

GLOBAL INFORMATION SOCIETY WATCH 2010

Focus on ICTs and environmental sustainability



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS (APC)
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Introduction

The relationship between information and communications technologies (ICTs) and the environment is a new issue that is emerging in international¹ and European Union (EU)² forums as a response to growing concern about climate change. Meanwhile, in Romanian public discourse, debates on *information technology* and the *environment* have followed separate threads. This report is an attempt to bridge the gap between the two areas.

Policy and legislative context

Romania has taken significant steps since the fall of the Communist regime in terms of aligning to European and international policy-making practices (1989–2009). Accession to the EU in 2007 imposed stricter standards and tighter regulations in all areas, including in fields like environmental protection and ICTs. Key ICT and environmental legislation was adopted during the EU accession process, in the form of national adaptations of EU directives.

According to expert assessment, there is coherent climate change legislation, a strategy and a detailed implementation plan in place in Romania, although it is lagging behind EU standards in terms of implementation. Climate change policy documents do not mention ICTs as tools of mitigation or adaptation, but refer to them implicitly as tools for risk management. Waste management has also been tightly regulated and largely publicised in Romania, but ICT-related electronic waste (e-waste) has attracted little public attention compared to large household appliances, research has shown.³

As far as the Romanian ICT legislative environment is concerned, the alignment process to EU regulations has been quick and efficient, due to a strong business drive, and to consistent funding targeted at knowledge transfer (e.g. e-government, internet rights, data security and telecentre management issues). The United States Agency for International Development (USAID) funded and assisted the Romanian Initiative for Information Technology, a knowledge transfer project targeting policy makers, legal system

actors and telecentre developers, and the World Bank funded the eRomania Gateway initiative in order to empower knowledge society developers.⁴

However, there are several gaps concerning the overall Romanian policy-making process: a lack of legislative stability, misconduct of political elites, poor institutional capacity, a low level of public awareness on policy-making issues, and a low level of public participation in decision-making processes. Power and inequality are culturally embedded in Romanian society: people often take leaders' decisions for granted⁵ and consider participation as risk taking.

Climate change policy

A climate change and e-waste policy scan completed in September 2009 highlighted the main laws and regulations issued by the Romanian Ministry of Environment after the fall of the Communist regime (1989).⁶ In terms of climate change policy, in 1992 Romania signed the UN Framework Convention on Climate Change (UNFCCC) and ratified it in 1994 (Law No. 24/1994). The Kyoto Protocol was adopted by Romania in 2001 (Law No. 3/2001). In 2005 the Romanian government adopted a decision approving the National Strategy on Climate Change for the 2005-2007 period (Government Decision No. 645/2005). Later that year a Strategic Plan for Climate Change 2005-2007 was adopted (Government Decision No. 1877/2005).

After EU accession (2007), a Ministerial Order (1170/2008) adopted the Guide on Adaptation to Climate Change Effects, with action steps and recommendations due to be revised every second year. The Guide has proposed several measures:

- Multi-annual research programme on adaptation to climate change effects
- Creation of a scientific interdisciplinary group in order to post-evaluate the research studies
- Updating of climate change scenarios in Romania by the National Administration of Meteorology
- Organisation of a national information campaign
- Integration of climate change coping strategies into environmental legislation and policy making.

1 Maclean, D. and St. Arnaud, B. (2008) *ICTs, Innovation and the Challenge of Climate Change*, International Institute for Sustainable Development, p. 3. www.iisd.org/pdf/2008/ict_innovation_climate.pdf

2 Forge, S., Blackman, C., Bohlin, E. and Cave, M. (2009) *A Green Knowledge Society: An ICT policy agenda to 2015 for Europe's future knowledge society*, SCF Associates Ltd., p. 2. ec.europa.eu/...society/europel.../green_knowledge_society.pdf

3 Daedalus, M. B. (2009) *Echipamente electronice si electrice existente in gospodarii si atitudinea populatiei fata de echipamentele electronice uzate*, Ecotic. www.ecotic.ro

