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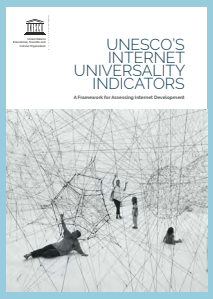
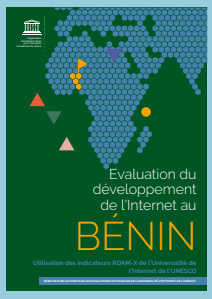
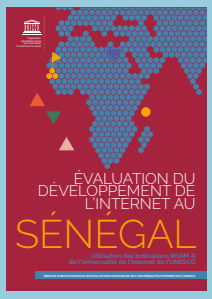
ASSESSING INTERNET DEVELOPMENT IN KENYA

Using UNESCO's Internet Universality ROAM-X Indicators

UNESCO SERIES OF INTERNET UNIVERSALITY NATIONAL ASSESSMENTS







This is the 4th edition of UNESCO Publication Series on Internet Universality National Assessments. This Series is a means to share good practices in voluntarily assessing the Internet Universality ROAM-X Indicators at national level. It follows the resolution of UNESCO's 31st session of the Council of the International Programme for the Development of Communication (IPDC) in November 2018, by which Member States were given the green light to engage in voluntary assessments of their Internet environment using the ROAM-X Indicators.

By evaluating a given country's Internet environment against the ROAM-X indicators, the national assessment process aims to:

- Present a comprehensive and substantive understanding of the national Internet environment and policies;
- Assess their alignment to UNESCO's R.O.A.M. principles and their contribution to sustainable development;
- Develop policy recommendations and practical initiatives that will enable the country to improve their Internet ecosystem as advanced ICTs evolve.

The national assessment of Kenya is the 4th edition of the Series, following Brazil, Benin and Senegal.

ASSESSING INTERNET DEVELOPMENT IN KENYA

Using UNESCO's Internet Universality ROAM-X Indicators

The Kenya ICT Action Network (KICTANet)

UNESCO Series of Internet Universality Indicators National Assessments

Note: This is an assessment of 109 core indicators instead of the full set of 303 indicators, and it is therefore not intended to cover all dimensions of the digital ecosystem in the country, but serves to take stock of significant progress and signal those gaps in a need to be improved in adhering to ROAM framework. As the Internet environment is changing very fast, so are the data collected and analysis and recommendations made upon. UNESCO encourages countries to continue the dialogues about the findings, and to update the assessment after due time while also keeping track of the latest developments to monitor and adapt and sometimes strengthen the recommendations to further enhance their impact, as appropriate.

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UNESCO Project Coordination: Xianhong Hu, Karen Landa and John Okande

Email: Internet.indicators@unesco.org

Website: http://en.unesco.org/Internetuniversality

International Technical Advisors: David Souter

Graphic design, cover design, illustrations, and typeset: UNESCO

Copy-editing: Sara Moussi

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Preface

The global crisis linked to the COVID-19 pandemic underlines how crucial it is for our societies to have access to information and to the Internet in order to strengthen our resilience in the face of the multiple challenges facing humanity.

Through the concept of Internet Universality, UNESCO is working for the development of the Internet to foster sustainable development. This concept, endorsed by Member States in 2015 during UNESCO's 38th General Conference, is based on the four ROAM principles – meaning that UNESCO stands for an Internet that is human-Rights based, Open, Accessible to all, and governed through Multi-stakeholder participation. At the heart of UNESCO's positioning on issues related to Internet governance, this same concept constitutes the basis of the present national voluntary assessment report of UNESCO's Internet Universality Indicators in Kenya.

Beyond its conceptual approach, the Internet Universality Indicators serve as a tangible and practical tool to enable an environment conducive to the development of the Internet, by way of an alignment with the ROAM principles. That is why, over a period of two years, and through a global, open and multi-stakeholder process, UNESCO worked towards the elaboration of the Internet Universality Indicators – an unprecedented instrument designed to allow Member States to assess Internet development at the national level. The Indicators render possible a "diagnosis" of national Internet environments from a ROAM perspective, which can inform recommendations for actions that build on the Internet's strengths and harness the knowledge gained for its improvements.

The framework of Internet Universality consists of 303 indicators, of which 109 "core" ones. The indicators examine the four ROAM categories, and look at cross-cutting issues such as gender equality, children and youth, trust and digital security. In addition, a series of contextual indicators serve to situate the findings within the specific country.

The present voluntary assessment report of Internet Universality Indicators in Kenya contributes, along with the reports in Benin and Senegal, to paving the way for similar assessments in other countries, notably in Africa. Its production is owed to the excellent work of The Kenya ICT Action Network (KICTANet), and to the fruitful engagement of the Multi-stakeholder Advisory Board.

It is important to stress the significance of conducting this assessment through an inclusive bottom-up exercise that empowers multi-stakeholderism as an innovative governance model in the country

while addressing Internet Universality principles concretely. This is an example of ground-level Digital Co-operation, as promoted by the UN Secretary General.

