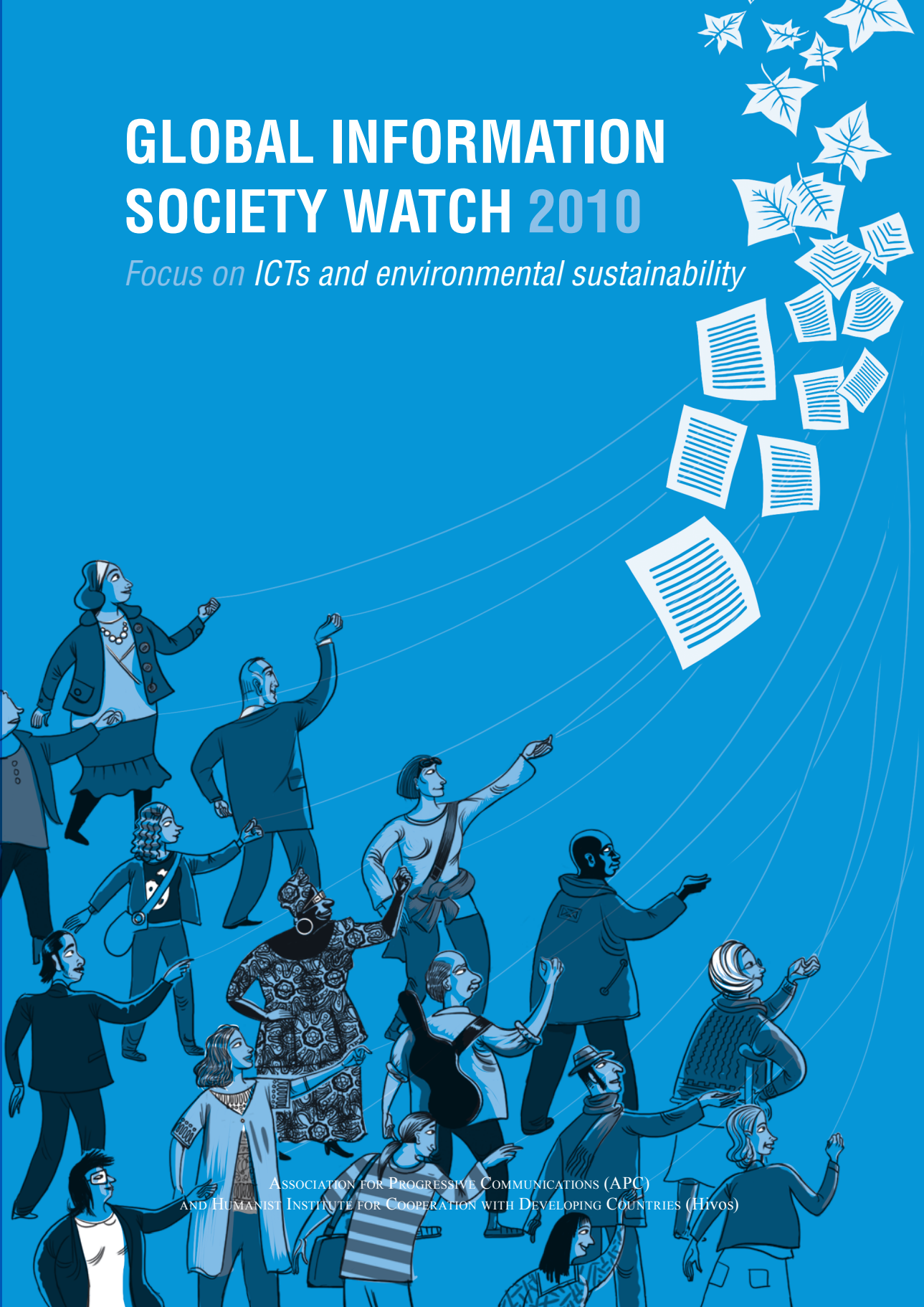
GLOBAL INFORMATION SOCIETY WATCH 2010

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

Steering committee
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Anriette Esterhuysen (APC)
Loe Schout (Hivos)

Coordinating committee
Karen Banks (APC)
Monique Doppert (Hivos)
Karen Higgs (APC)

