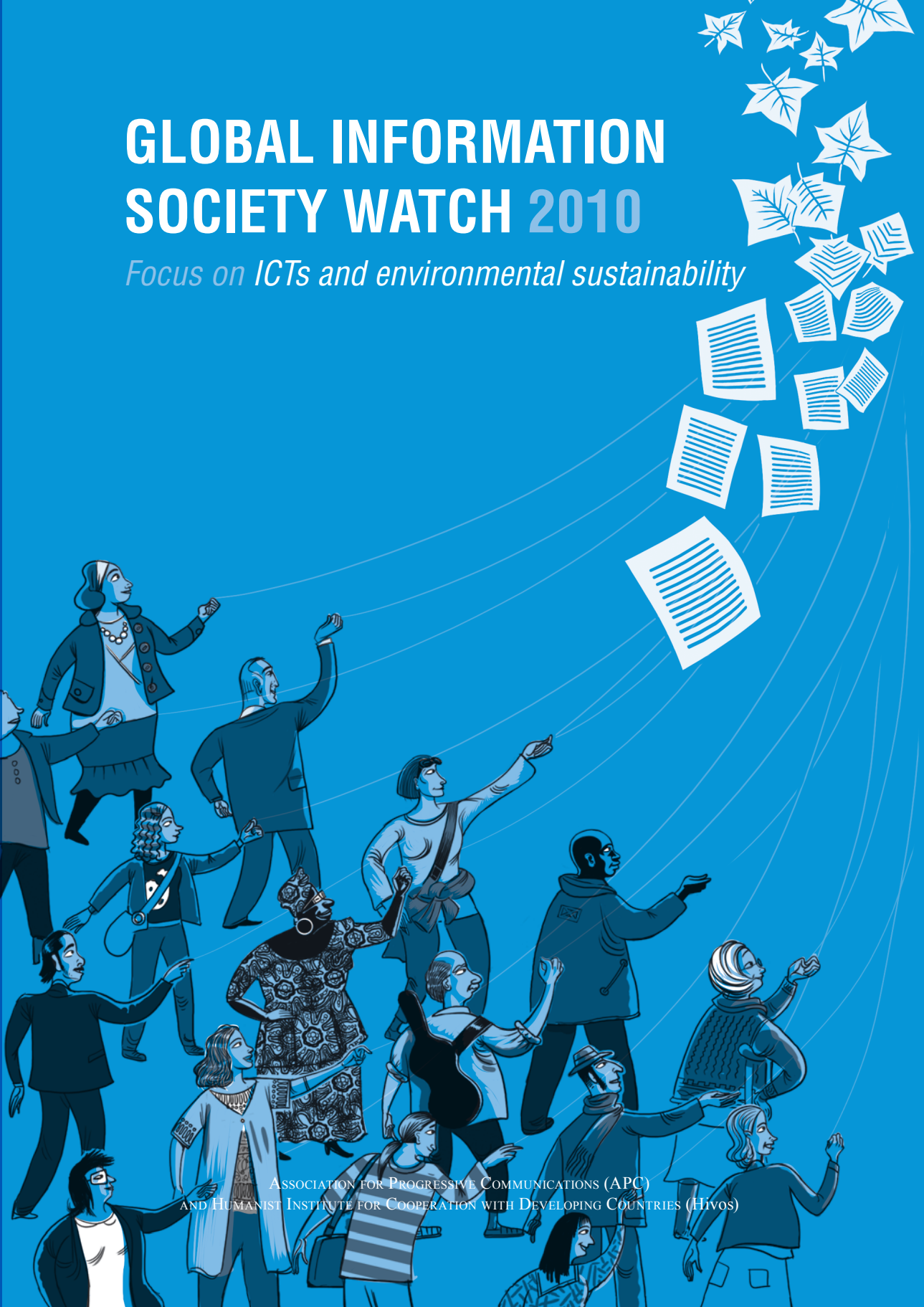
GLOBAL INFORMATION SOCIETY WATCH 2010

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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KENYA

Kenya ICT Action Network (KICTANet)
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Introduction

Kenya is on the verge on an information and communications technology (ICT) revolution as it works towards becoming part of the global information society. With this, the volume of ICT equipment continues to grow rapidly. National initiatives such as digital villages that provide e-government services, including telemedicine, e-education and e-agriculture, among others, will increase the acquisition and use of computers, mobile phones and television sets, as well as applications and programmes that will provide access to many. At the same time, computers and the internet have become common in businesses in all sectors, and mobile phones in particular are an essential part of citizens' daily lives.

Against this rapid growth is the high rate of obsolescence of ICT equipment due to technological change. As equipment reaches its end of life, disposal challenges arise. Poorly disposed electronic waste (e-waste) can result in severe health and environmental hazards due to highly toxic substances, such as lead and mercury. A 2009 United Nations Environment Programme (UNEP) report, *Recycling – From E-waste to Resources*,[1] notes that Kenya faces serious environmental and health problems due to increasing hazardous waste from electronic devices. The report lists old mobile phones, photographic and music devices, desktop and laptop computers, printers, pagers, refrigerators, toys and televisions as the main sources of e-waste. There is a need to dispose of large quantities of computers and mobile phones and to arrange for their safe disposal, which includes the right to health and safety measures for workers and the public in general.