This assessment provides a roadmap for the country to discuss and reform its Internet policies and digital environment. UNESCO recognizes that the policy recommendations formulated in the report as the important outcome delivered by this national multi-stakeholders process and reflects the consensus reached by national stakeholders on the way forward. UNESCO will continue to engage with key national policy makers and stakeholders to trigger policy discussions and facilitate transforming those key recommendations into actions and changes. UNESCO will also continue its effort to ensure those actions and changes to take place in line with international standards and with the objective of harnessing digital opportunities for sustainable development. UNESCO stands also ready to assist in strengthening the recommendations and follow-up actions with more international expertise.

To meet UNESCO 's Member States and all stakeholders' increasing demand to access and use the ROAM-X indicators and national assessments related data, tools and reports, a consolidated online platform and policy observatory that will gather a variety of UNESCO indicators and enable data optimization is being developed. At the international level, UNESCO will launch a Dynamic Coalition on Internet Universality at the Internet Governance Forum of 2020, aiming to offer a new space for sharing experiences and raising awareness of the Indicators.

It is my hope that the insights and recommendations contained in this report will trigger fruitful policy discussion on possible actions to be implemented, and thus contribute to highlighting the relevance of the principles of Internet Universality for sustainable development in Kenya.

In this spirit, I wish you a pleasant reading.

Moez Chakchouk
Assistant Director-General for Communication and Information
UNESCO

Foreword

Kenya's Internet access and use rates have continued to grow over the past decade. The country leads in the uptake of ICTs in East Africa and remains active in national, regional and global Internet discourses.

The Kenya ICT Action Network (KICTANet) is proud to have conducted this assessment using UNESCO's Internet Universality Indicators. KICTANet is a multistakeholder platform for people and institutions interested in ICT policy and regulation. It aims to catalyse ICT reforms while ensuring that ICT policy making processes adopt open, accessible, human-rights based approaches that are characterized by multistakeholder participation. This objective set the foundation of years of fruitful collaboration with UNESCO and is indeed in line with the UNESCO ROAM-X framework.

This report is a product of the efforts of a team of researchers, supported by a Multistakeholder Advisory Board (MAB), as well as a range of several stakeholders, who also participated in the validation meeting and contributed to the discussions on the KICTANet mailing list. The research team to whom we are truly grateful, worked on this report from September 2019, gathering and analysing data, seeking out comments from different stakeholders, incorporating feedback and finally, preparing the final report.

KICTANet promotes a multistakeholder approach and embraces collaboration, open engagement and partnerships. Its sustained engagement of a broad range of stakeholders since its formation in 2006 on different ICT policy making processes exemplify the benefits of the multistakeholder model. Since March 2005, there have been 35,746 emails in 10,274 discussion threads covering various ICT Policy issues on KICTANet's email discussions list. Additionally, KICTANet has had valuable engagements with the ICT committees of Parliament (Senate and the National Assembly). As a result, policies such as Kenya's ICT Policy 2006, the ICT Policy 2019, the National Broadband Strategy, Kenya Information and Communication Act 2009, the Computer Misuse and Cybercrimes Act, 2018, and the Data Protection Act 2019 have benefitted from multistakeholder input championed by KICTANet.

The Network continues to draw its strength from crowdsourcing ideas, conducting research and advocating for policy change in the public interest. In line with its research mandate, this report will provide a sound basis to further KICTANet's engagements and buttress its framework for cooperation and collaboration in ICT matters in partnership with industry, technical community, academia, media, civil society, development partners and Government.

KICTANet considers this publication yet another milestone, and hopes that it shall be a useful contribution to the development of sound policy, legal, regulatory and technical approaches and responses that shall ultimately promote the development of the ICT sector in Kenya.

Grace Githaiga and Victor Kapiyo
Lead Researchers

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We thank the Multistakeholder Advisory Board who volunteered their time to guide the development of the publication. Moreover, we are grateful to the team of ten researchers for their commitment and dedication to prepare the report to its conclusion. The team of researchers include:

Rights: Victor Kapiyo and Angela Minayo

Accessibility: Mwendwa Kivuva and Elizabeth Orembo

Openness: Grace Mutung'u and Tevin Mwenda

Multistakeholderism: Grace Githaiga and Mwara Gichanga

X-Cross Cutting Issues: Dr. Wambui Wamunyu and Cecilia Maundu

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Further, we are grateful to the KICTANet Trustees and the UNESCO team for their support throughout the process of this research.

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Table of Contents

Preface 3

Foreword 5

Acknowledgements 7

Table of Contents 8

Lists of Charts and Tables 11

Abbreviations and Acronyms 12

Executive Summary 14

CHAPTER 1: INTRODUCTION 21

Background of the UNESCO Internet Universality Indicators 22

National Context of the Assessment initiative 23

Methodology 23

Structure of the Report 24

CHAPTER 2: CONTEXTUAL INDICATORS: FINDINGS 27

Economic Indicators 28

Demographic Indicators 31

Development Indicato 32

Equality Indicators 34

Governance Indicators 35
ICT Development Indicators 36

CHAPTER 3: CATEGORY R – RIGHTS 41

Theme A – Policy, Legal and Regulatory Framework 42
Theme B – Freedom of Expression 44
Theme C – Right of Access to Information 47
Theme D – Freedom of Association and the Right to take part in the Conduct of Public Affairs 51
Theme E – The Right to Privacy 54
Theme F – Social, Economic and Cultural Rights 57
Policy Recommendations for Various Stakeholders 61