4 Bakó, R. (2007) Romania, in Finlay, A. (ed.) *Global Information Society Watch 2007*, p. 195. www.giswatch.org/gisw2007/en/download

5 Heidrich, B. (2001) *Szervezeti kultúra és interkulturális menedzsment*, Human Telex Consulting, Budapest, p. 85.

6 Bakó, R. and Péter, P. (2009) *GreeningIT Policy Mapping for Romania*, Association for Progressive Communications.

Other national measures related to climate change have been Government Decision No. 780/2006, establishing a scheme for greenhouse gas emission allowance trading, and Emergency Governmental Ordinance No. 152/2005, concerning integrated pollution prevention and control.

Waste management policy

Waste management policy in Romania has two major documents: the National Strategy on Waste Management, and the National Plan on Waste Management. The first is a 50-page strategic document analysing policy issues in waste management, while the latter is more detailed and addresses operational issues. Both documents were elaborated in 2003 for the period 2003-2013. Although the Romanian waste management system follows EU standards in terms of policies and targets, it does not meet EU results: for example, the EU target for e-waste is 4 kg/person/year, while Romania collects less than 0.07 kg/person, environmental experts stated.

There are special legal provisions for e-waste and used batteries, but their implementation and enforcement have a long way to go. Good practices are visible though: there is a monthly national campaign for collecting e-waste, encouraging people to put old fridges, TV sets, washing machines and computers outside their houses, which the local waste management company then collects. Due to this campaign, the average amount collected in 2009 was almost 2% of the national target, experts estimated. E-waste associations (the most visible being Ecotic) had an online media campaign in 2009 to advertise their services. In May-June 2010 a public awareness campaign, funded by e-waste management companies, called for photos and videos of e-waste, which it called "the monsters of your community".⁷ The media campaign is backed by the Ministry of Environment and Forests – a good example of cooperation between civil society, business organisations and the government. Perhaps as a result, research on e-waste-related attitudes and behaviours, conducted in Romanian urban areas, has shown positive trends in terms of a willingness to recycle dysfunctional appliances.⁸ At the same time, however, 70% of the Romanian urban population surveyed is not aware of the laws and regulations related to e-waste.

ICT policy

As far as ICT policy is concerned, from 2000 to 2007 Romanian legislative efforts have been driven both by EU accession requirements and a strong business lobby. As a result, visible efforts have been made concerning digital inclusion (see GISWatch country report 2007),⁹ infrastructural investments (GISWatch country report 2008),¹⁰ and modest

results concerning the quality of online content provision (GISWatch country report 2009).¹¹

ICT policy priorities have been set by the Ministry of Communications and Information Society for the medium term in its strategic planning documents.¹² Three key policy areas have been identified: communications, information technologies and EU structural funds. Strategic documents do not address environmental issues. However, a Romanian ICT policy scan resulted in three documents which explicitly referred to environmental issues:

- The Ministry of Communications and Information Society's Strategic Plan for Universal Access states that implementing basic access to ICT services throughout the country will decrease urban agglomerations and serve environmental protection: lower pollution levels, a smaller gap between rural and urban areas and enhanced social cohesion.
- Government Decision No. 175/2004 concerning criteria of ecological labelling for laptops establishes the technical parameters and the information provision needed for a greener, low energy-consuming and more easily recyclable computer.
- Ordinance No. 125/2003 issued by the Ministry of Communications and Information Technology concerning the import and selling of mobile telephones prescribes the technical parameters of electromagnetic radiation in order to protect users' health.

Environmental divide: What does it mean?

The policy scan has shown that key stakeholders in policy making – governmental agencies, business organisations and civil society activists – are not aware of the issues at stake; that is, the link between ICTs and environmental issues. Indicators for the environmental impact of ICTs are not publicly available, and are not even discussed at important public events: the main issues on the agenda of key ICT actors in 2009-2010 were e-government, the eRomania project, EU funding, and cooperation between the government and IT companies. The lack of visibility of civil society organisations at major governmental ICT events and the dominance of major business players are striking elements of public ICT discourse in Romania, as already signalled in GISWatch country reports 2007, 2008 and 2009.

