

# Chapter 15

## E-Waste Management in East African Community

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### ABSTRACT

*The rapidly increased use of Information and Communications Technologies (ICTs) has increased demand for electronic equipment such as mobile phones and computers. Individuals and government institutions worldwide are adopting ICTs at a fast pace. Increased consumption has resulted in huge amounts of e-Waste generated from scrapped electronics. E-Waste contains chemical substances that have adverse effects on the environment and human health. Consequently, handling of e-Waste needs to be organized in ways that minimize the adverse effects. This chapter investigates how the East African Community (EAC) governments, i.e., Kenya, Uganda, Tanzania, Rwanda, and Burundi, conceive their role in combating negative impact of e-Waste and how their views and current actions compare to the current state of the art practices in e-Waste management. As data on e-Waste handling in EAC countries is not publicly available, semi-structured interviews with high government officials and a literature review were conducted. The results show that EAC governments consider e-Waste to be an emerging problem. Despite this awareness and attempts to mitigate the problem in some of the countries, there are currently no solid solutions that have been crafted to rectify or mitigate this problem. The study suggests practical solutions for resolving e-Waste challenges in EAC.*

### INTRODUCTION

The hugely increased use of Information and Communication Technologies (ICT) has raised concerns related to health and environmental

degradation. Despite their constructive role in improving public sector activities, their far-reaching implications are surfacing critics. From a perspective of a green environment and sustainable development, Green IT is required for the safety of living things and the environment. Tedre et al. (2009) suggest that “ICT development without an

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eye on environmental protection is not sustainable” (p. 1). Green IT is a computing sustainable strategy, and development towards e-Government requires governments to strengthen their role in environmental management and preservation using such a strategy.

E-Government was earlier sometimes narrowly defined as the use of ICTs by government agencies. Today, its meaning and the general conceptual outlay has greatly broadened. The European Commission (EC) defines it as the use of ICT “combined with organizational change and new skills in order to improve public services and democratic processes” (EU, 2001), and the OECD definition is “... the use of ICTs, and particularly the Internet, as a tool to achieve better government” (OECD, 2003, 2009; Grönlund, 2010; emphasis by authors). e-Government is today most typically described as an “open, dynamic sociotechnical system” (Dawes, 2009), in which governments play a pivotal role.

This increased e-Government ambition is imperative as many government actions related to e-Government affect the entire society, such as cyberlaws, privacy regulation, Internet and telecom infrastructure, etc. Hence, increasingly, governments are taking a governance perspective, which means they see themselves as the regulator of many processes, performed by multiple actors, related to ICT usage in society, and as guarantors for the quality of those processes. From this perspective, it is obvious that issues like e-Waste management are part-and-parcel of e-Government or governance. It is on most governments’ agenda to increase and improve ICT usage in society while at the same time working towards environmentally sustainable processes. Therefore, whether the consumption of ICT products is by private business, government institutions, or individuals, governments remain the custodians for ensuring proper recycling. Governments have the necessary power factor than other non-governmental actors and so should be the key activists for a greener development. Governments are also mandated to

put in place proper regulation procedures regarding the importation of ICT products. Through sensitization, creating guidelines and standards, and building e-Waste legal frameworks and policies in collaboration with the private sector and individuals, procedures for the recycling of e-Waste can be controlled. At the international level, governments are equally responsible for global health and environmental issues. Thus, it should be demanded that they participate in solving such problems as e-waste.

The objective of this study is to investigate the conceived role and actions of governments in EAC towards management and control of e-waste. The following are the study’s research questions:

1. How do East African Community governments conceive their role in combating negative impact of e-waste? *and*
2. How do their views and current actions compare to the current state of the art in e-Waste management?

The overall contribution of this study is that it assesses the extent to which the governments’ actions are practical, sustainable and concur with the current state of the art in e-Waste management in the EAC region. The study also suggests efficient and effective solutions based on other studies and practices in other countries.

## **BACKGROUND**

ICTs play a significant role in areas of development such as health (Kleine & Unwin, 2009), education (Hayford & Lynch, 2003), public administration, etc. However, they are expensive to acquire and maintain. Difficulty in acquiring ICT hardware and software in developing regions has led to consumption of second hand products and software piracy. Some of the second hand products that are nearing the end of their lifecycles as useful products are commonly referred to as e-Waste

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