CHAPTER 4: CATEGORY O – OPENNESS 65

Theme A – Policy, Legal and Regulatory Framework 66
Theme B – Open Standards 68
Theme C – Open Markets 70
Theme D – Open Content 74
Theme E – Open Data and Open Government 76
Policy Recommendations for Various Stakeholders 82

CHAPTER 5: CATEGORY A – ACCESSIBILITY TO ALL 85

Theme A – Policy, Legal and Regulatory Framework 86
Theme B – Connectivity and Usage 89
Theme C – Affordability 95
Theme D – Equitable Access 98
Theme E – Local Content and Language 102
Theme F – Capabilities / Competencies 104
Policy Recommendations for Various Stakeholders 108

CHAPTER 6: CATEGORY M – MULTI-STAKEHOLDER PARTICIPATION 111

Theme A – Policy, Legal and Regulatory Framework 112

Theme B – National Internet Governance 115

Theme C – International and Regional Internet Governance 121

Policy Recommendations for Various Stakeholders 126

CHAPTER 7: CATEGORY X – CROSS-CUTTING INDICATORS 129

Theme A – Gender 130

Theme B – Children 140

Theme C – Sustainable Development 145

Theme D – Trust and Security 147

Theme E – Legal and Ethical Aspects of the Internet 150

Policy Recommendations for Various Stakeholders 152

CHAPTER 8: CONCLUSIONS AND KEY PRIORITY RECOMMENDATIONS, BY STAKEHOLDER GROUPS 155

Major Findings and Challenges categorized by ROAM –X indicators 156

Key Recommendations for Action by Stakeholder Groups 158

ANNEX 1: LIST OF MULTISTAKEHOLDER ADVISORY BOARD 166

ANNEX 2: LIST OF PEER REVIEWERS 167

Lists of Charts and Tables

Figure 1. Kenya's GDP per Capita from 2006 to 2018 in the chart 28

Figure 2. Gross National Income (GNI) (purchasing power parity) per capita 29

Figure 3. Proportion of GDP attributable to services 30

Figure 4. The population growth trend 31

Table 1. Kenya's HDI trends 32

Table 2. Number of Social media users in Kenya in 2017 90

Table 3. Broadband Subscriptions by Speed 2014-2018 91

Table 4. The average speeds offered by the major mobile service providers in Kenya 92

Table 5. Number of unique broadband subscribers in Kenya 2014 - 2018 93

Table 6. A comparison of Safaricom, Airtel and Jamii Faiba 4G 97

Table 7. Patterns of social media usage in Kenya aggregated by gender 100

Table 8. Barriers to Internet Access and Use in Kenya in 2017 100

Table 9. Kenya Country domain registration trends, 2014 - 2018 102

Table 10. Ratio of Men to women in leadership/management roles at ICT-related entities in Kenya 132

Table 11. Kenya Mobile phone use in seven days prior to survey (2010) 133

Table 12. Reported use of computers by gender in Kenya (2010) 133

Table 13. ICT access and s gender statistics 134

Table 14. Survey on Children aged 12-17 Use of Internet in Kenya 141

Table 15. Risky activities engaged in by children 142

Abbreviations and Acronyms

CA	Communications Authority of Kenya
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
COFEK	Consumers Federation of Kenya
CERT	Computer Emergency Response Team
CSR	Corporate Social Responsibility
FOSS	Free and Open-Source Software
GNI	Gross National Income
HDI	Human Development Index
HIS	Health Information System
ICT	Information, Communication, and Technology
ICESR	International Covenant on Social and Economic Rights
ICCPR	International Covenant on Civil and Political Rights
IPDC	International Programme for the Development of Communication
ISPs	Internet Services Providers
ITU	International Telecommunication Union
JAWS	Job Access with Speech
KENIC	Kenya Network Information Centre
KENET	Kenya Education Network
KICTANet	Kenya ICT Action Network
KICA	Kenya Information and Communications Act
KNCHR	Kenya National Human Rights Commission
MAB	Multistakeholder Advisory Board
NCS	National Communication Secretariat
NEMIS	National Education Management Information System
OER	Open Educational Resources
OGP	Open Government Partnership
OTT	Over the Top Technologies
PWD	Persons with Disability

ROAM-X Indicators	Rights, Openness, Accessibility, multistakeholder and cross -cutting indicators
PPP	Public-private partnership
SMS	Short Message Services
SMEs	Small and medium-sized enterprises
ULF	Unified Licensing Framework
UNESCO	United Nations Educational, Scientific and Cultural Organization
USF	Universal Service Fund
USSD	Unstructured Supplementary Service Data

Executive Summary

This report provides the findings of UNESCO Internet Universality Indicators pilot assessment in Kenya, undertaken by the Kenya ICT Action Network (KICTANet) and completed in March 2020. The report assessed the core indicators of UNESCO's Internet Universality Indicators in line with the approved methodology and guidelines. KICTANet adopted a multistakeholder approach including hosting a validation forum in February 2020 to get feedback and finally developed focused recommendations for various stakeholder groups. The assessment has found that Kenya has a robust Internet environment that is developing in line with international best practice. However, some shortcomings were noted in the various result areas under review.