Project coordinator
Karen Banks

Editor
Alan Finlay

Assistant editor
Lori Nordstrom

Publication production
Karen Higgs

Graphic design
MONOCROMO
info@monocromo.com.uy
Phone: +598 2 400 1685

Cover illustration
Matías Bervejillo

Proofreading
Stephanie Biscomb, Lori Nordstrom, Álvaro Queiruga

Financial partners
Humanist Institute for Cooperation with Developing Countries (Hivos)
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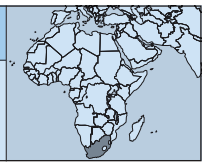

Introduction

South Africa is a middle-income country characterised by extensive inequality, which is significant to the issues of both climate change and electronic waste (e-waste). South Africa is frequently referred to as a country with both "first" and "third" world characteristics – it has international business centres with high-tech facilities next to townships without basic services – and faces the challenges of both high rates of consumption and the pressure for cheap energy. The carbon impact of these demands is exacerbated by the country's dependence on coal, making it one of the most carbon-intensive economies in the world. Business and government are the core information and communications technology (ICT) users in South Africa, but there is also a substantial use of computers in homes and schools. E-waste has been recycled to some extent for decades, but there is a growing awareness of the need for a more organised, comprehensive and environmentally sound management of discarded technology. South Africa has yet to see e-waste dumping in the same extent noted in other African countries, yet there remains concern about the as yet unknown scope and scale of e-waste imports. Further, a recent incident in which imports were tracked and isolated at a South African port in May 2010, and still remain in the country, raises concerns about the South African government's capacity – and indeed international capacity – to adequately respond to the challenge. South Africa has an extensive history of active civil society; environmental NGOs have raised the issues of climate change and e-waste with government and the public in various ways over the years. However, the country has yet to draft e-waste-specific legislation.

Policy and legislative environment

Although South Africa does not have policies on either climate change or e-waste, these issues are being brought to the attention of government. The national government commendably developed both a National Climate Change Response Strategy and a Long-Term Mitigation Scenarios plan, and promised to pass a climate change policy by the end of 2010. As one of the BASIC nations (the middle-income countries of Brazil, South Africa, India and China), it plays a leadership role internationally regarding climate change. Despite these promising efforts, major concerns remain. South Africa's dependence on coal is highly problematic, and there are limited investments in renewable energies. There are contradictions in the government's approach towards economic growth and the steps required to reduce emissions, evident in the controversy over a World Bank loan approved in April 2010 to build a new coal station. Further, the use of questionable, technocratic and unproven means for reducing emissions suggests that the national energy supplier, Eskom, and the coal industry still hold significant influence over the formation of climate change responses.

E-waste legislation also has not been passed. South Africa is party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. However, it has not supported the Basel Ban Amendment, nor has it signed the Bamako Convention on the Ban of the Import Into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa. The National Environmental Management: Waste Act of 2008 contains no mention of e-waste, nor does the current draft of the National Waste Management Strategy. However, the e-Waste Association of South Africa (eWASA), an industry-led body dedicated to improve e-waste management in the country, is working with various government officials with the aim of developing regulations.

E-waste: Working together, working apart

E-waste must be seen within a broader context – a legacy of international environmental injustice and a history of consistent and repeated underestimation by regulators of the risk of pollutants and toxic chemicals from industrial processes and wastes. This underestimation of risk has been true for asbestos, lead, mercury, the pesticide DDT, dioxins and ozone depleting chlorofluorocarbons (CFCs) and now e-waste. Often it has taken decades for regulators to acknowledge these risks and take proper regulatory action, including banning or restricting the use of these substances. The role of NGOs is to look at emerging evidence and to warn about these dangers long before this point occurs, as well as to critique processes which might hinder precautionary regulation.

Formal e-waste recycling has been occurring in South Africa since 1992, with Desco, located in Johannesburg, one of the first recyclers of e-waste. Desco recycles all kinds of e-waste, and its efforts range from the manual dismantling of waste, to the granulation of circuit boards to enable the extraction of precious metals. A small refurbishing centre is also situated at its recycling lot in Gauteng. Several large e-waste recyclers now operate in major economic regions in the country, such as Johannesburg and Durban. Additionally, the manual recycling of e-waste occurs at different levels along the waste-collection chain, including by informal collectors (waste pickers), who separate electronics into their component parts, bringing only the valuable components to the recyclers; semi-formal traders in e-waste, who collect from dumps and other scrap points; and scrap dealers.

