Chapter 3
Rwanda as a Knowledge Society

Rehema Baguma
Makerere University, Uganda

Susana Finquelievich
University of Buenos Aires, Argentina

ABSTRACT

Generating and developing knowledge societies is a key element for sustainable development as defined in the 2030 Agenda for Sustainable Development Goals adopted by the United Nations in 2015. Based on a limited natural resource base, Rwanda chose to take an approach to development that differs from that of its neighbours by making ICTs the cornerstone of its development. With this focus, government of Rwanda (GoR) took a Pro-ICT led public policy that has led to several public reforms such as but not limited to liberalization of the telecom sector, enactment of laws to govern electronic messages, signatures, transactions, data protection, cyber-security and ICT usage, development of relevant infrastructure and establishment of key institutions such as the Rwanda Utilities and Regulatory Agency (RURA) and Rwanda Information Society Authority (RISA). These reforms have in turn led to a fast-growing ICT sector in Rwanda compared to that of the neighbours. To-date, Rwanda is one of the fastest growing African countries in ICT. In 2015, Rwanda emerged as the third best ICT country in Sub-Saharan Africa behind South Africa and Seychelles. In 2016, it moved one position up and emerged 2nd behind Seychelles. The fast-growing ICT sector has stimulated entrepreneurial creativity and growth across the economy. This chapter examines the best practices that Rwanda has applied in her journey to a knowledge society that could possibly help other countries in the region pursuing the same objective. The chapter also briefly reviews challenges and gaps in Rwanda's journey to a knowledge society and suggests recommendations for further improvement.

1. INTRODUCTION

Unlike most African nations, Rwanda has limited natural resources but Rwanda chose to take this limitation as an opportunity to take an approach to development that differs from that of its neighbours by making information and communication technologies (ICTs) the cornerstone of its development. With that goal, the government of Rwanda initiated the fourteen-year "National Information and Communication Infrastructure policy and plan (NICI) for 2006-2020. The overall aim of the NICI framework was to guide the country in the adoption and exploitation of modern ICTs to increase socio-economic development and create value for all citizens. The first NICI phase (2000 to 2005) focused on creating policies favourable to ICT initiatives. The second phase (2006 to 2010) concentrated on building the ICT backbone, including laying fibre-optic cables. The third phase (2011 to 2015) was aimed at speeding up the introduction of services to exploit the new technology[1]. The Pro-ICT public policy has led to several public reforms such as but not limited to: liberalization of the telecom sector, enactment of laws to govern electronic messages, signatures, transactions, data protection, cyber-security and ICT usage, establishment of key institutions such as the Rwanda Utilities and Regulatory Agency (RURA that has since adopted the International Telecommunications Union (ITU) ICT industry standards and the Rwanda Information Society (RISA) among others. Furthermore, the Government has also enhanced the ICT infrastructure by establishing a national data centre that centralizes information storage, management and protection, as well as use of cloud computing opportunities. Additionally, it has deployed a national fiber-optic backbone network that connects Rwanda to international sea cables increasing internet accessibility and affordability as well as connecting Rwandans to global networks.

Due to the varied reforms in the ICT sector, the country has registered a high growth rate of Internet usage compared to her neighbours and the global average. In the 2017 ITU global report on Measuring the Information Society, Rwanda was commended for a proactive strategic vision for the ICT sector that has made her achieve one of the highest levels of mobile broadband coverage in sub-Saharan Africa. In 2017, Mobile-cellular subscription per 100 inhabitants were 69.9 with Africa at 74.6 while LTE/WiMAX coverage (% of population) was 62 with Africa at 25.7 (ITU, 2017).

To-date, Rwanda is one of the fastest growing African countries in ICT. In 2015, it emerged 3rd best ICT country in Sub Saharan Africa behind South Africa and Seychelles (GIT Report, 2015). In 2016, it moved one position up and emerged 2nd behind Seychelles (GIT Report, 2016).

The ICT led development approach has stimulated entrepreneurial creativity and growth across the economy. In 2017, the "Ease of Doing Business" rankings,

20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/rwanda-as-a-knowledge-society/266859

Related Content

The Era of Digital Technology in Teaching and Learning in African Universities

Blessing F. Adeoyeand E. B. Anyikwa (2014). *Effects of Information Capitalism and Globalization on Teaching and Learning (pp. 36-47).*

www.irma-international.org/chapter/the-era-of-digital-technology-in-teaching-and-learning-in-african-universities/113238

Multimedia Instructions and Academic Performance of Students: An Empirical Study of a Developing Country

Abdul Gaffar Khan, Sayma Hossain Shetu, Md. Nazmul Islamand Syed Moudud-UI-Huq (2020). *International Journal of Smart Education and Urban Society (pp. 23-40).*

www.irma-international.org/article/multimedia-instructions-and-academic-performance-of-students/242955

Using Social Tags and User Rating Patterns for Collaborative Filtering

Iljoo Kimand Vipul Gupta (2017). *International Journal of Information Systems and Social Change (pp. 25-49).*

www.irma-international.org/article/using-social-tags-and-user-rating-patterns-for-collaborative-filtering/176942

Changing Attitudes Toward Women IT Managers

Gary Hackbarth, Kevin E. Dow, Hongmei Wangand W. Roy Johnson (2010). *International Journal of Information Systems and Social Change (pp. 28-44).*

www.irma-international.org/article/changing-attitudes-toward-women-managers/45875

Knowledge Management and Reverse Mentoring in the Nigerian Tertiary Institutions

Ayotunde Adebayo (2014). *Effects of Information Capitalism and Globalization on Teaching and Learning (pp. 200-215).*

www.irma-international.org/chapter/knowledge-management-and-reverse-mentoring-in-the-nigerian-tertiary-institutions/113253