Key stakeholders for a future green ICT agenda, as assessed in September 2009 for the Romanian GreeningIT research plan,¹³ include a wide range of organisations, groups and individuals. *Governmental agencies* in charge of planning and implementing environmental and ICT

7 www.hotnews.ro/concurs_foto_video_vreau_o_romanie_mai_curata_monstriei_din_comunitatea_ta

8 Daedalus (2009) op. cit.

9 www.giswatch.org/gisw2007/countries

10 www.giswatch.org/gisw2008/GISW2008.html

11 www.giswatch.org/gisw2009/GISW2009.html

12 Planul strategic al Ministerului Comunicațiilor și Tehnologiei Informației 2007–2009; Programare bugetara 2008–2011. www.mcsi.ro/Minister/Despre-MCSI/Unitatea-de-Politici-Publice/Documente-programatice

13 Bakó, R. and Sólyom, A. (2009) *GreeningIT Research Plan for Romania*, Association for Progressive Communications.

policies are the Ministry of Environment and the eight regional Environmental Protection Agencies, key governmental agents shaping and implementing environmental policies; and the Ministry of Communications and Information Society and parliamentary commission for ICTs, key governmental actors involved in ICT policy making. *Environmental NGOs* are the main actors pioneering, spreading and implementing innovative environmentally friendly models of thinking and acting. *Opinion leaders* act as role models, innovators, advocates and quick-links between NGOs and decision makers. Their high visibility within civil society and mainstream media enables a stronger outreach of role models in terms of greening ICTs. *ICT and environmental experts*, who are found across the different sectors, have a key role in providing high-quality, accurate input to the issues at stake.

New trends

Romanian mainstream discourse does not address ICTs and environmental sustainability as connected issues. However, there are positive trends on both the ICT and environmental protection sides that show an intertwining and interaction of concerns. On the one hand, the environmental impact of ICTs gains visibility through mainstreaming e-waste issues; on the other hand, environmental organisations use ICT tools in order to promote their values and gather supporters.

An environmental index, the Green Business Index (GBI), was launched in 2010 by the Green Revolution Association. The indicator reflects the level of environmental responsibility within the Romanian business sector. The GBI will rank the top companies that demonstrate concern for the environment or natural resources and that invest in clean solutions and technologies.¹⁴ The initiative also plans to produce a report showing the environmental footprint of the companies. The number of companies using environmental responsibility as criteria for self-evaluation shows a new approach to corporate social responsibility.

Action steps

Environmental and ICT issues still evolve on separate tracks in Romania, though with visible signs of intertwining. In order to develop a green ICT agenda in the country, several steps are necessary:

- Key stakeholders should be educated in order to promote a green approach to ICTs and a clean-tech approach to the environment.
- A set of economic indicators should be publicly available in order to assess the environmental impact of ICT use, as proposed at the 4th Internet Governance Forum (IGF).¹⁵ These should include volumes of ICT exports and imports, employment rates in ICT-related industries, income generation in ICT-related industries, and impact of ICTs on efficiency. The IGF also proposes monitoring the availability of environmental content on the internet as a measure of the success of awareness-raising efforts.
- A set of environmental indicators should be developed in order to assess the impact of ICTs on the environment, and made publicly available.
- Primary research on ICTs and the environment should be encouraged through funding.
- Romanian ICT and environmental protection officials should be more actively involved in international discussions taking place at green ICT events.
- Civil society organisations should have a more active role in promoting the green ICT agenda, along with businesses and governmental agencies.

There is room for all: inclusion and participation should be the guiding principles of a responsible, clean, connected society in Romania. ■

14 www.gbindex.ro

15 Vetter, T. (2009) Measuring the impact of Internet governance on sustainable development, report presented in Workshop #304 at the 4th Internet Governance Forum, Sharm el Sheikh, Egypt, 15-18 November. www.intgovforum.org/cms/index.php/component/chronocontact/?chronoformname=Workshopsreports2009View&curr=1&wr=48

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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