South Africa has an extensive mining sector, and metals from e-waste enter into the processing and refining facilities set up for mining, with gold smelters seeing the economic potential of recycling e-waste, as gold production in the country decreases. It has been claimed that the strict regulation of gold is one of the reasons why there is limited informal smelting of e-waste in order to retrieve precious metals. There have been no verifiable reports of the use of chemical baths to access precious metals, although the burning of cables to extract the copper does occur. Despite some efforts to study e-waste recycling, the quantities and environmental consequences remain rather elusive. Although there are relevant national regulations regarding environmental and health and safety concerns, scrap recyclers have not historically been regulated as businesses dealing with hazardous wastes. An unquantified though notable amount of e-waste is exported for processing, both to Europe and Asia. One study estimated that when it comes to PCs and e-waste from PCs, as much PC e-waste is exported by weight, as is imported in the form of second-hand computers.

Challenges in collaboration

E-waste began to gain more attention nationally in 2004, as awareness grew about its role as a potential resource that should be kept in South Africa and as a potential danger that needed to be more effectively managed. In Cape Town, engineer Gerry Newson began exploring options for recycling and refurbishment, working with the now-defunct organisation Footprints and attempting to expand the scale and scope of these initial efforts, while local activists and consultants, supported by international researchers from the Swiss organisation Empa (Swiss Federal Laboratories for Materials Testing and Research) conducted an initial baseline study into e-waste (in Gauteng), and began to engage local and national government and business stakeholders. South Africa became one of three countries in Empa's first e-waste knowledge-sharing programme (together with China and India). It is worth bearing in mind that e-waste had effectively been on the civil society agenda for some time. NGOs such as Community Education Computer Society had been reusing old technology for use in schools and non-profit organisations for years, and numerous activists had been questioning the dumping of second-hand computers in Africa, and were calling for recycling fees collected in Europe to be paid to the countries of destination.

After extensive consultation, it was decided that there should be an association to coordinate e-waste practice in South Africa (advocacy efforts supported by Empa had already been working loosely under the eWASA title, although there was no formal association). There were contrasting visions of what the role of this body should be, who should be included and how it should be run, but the current form is an industry-led association. While this is a positive step in the sense of showing industry leadership for addressing a problem, it simultaneously raises some concerns around process. eWASA is currently headed by a local businessman (a former president of the IT Association) although it is intended to eventually be led by an executive board which has yet to be filled. This board is to be made up of manufacturers, currently all of large multinational firms. For the ultimate decision-making capacity of such a body to be in the hands of multinational producers raises concerns – and the absence of key stakeholders, such as ICT civil society groups, from eWASA forums is notable, both in terms of eWASA's current failure to engage them properly, and suggestions of *their* indifference to helping to develop an e-waste management system in the country. eWASA has three regional bodies, and its members include manufacturers, recyclers and refurbishers, as well as environmental NGOs who found out about the process through various contacts rather than invitation. They had to request to participate and currently pay membership fees.

eWASA has developed standards, audits and certifies its members, and provides them with information and assistance in order to improve practices. While these are positive steps, the development of standards by an industry-led body must not replace government regulation, and additionally these standards must undergo participatory public processes if they are to be adopted into legislation. Attention must be paid to ensure that small and informal recyclers who may be unable to pay membership fees or the costs of auditing, and are currently absent from the process, are not marginalised. eWASA also seeks to establish an advanced recycling fee, another positive step which will help subsidise comprehensive care for end-of-life materials. How this fee is used must be determined through a transparent process, and support for small and/or community-run operations should be given priority.

Parallel to this project, Empa and Hewlett-Packard developed a pilot project in Cape Town. The project was a collaboration of small businesses under an umbrella not-for-profit organisation. Since then, the individual components have been incorporated into existing businesses which now form the e-Waste Alliance. The alliance is made up of businesses, which perform three functions: refurbishing, dismantling for recycling, and waste-to-art. Businesses within the alliance agree regional boundaries for collection, exchange materials at a fair cost, and ensure that components are used for their highest potential function (i.e. what can be refurbished gets sent to a refurbisher). Members are expected to maintain environmental and health and safety practices, and resolve conflicts through the structure of the alliance. The alliance hopes to spread this model throughout the country and region. The project exemplifies some of the challenges with developing community- or worker-owned businesses in the e-waste industry, for despite initial support, the new businesses were taken over by larger, existing entities. There are concerns regarding why these projects failed in their intended state, and how support could be provided for such operations. However, the broader structure represents a promising way for improving e-waste management.