Policy and legislative context

Kenya has no national climate change policy. One of the main challenges is that policies, laws and regulations addressing climate change are fragmented, and found in various sectoral laws, and are not well coordinated. There is also no policy or regulation on e-waste, although Kenya is a signatory of both Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and the Bamako Convention on the Ban of the Import Into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa.

At the national level we see a mix of laws and regulations addressing waste, and some recent references to e-waste, but there is no coordinating framework. The Environmental Management Co-ordination Act (EMCA, 1999) defines hazardous waste, pollutants and pollution, but it does not address specific aspects of waste (such as e-waste). The National Environmental Management Authority (NEMA), responsible for implementation of all policies and regulations relating to the environment, also has no specific regulations focusing on e-waste.

At the local level, the 1962 Public Health Act places responsibility for waste management at the local authority level.[2] But there too, there are no e-waste programmes.

In contrast, the Kenya ICT policy (2006) contains a clause on e-waste, which makes the appropriate recycling and disposal facilities for e-waste part of the requirements for renewal of communications licences.[3] The Communications Commission of Kenya (CCK)[4] has incorporated this requirement into current legislation. The Kenya Bureau of Standards runs the pre-export verification of conformity programme that aims to minimise the national risk of unsafe and substandard goods entering into the country. The Bureau is expected to conduct inspections of second-hand computers entering the country to ensure that they are utilisable.

It is clear from this that the government has recognised the challenges posed by e-waste. However, the level of preparedness from a policy and regulatory perspective is still quite low, particularly when it comes to actual waste management practices.

E-waste on the ground

Kenya's informal dumping sites are home to ICT equipment containing hazardous material and lethal toxins. The largest is in Nairobi's Dandora estate, receiving over 4,000 tonnes of garbage daily. With unregulated disposal, most waste is either left to rot in the open air or burnt as the best and only means of disposing of it. This includes any e-waste which finds its way to the dump, releasing toxic chemicals and metals into the air and ground. An e-waste baseline study conducted by the Kenya ICT Action Network (KICTANet) in 2008 notes that e-waste recycling is mainly conducted informally with no regulation in place to safeguard the health of those who dismantle the electronic equipment, nor the environment.[5]

Kenya is also one of the countries caught up in a web of global e-waste dumping, which has gone unnoticed due to the lack of legislation and regulation governing the importation of non-functional, non-reusable and obsolete electronics. The Kenya Bureau of Standards' pre-export

1 www.unep.org/PDF/PressReleases/E-Waste_publication_screen_FINALVERSION-sml.pdf

2 Government of Kenya (1962) Public Health Act.

3 Government of Kenya (2006) Kenya ICT Policy.

4 www.cck.go.ke

5 Kenya ICT Action Network (KICTANet) (2008) *E-waste Management in Kenya: A baseline study*. www.kictanet.or.ke

verification of conformity programme is proving inadequate in addressing the complexity of the problem. Given the positive economic implications of recycling e-waste in developed countries and Kenya's attempts to bridge the digital divide, second-hand ICT equipment continues to find its way to different parts of the country. At first view, such shipments are based on good intentions: refurbished equipment from developed countries is expected to be useful in the developing world. However, very rapidly changing standards and the rapid evolution of technologies mean that even the best of these shipments are not always useful, and are too often used as an excuse to dump unwanted goods. The reality is that even with the Basel Convention prohibiting hazardous waste transfer internationally, hundreds of containers filled with over-used ICT equipment and accessories continue to be shipped to Kenya because of the perceived high demand for such low-cost goods.

The Basel Action Network in its October 2005 report, *The Digital Dump: Exporting Re-use and Abuse to Africa*,[6] found that e-waste is entering African port cities such as Lagos, Mombasa, Dar es Salaam and Cairo in shiploads. Kenya continues to accept container loads of e-waste disguised as donations each month from developed countries. A UNEP report notes that this trend is likely to cause long-term and costly environmental damage.

In European countries, the "producer pays" principle of the Waste Electrical and Electronic Equipment (WEEE) Directive compels producers of electrical equipment to fund the end-of-life recycling of equipment. However, no such legislation exists in Kenya. Although the Ministry for Environment and Natural Resources (MENR) has developed a concept paper on e-waste which may result in policy, and the CCK has incorporated e-waste management into its licence conditions, there is much more that can be done to develop a policy framework for e-waste management.

Kenya's disposal options for e-waste seem to vary widely depending on the user. Once consumers have used a mobile phone or computer to its end of life, KICTANet research has shown that they store the equipment at their homes or offices, sell it as second-hand equipment, donate it to schools, or give it to neighbours or friends who could otherwise not afford such a device. According to the KICTANet study, only a few users take their old equipment for recycling or disassembling to reuse some parts. The study further notes that with an estimated 1,640 tonnes of new equipment entering the market each year and 1,210.4 tonnes disposed of on the second-hand market, the outflow to refurbishers and collectors is much lower than new purchases. This suggests that it is possible that a sizable stock is held back by consumers who have a low awareness about pollution from the informal disposal and recycling currently practiced.