R - Rights

Kenya has a comprehensive policy, legal and institutional framework for human rights which adopts international human rights standards for among others: freedom of expression, access to information, freedom of association, the right to participate in the conduct of public affairs, right to privacy, and social economic and cultural rights. While there is no legislation blocking Internet access, there are legal restrictions of human rights, and challenges in enforcement and implementation. Also, there is limited focus by key actors to systematically monitor the state of human rights particularly with respect to the digital environment. Also, awareness across key sectors on the UN Business and Human Rights principles and individual rights remains areas of concern.

O - Openness

While Kenya's ICT sector operates as an open market economy, there are a number of factors affecting the provision of ICT services. The country adopted a unified licensing framework (ULF) for the telecommunications sector. However, there are no clear regulations for open standards, free and open software and other licensing options for new areas of technology. Also, government policy and support for Internet access for persons with disability remains a challenge. Further, developing policies on open markets, open content, open data and open government initiatives will be critical. However, the lack of non-commercial perspectives only benefits commercial players at the expense of other key players. The absence of overarching open standards may deny local technologists transfer of knowledge. Also, there is little awareness and policies for accessibility of government services online.

A - Accessibility

Internet access has tremendously increased over the years largely due to favorable policies adopted by the government, investments by key stakeholders, and a vibrant population that has embraced technology. While the Internet penetration rate stands at 49% of which 98% connect through mobile data, there are gaps and disparities in connectivity and usage, affordability, equitable access, key platforms, capabilities and competencies and local content and language. The government has embraced digitization of its services but at the same time enlarged the access-divide. Moreover, while the Constitution and the Access to Information Act, 2016 promote access to information, Internet access is not a right. It was also observed that there was limited evidence-based research and few comprehensive digital literacy programmes.

M - Multistakeholder

Kenya's constitution has adopted the concept of multistakeholderism in its principle of public participation under its Article 10. The key policy making bodies include the National Communication Secretariat (NCS), the Ministry of ICT, the Communications Authority (CA) and Parliament. However, public engagement on key policy issues can be limited due to the absence of a law on public participation, low awareness and understanding of policy processes, and unwillingness of policy making bodies to proactively share information in a timely fashion to enable meaningful engagement. However, there are valuable engagements between stakeholders on national Internet governance. Kenya was among the first countries in Africa to host the Internet Governance Forum (IGF) in 2009. The Kenya IGF (KIGF), now in its 11th year, has been convened by KICTANet since 2008 and is hailed as one of the continent's success stories for multistakeholder engagement.

X - Cross-cutting Issues

Cross-cutting issues such as gender, children, sustainable development, trust and security and legal ethical aspects affect the Internet ecosystem in Kenya. The government has enacted several laws and policies which recognize and address the cross-cutting issues, however, there are challenges in implementation, enforcement and institutional capacities. Also, there continues to be a gender divide in Internet access and use in Kenya, particularly in the rural areas. The safety of children online and access to education remain areas requiring attention. Moreover, there is limited empirical research on the impact of the cross-cutting issues on the Internet in the country. The need to enhance the nation's cybersecurity posture, build national capability, foster information sharing and collaboration, and provide national leadership in cybersecurity will be critical. Also, addressing the limited public awareness, coupled with the growing digital divide remain areas of concern.

Key Policy Recommendations

Government

- Adopt the multistakeholder model, enact a policy, legal and institutional framework for public participation and citizen engagement, and embrace multistakeholder participation in government delegations to international and key treaty making conferences.
- Enforce and periodically evaluate the implementation of policies and laws affecting the Internet and human rights in the digital environment.
- Invest in evidence-based research to provide accurate and diverse statistics for policy and decision-making on areas covered by the ROAM-X indicators.
- Adopt a clear cultural heritage policy to fulfill article 11 of the Constitution.
- Review the licensing framework to include non-commercial business models for provision of ICT services such as community networks.
- Lower taxes for mobile phones to increase affordability among the citizens.
- Implement the two-thirds gender quota to ensure balanced representation in ICT policy making processes and in decision-making positions.
- Reform the Children Act to address child sexual exploitation, cyberbullying, and exposure of children to inappropriate content.
- Develop a robust cybersecurity strategy coupled with an effective legal, policy and institutional framework.
- Train and equip law enforcement officers on cybersecurity.

Private Sector

- Embrace and commit to the United Nations Business and Human Rights Principles.
- Collaborate with other stakeholders including civil society to advance human rights.
- Partner with the academia to generate evidence-based research and development.
- Invest in infrastructure including in areas that are unconnected or are not profitable as part of Corporate Social Responsibility (CSR).
- Engage the government together with other stakeholders on proposed policies and laws, and initiate proposals that promote a conducive business environment.
- Adopt privacy by design approach as a mandatory feature.