Illegal imports slip through

While these efforts are being made to improve practices among formal recyclers, there are parallel but currently under-emphasised concerns regarding the import of e-waste. Information regarding the import of e-waste is scarce everywhere, and this is true in South Africa as well. The difficulty of tracking e-waste internationally and the possibility of import as second-hand goods makes this form of waste particularly challenging to trace. However, watchdog environmental NGOs have been able to track some illegal exports. In May 2009, the Basel Action Network (BAN) informed authorities in South Africa that e-waste collected in the United States by a charity was on its way to South Africa for recycling. They also informed their BAN partner in South Africa, groundWork. groundWork then informed eWASA, the South African Revenue Service and the Department of Environmental Affairs. Despite this knowledge weeks ahead of time, and informing local authorities and the provincial environmental department, the shipment of e-waste still entered Durban harbour later that month. Uncertainty about whose responsibility it was to handle the situation resulted in no action being taken, and the shipment was sent hundred of miles inland to Johannesburg. Reports suggest that the shipment was to be retained and inspected there, where it remains under government oversight.

This story is significant because it shows the challenges not just of finding e-waste imports, but of the bureaucratic shortcomings which have so far prevented the return of the shipment *even when discovered.* It illustrates gaps in the ability of the South African government to enforce their obligations under the Basel Convention and the need to consider not just policy but implementation.

Due to legal ambiguities regarding the ownership of the e-waste, it so far has not been returned to the United States. While it is significant that through the efforts of NGOs this shipment was caught, it raises questions as to how frequently these imports are occurring and slip through unnoticed by NGOs and officials. In short, South Africa is currently vulnerable to e-waste imports because there are no internal policies, and insufficient regulatory oversight to mitigate future imports of e-waste. It also suggests that there is little strength in the industry association at this point (given that it is still finding its feet), and that it is not yet playing the strong coordination role that it should in order to mitigate the illegal dumping of waste.

New trends

New trends regarding e-waste regulation are likely dependent upon the actions of eWASA, and its relationship to government and civil society. The adoption of standards to provide further details for regulating e-waste management in the country is a positive step, but there is a need for caution regarding the translation of eWASA standards into government regulation without prior public participation. Industry self-regulation and creation of its own standards creates an uncomfortable precedent.

The Cape Town model for collaborative alliances is attempting to be spread to other parts of the country, such as Durban. These efforts will likely suggest whether such a model can be successfully implemented elsewhere. In terms of the ownership of e-waste projects as discussed above, a pilot project run by the provincial environmental department in KwaZulu-Natal province is soon to be turned over to private hands, but it is not yet decided whether it will become community owned or given to an established recycling company.

Another potential new trend relates to efforts for organising amongst waste pickers. With support from the NGO groundWork, groups from different landfills are seeking to have a greater role in local and national decision-making processes. Although various stakeholders have noted the role of waste pickers in current e-waste management, waste pickers have so far not been widely consulted, in part because they are reportedly a rather inaccessible group. Waste pickers and local site entrepreneurs were engaged as part of a municipal programme to stimulate entrepreneurial activities at waste collection points in Johannesburg, and engagement with waste pickers does happen at the local government level in various cases. Nevertheless, efforts of waste pickers in organising into more visible bodies might enhance their ability to inform decision makers about their role and the kinds of policies they would like to see.

Finally, eWASA is working towards establishing an African e-waste forum. Although the idea is still in its infancy, there is the potential for further regional cooperation through such a forum. Such a forum should build on existing civil society regional relationships, be transparent and ensure the inclusion of diverse stakeholders early in the process.

Action steps

- An evaluation of the current extent of contamination, and remediation of contaminated sites.
- Caution in the recycling process, such as the recycling of plastics with brominated flame retardants.
- The production and dissemination of information on health impacts for workers and the public.
- Internal country monitoring of e-waste, where it comes from and where it goes, and more broadly the harmonisation of tariff codes to better enable this monitoring.
- The adoption of a national take-back scheme, such as that being developed by eWASA, with appropriate subsidies from industry.
- National level support for the Basel Amendment and Bamako Convention.
- Debate around the import of regional e-waste.
- Ensuring environmentally unsound technologies and products that are prohibited or controlled in developed countries are not imported.
- An increase in public awareness campaigns regarding means of safe disposal and the location of safe drop-off sites. ■

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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