICTs hold great potential is reporting and data collection. These activities are very labour intensive, and require the deployment of substantial resources. ICTs can provide a channel for "crowdsourcing" that would enable citizens to report on environmental issues or incidents. This channel can also be used to collect information needed for the development of environmental indicators, or in estimating and evaluating the volumes of e-waste generated in the country.

ICTs can also be exploited to reduce the overall volume of waste by encouraging and supporting the transition from physical to virtual goods delivery. This is particularly relevant in Syria where the virtual goods (such as electronic books and MP3 music downloads) consumer culture is still weak. The government can adopt favourable policies for the creation and distribution of virtual goods, and at the same time discourage consumption of their physical alternatives, to accelerate this transition. If implemented successfully, this will result in large volumes of physical items being substituted by electronic versions, reducing the amount of obsolete physical items going into landfills and waste management facilities.

The internet can also provide an effective medium to share information about climate change and e-waste with the general public, such as indicators, trends and analyses. Making such information available stimulates research activity around available data, and informs and supports the mobilisation efforts of organisations and individuals concerned about these issues. The data that will result from projects like those being implemented in cooperation with the BCRC or UNEP would provide a great starting point.

An important policy consideration in managing e-waste is the introduction of a levy or tax that applies to products which contain hazardous materials to fund the safe disposal or recycling of these products at the end of their life span. Such a fee should be applied to products imported into the country, as well as those produced domestically, as most of the electronic products in use are imported. The proceeds of this fee can be added to the Environment Support and Protection Fund, to be invested later in safe disposal and recycling projects. The government can also stimulate positive behaviour among the general public by providing incentives for the use of more environmentally friendly electronic devices. This model has been implemented by many countries and regions around the world, with highly encouraging results. Further reinforcement of this policy can be demonstrated by introducing specific provisions for the safe disposal of e-waste and the use of environmentally friendly technologies into the public sector's procurement regulations.

New trends

Environmental sustainability is increasingly becoming an important concern for the government and the general public. As more emphasis is placed on the problem globally, and

4 www.bcrc-egypt.org/downloads/PSC5/progress.pdf

5 www.seps-sy.org

more media coverage is dedicated to climate change and e-waste issues, the public awareness of their importance and urgency is growing. The number of articles and news stories related to environmental sustainability published in the country increased by an order of magnitude over the past year, and the problem seems to be attracting attention in the different forums of public discourse.

Many initiatives and organisations are being launched to tackle the formidable challenges of environmental sustainability. Because Syria is not considered a significant contributor to global warming, the country cannot do much in this regard. This means that the resources and local interventions should be focused on other challenges, including solid waste management, desertification, water safety, hazardous waste and e-waste.

The emerging trends in higher technology adoption and increased affordability of electronic devices indicate that the problem of e-waste, though not considered a major issue currently, will soon become a significant challenge. The massive quantities of cheap, low-quality electronics available in the local market (imported mainly from China) suggest that the country has an urgent need for a comprehensive policy and enforcement framework that places appropriate checks and balances on market growth to avert a looming environmental and public health disaster.

Actions steps

- Urgently introduce legislation and policy measures that specifically address the issue of e-waste.
- Adopt a zero-tolerance policy towards the enforcement of environmental legislation, particularly with regards to hazardous waste.
- Introduce environmentally friendly taxes or levies on consumer and industrial electronic equipment to fund safe disposal at the end of the equipment's life cycle.
- Facilitate collaboration in research, advocacy and the media to tackle e-waste and climate change problems by sharing information about the environmental status in the country.
- Adopt internationally accepted indicators for e-waste and climate change and establish the required processes to collect and disseminate information for these indicators. ■

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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www.GISWatch.org

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