Academia

- Conduct more issue and evidence-based research on the use and impact of technology and the thematic areas under ROAM-X in Kenya to inform decision and policy making.
- Curate government content for use by future generations.
- Engage and partner with other stakeholders in research projects.
- Research on children's access and usage of ICT across social economic, cultural and geographical areas.
- Carry out empirical research and capture and record data aggregated by key areas in relation to ICT such as gender, age, geography, demographics, and cultural contents.

Technical Community

- Promote human rights in technical innovation and incorporate human rights principles and best practice in technology design and use.
- Cultivate interest and participate in policy making processes together with other stakeholders.
- Advocate for an enabling environment to operate in, including for innovation and favorable work conditions.
- Promote ethical practices in the community and work towards ensuring principles are embedded in software and mobile application development.
- Partner with other stakeholders to strengthen the ICT ecosystem in Kenya.

Civil Society

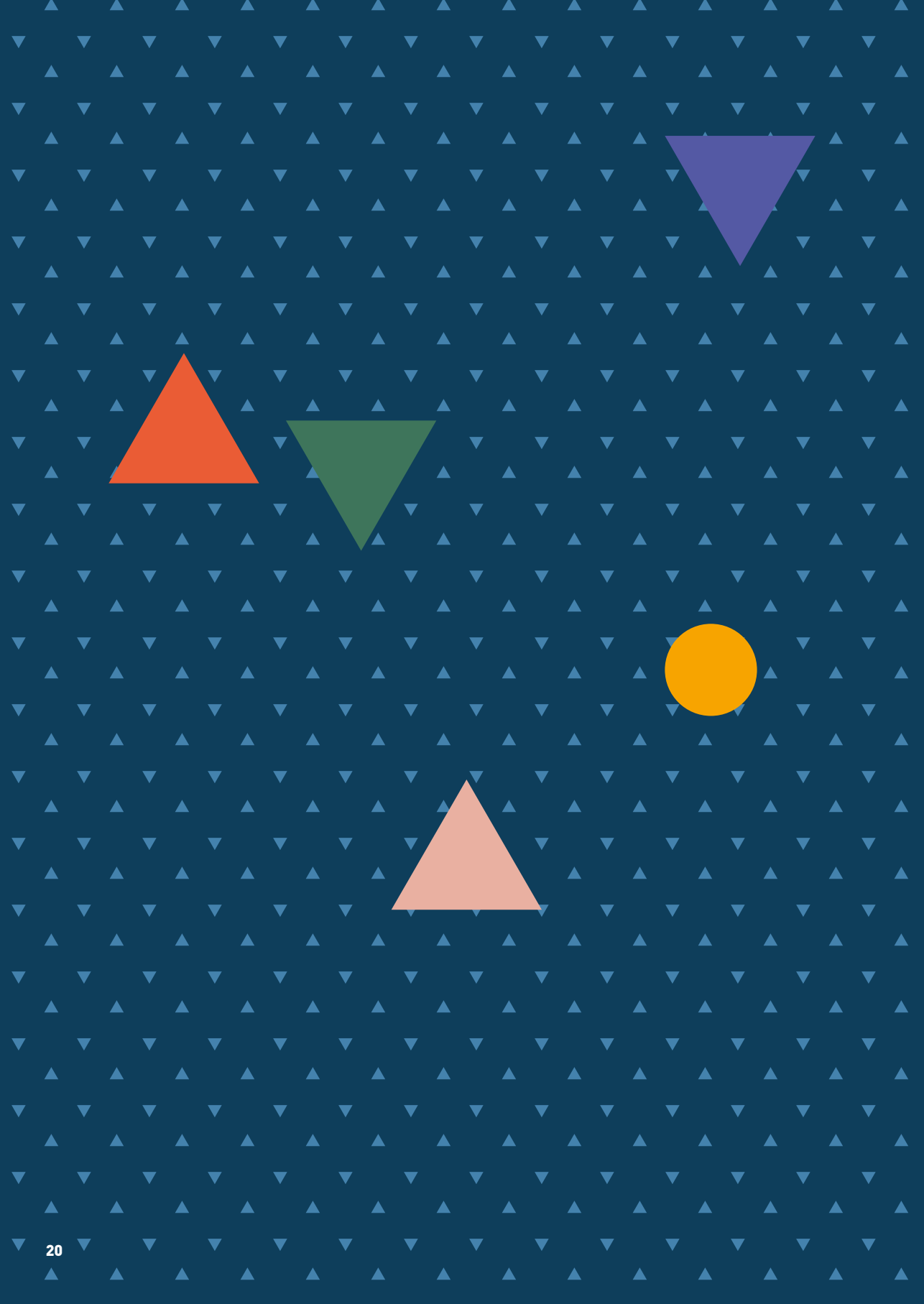
- Monitor and report on human rights violations, including on digital platforms.
- Engage with stakeholders to address human rights violations.
- Rank government websites and portals for ease of use.
- Test open data spaces and practices to provide evidence-based policy making on open data.
- Create awareness on consumer digital rights.
- Conduct research and collate data on all multistakeholder engagements to track participation, and monitor inclusion, diversity and stakeholder representation.
- Advocate to ensure the gaps identified in the ROAM-X study are addressed.