Government departments and agencies are compelled by the Public Procurement and Disposal Act of 2005 to bond ICT equipment and invite competitive tenders for disposal. This is a slow and cumbersome process, resulting in government holding huge amounts of obsolete ICT equipment – and it seems to place a very low priority on the process.

There has in the past been limited industry responsibility for e-waste management. Industry players will often donate their old ICT equipment to charities or organisations, while some dump their waste in repair shops, which means repair shops have huge quantities of unusable computers, mobile phones and TV sets with no knowledge or capacity on how to handle the waste. A few industry players are beginning to build responsible practices into the way they do business, and to take responsibility for their impact on the environment. For example, Safaricom supports an e-waste management initiative by Computer for Schools Kenya (CFSK), while Hewlett-Packard supported KICTANet's e-waste study, which is currently being used to inform policy discussions. However, the number of private sector players involved in e-waste management is very limited and there is a need for them to step up their engagement, through corporate social responsibility, to ensure protection of the environment in which they operate.

With the vacuum created by a lack of policy and regulation, and a lack of proactive industry engagement, civil society organisations have tended to fill the gaps in e-waste management. Organisations like CFSK have established e-waste management initiatives to handle electronic recycling needs. The project dismantles and separates electronic waste, with reusable parts like plastics and aluminium being sold to the informal market. There is no specialised equipment available to deal with the rest of the hazardous toxic material, so CFSK is currently exporting this to countries with appropriate facilities, mainly in Europe and Asia. This lack of processing capacity also means CFSK and others are unable to extract the precious metals and other high-value waste that has become a profitable business in many developed parts of the world.

Other civil society organisations that are involved in waste management include the Kenya National Cleaner Production Centre, Kayole Environmental Management Association (KEMA), Practical Action, and World Vision International.

The KICTANet study notes that there are economic opportunities in e-waste management in the form of creating employment via informal recycling businesses. Refurbishment of old ICT equipment has also become an area of business for civil society organisations like CFSK, who refurbish computers for schools around the country. Small and medium entrepreneurs could be encouraged and supported to tap into e-waste recycling utilising sustainable business models.

A policy and regulatory framework to address e-waste management is required to regulate the collection, disposal and handling process, as well as to license key actors. Capacity and skills development initiatives should also be undertaken.

6 www.ban.org/Library/TheDigitalDump.pdf

E-waste management must be a multi-stakeholder process, which includes the participation of civil society, industry, government and local communities.

New trends

The Kenyan government has allocated land to CFSK to build a National Refurbishment and Technical Services Centre as a flagship centre for e-waste recycling, and is also supporting it to create regional centres hosted by various institutions in each of Kenya's eight provinces. Industry players like Safaricom have been supporting the initiative. Nokia and Sony Ericsson as well as local service providers have introduced policies for "taking back" end-of-life equipment, demonstrating a willingness to contribute to e-waste management. However, more private sector players need to get involved.

In June 2008, the Kenyan government introduced a 25% tax on all imported used computers, aimed at preventing dumping and reducing e-waste.

In June 2012, the target date for digital television transition, Kenya's broadcasting industry will see the end of the analogue era for television. The transition is likely to add to the e-waste problem, particularly given the replacement of network and broadcasting equipment used by the television channels and service providers. Due to cost issues, the percentage of the population expected to buy new digital televisions will probably not be high. Most will enjoy digital broadcasts using their old sets and converter boxes. However, the transition can be expected to cause some dumping of old sets within the country, as well as developed countries dumping in Kenya, and this will be a trend that could continue over time.

Kenya is also beginning to address the related issue of climate change. The Kenyan Ministry of Environment observed that one of the main challenges to developing a coherent national policy is the fragmentation of current policies, laws and regulations that address climate change in different sectors. The ministry is now working towards developing a comprehensive climate change policy that will include a National Climate Change Response Investment Framework. This will hopefully have specific provisions for dealing with e-waste as it can impact on climate change, particularly when considering production and the final stages of disposal or recycling (such as incineration, or smelting). ICT advocacy groups such as KICTANet will lobby for the inclusion of such provisions.

Action steps

Plotting the way forward for advocacy, the following is necessary:

- Create awareness among the public, including an appeal for resistance to various practices that lead to environmental damage.
- Speed up development of policy and regulation on e-waste management that take into account the consequences of dumping, extended manufacturer and user responsibility, safe disposal procedures, business opportunities, etc.
- Urge companies to embrace extended producer responsibility, minimising the life cycle impacts of their products, and encourage them to take back and recycle their products.
- Expose irresponsible electronics companies to create public pressure to help green the industry.
- Enhance capacity building in pre-processing processes such as the manual dismantling of e-waste.
- Create awareness of the economic advantages for engaging in sustainable business models for waste management.
- Include e-waste provisions in national policy on climate change. ■

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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