Individual Users

- Monitor the practices of other stakeholders and resist abuse of their rights online and seek redress from the appropriate agencies whenever there is a violation.
- Cultivate interest, and endeavor to participate in awareness creation programs on Internet governance and the meaning of multistakeholderism.
- Make children aware of both the positive and negative aspects of the Internet, from the family level, the education system and the wider society and this can be done through literacy campaigns by the government, media and other interested parties.

Media and Journalists

- Use their platforms to create awareness of the public on their rights online.
- Report and cover more news stories on Internet governance and the multistakeholder nature of Internet governance.
- Sensitize and create awareness on Internet governance issues, in a timely fashion.
- Engage in national, regional and global forums to understand and build knowledge in the area of Internet governance.
- Provide regular coverage on the areas covered under the ROAM-X indicators.



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INTRODUCTION

1

Background of the UNESCO Internet Universality Indicators

UNESCO's Internet Universality Indicators aim to assess levels of achievement, in individual countries, of the four fundamental ROAM principles included in the concept of 'Internet Universality' which supports an Internet that is based on human Rights (R), that is Open (O), Accessible to all (A) and nurtured by Multistakeholder participation (M). They contain 303 indicators (including 109 core ones) developed under 6 categories, 25 themes, and 124 questions. On top of the ROAM categories, 79 cross-cutting Indicators (category X) have been developed concerning gender and the needs of children and young people, sustainable development, trust and security, and legal and ethical aspects of the Internet. In addition, the framework includes 21 contextual indicators concerned with the demographic, social, and economic characteristics of a country.

UNESCO undertook a three-year cycle to develop the framework of Internet Universality Indicators through a global, open, inclusive and multistakeholder process. During the 31st Council Meeting of UNESCO's International Programme for the Development of Communication (IPDC) In November 2018, these Indicators were endorsed.[1] The IPDC supported the use of the instrument on a voluntary basis by member states terming it a useful resource accessible to Member States and stakeholders. The support is through the assessment of national Internet growth using the Internet Universality Indicators.

UNESCO has been working with various stakeholders in different countries in implementing this decision. This has been through the engagement of stakeholders who conduct national assessments based on the Indicators framework. It is in light of this that KICTANet expressed interest and ultimately partnered with UNESCO to undertake Kenya's assessment.

The objectives of the assessment of the UNESCO Internet Universality Indicators include:

1. Developing a clear and substantive understanding of the national Internet environment and of Internet policies contributing to sustainable development;
2. Assessing the environment and policies in relation to the implementation of UNESCO's ROAM principles; and,
3. Formulating policy recommendations that can help improve Internet development in Kenya.

1 Decisions taken by the 31st Council Session of the International Program for the Development of Communication (IPDC), 21-22 November 2018, UNESCO HQ https://unesdoc.unesco.org/ark:/48223/pf0000266235

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National Context of the Assessment initiative

Kenya's Internet access and use subscription has been on the rise over the past decade. By September 2019, it stood at 52 million, of which 25.2 million subscriptions were broadband connections, while mobile subscriptions stood at 53.2 million.[2] Many people access the Internet from their mobile phones or other SIM enabled devices. This has placed Kenya as an ICT progressive nation in the Eastern Africa Region. The country has been active in national, regional and global Internet discourses. It is therefore natural that the country was selected to participate in this assessment of Internet Universality Indicators.

These indicators were developed to allow countries to carry out a deeper analysis of the Internet Universality concept at country level using the UNESCO framework of indicators. Accordingly, the exact purpose of this framework of Internet Universality Indicators is to facilitate interested governments and other stakeholders that may want to voluntarily evaluate their national Internet environments as a means of formulating evidence-based policy. In addition, these Internet Universality indicators are based on the previous experience of UNESCO with media and communications-related indicator frameworks. The indicator system for the Internet Universality Indicators is further intended to support efforts by the United Nations and other stakeholders to track and assess progress and achievement of the SDGs.

Methodology

KICTANet commenced this survey on September 3, 2019 and completed on April 14, 2020. The assessment methodology was based on UNESCO's Implementation Guide for conducting national assessments based on the ROAM-X framework.[3] The implementation of the framework involved careful planning and execution of the eight steps outlined in the guide. The process commenced with the establishment of the Multistakeholder Advisory Board; building a collaborative

2 Communications Authority of Kenya (CA). Second Quarter Sector Statistics Report for the Financial Year 2019/2020 (October-December 2019) https://ca.go.ke/wp-content/uploads/2020/03/Sector-Statistics-Report-Q2-2019-2020-1.pdf

3 UNESCO's Internet Universality Indicators: A Framework for Assessing Internet Development https://unesdoc.unesco.org/ark:/48223/pf0000367617/PDF/367617eng.pdf.multi

research team; developing a research action plan; data gathering; data analysis; report-writing and recommendations; and the organizing of a national validation multistakeholder workshop and conducting related advocacy activities. The last step, which is the Impact assessment and monitoring will be done at a later date.

The data gathering and data analysis process included the desktop review of relevant ICT literature including policies, laws, reports and documents. Assessment of some indicators required interviews with select experts, and KICTANet was able to conduct the interviews with key select interviewees. Also, there was a request to the Regulator to provide certain information that is not available publicly, and some discussion to seek information was obtained from the KICTANet mailing list. The findings in the form of a draft report were shared with the Multistakeholder Advisory Board (MAB) as well as an external expert as part of the peer review process.

A consultative validation meeting was convened in February 2020 which brought together industry stakeholders and the MAB. The feedback obtained from the external reviewers and the meeting were incorporated into the report.

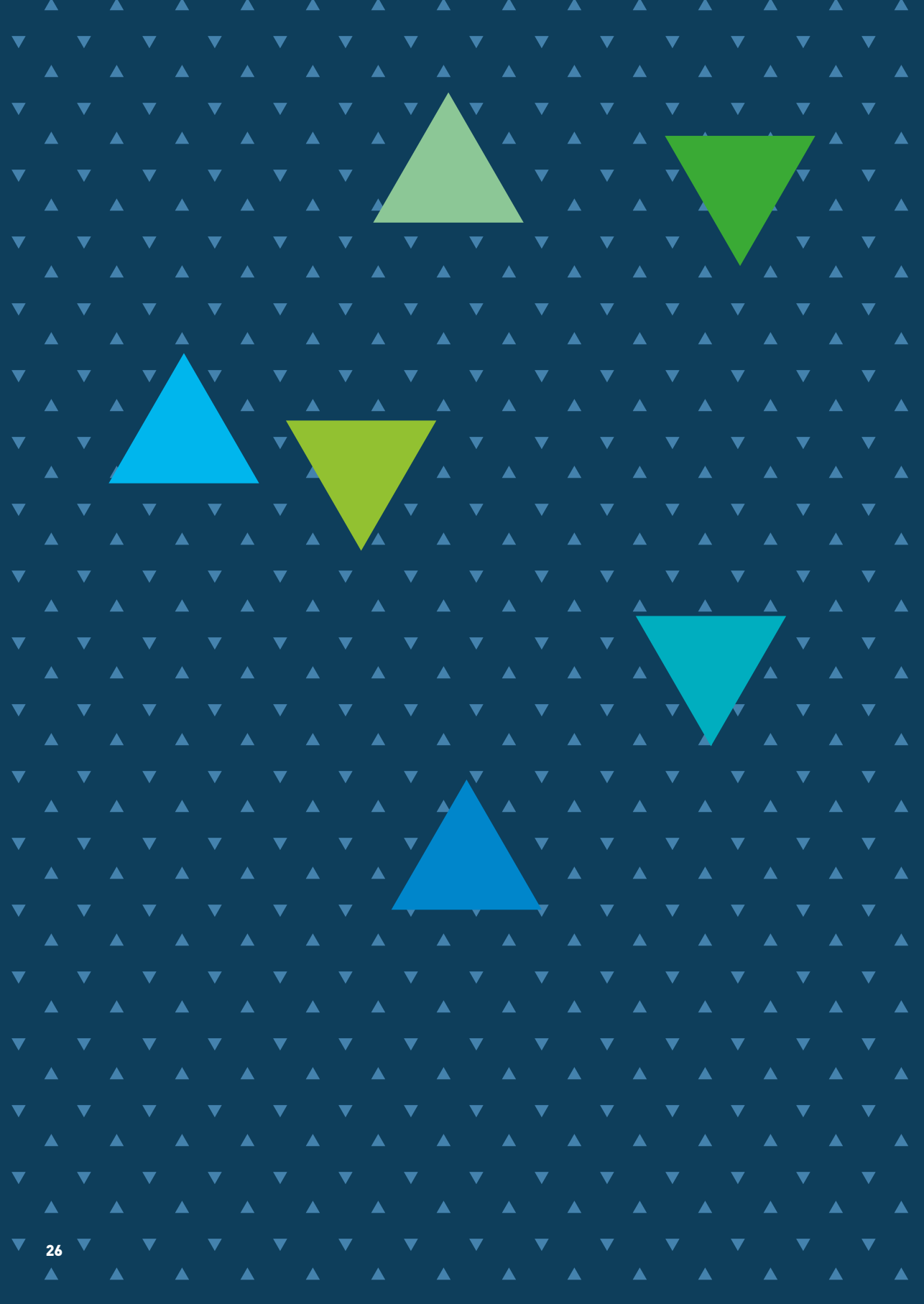
Structure of the Report

This report is organized around the context of the Internet Universality Indicators. It addresses the four ROAM Principles, and the cross-cutting issues such as gender and children's needs, sustainable development, trust and security, and the Internet's legal and ethical dimensions. Together, these form the framework for ROAM-X Indicators, and accordingly each is articulated in a separate chapter.

Moreover, contextual indicators have also been assessed. They include the country's economic, demographic, development, equality, governance and ICT development characteristics. The aim is to contextualize the findings of the report in terms of the conditions that are unique to Kenya.

The report commences with an introduction to the UNESCO Internet Universality Indicators. The Contextual Indicators on areas as economic, demographic, development, equality, governance and ICT development are highlighted. Then the five ROAM-X categories are covered. Each category is divided into a number of themes, and there are six themes in the R and A categories, five themes in the O and C categories, and three themes in the M category.

Several questions are set out within each theme addressing the specific points on which national performance is assessed and on which evidence is used for assessment. Further, one or more indicators are identified for each question to provide the evidence base for the assessment of the question, and a finding is made for each indicator. Each category includes policy recommendations specific to various stakeholders such as government, civil society, academia, media and so forth. Finally, conclusions from the findings of each category are summarized and key priority recommendations are formulated in terms of relevance to stakeholder groups.



2

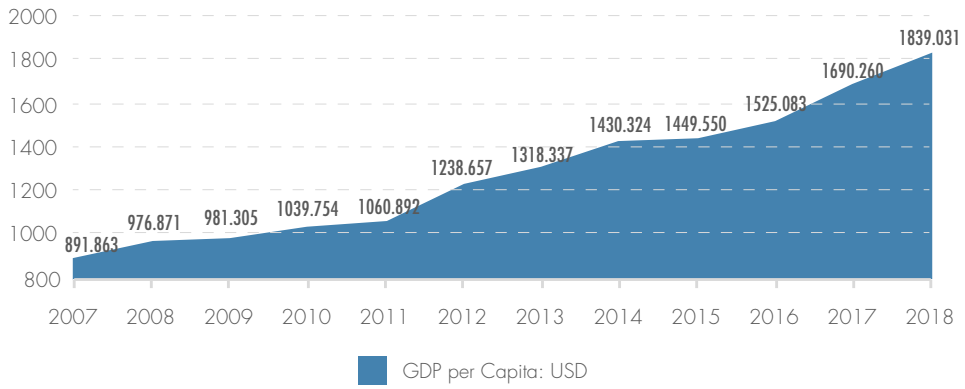
CONTEXTUAL INDICATORS: **FINDINGS**

Kenya is East Africa's commercial, financial and transport hub with the International financial institutions and donors being key to Kenya's economic growth and development. The country's administration has been successful in courting external investment for development and for instance, Kenya's President Uhuru Kenyatta in the beginning of 2020 secured major investment deals at the UK-Africa Investment Summit.[4] Kenya has also been successful in raising capital in the global bond market.

ECONOMIC Indicators

Kenya is ranked as a lower middle income country.[5] Its real GDP growth is estimated to be at 5.7 percent with a projection of 5.9 percent growth forecast for 2020.[6] This places Kenya as the 62nd largest economy in the world by the International Monetary Fund (IMF).[7]

Figure 1. Kenya's GDP per Capita from 2006 to 2018 in the chart



Source: WWW.CEICDATA.COM | CEIC Data

4 Nyambega Gisesa. *Uhuru secures Sh170 billion investment deals at UK-Africa summit.* January 20, 2020. https://www.nation.co.ke/news/Uhuru-secures-Sh170bn-investment-deals/1056-5425412-987abh/index.html

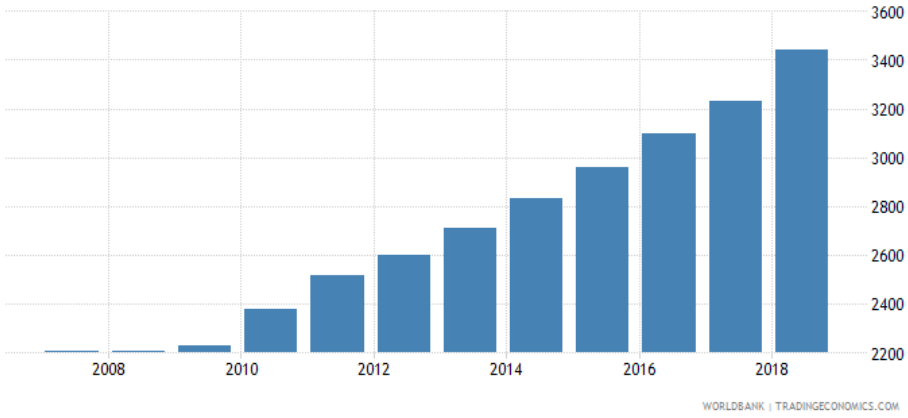
5 CIA World Factbook. *Kenya Economy: an overview.* December 7, 2019. https://www.indexmundi.com/kenya/economy_overview.html

6 Capital FM. *World Bank revises downwards Kenya's GDP 2019 growth to 5.7pc.* April 9, 2019. https://www.capitalfm.co.ke/business/2019/04/world-bank-revises-downwards-kenyas-gdp-2019-growth-to-5-7pc/

7 IMF. *Report for selected countries and subjects.* www.imf.org

The current government's development blueprint espouses what is termed as "the Big 4 Agenda". These 4 agendas are; food security, affordable housing, manufacturing, and affordable healthcare. It is anticipated that the investments to support implementation of the Big 4 Agenda and enhanced business sentiment will contribute to enhanced economic growth.[8] Further, the agenda is aligned to Kenya's Vision 2030 development blueprint[9] whose aim is to "transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment".

Figure 2. Gross National Income (GNI) (purchasing power parity) per capita



GNI per capita, PPP (current international $) in Kenya was reported at 3440 in 2018. Source: the World Bank.

Agriculture continues to be the backbone of the Kenyan economy with a contribution of a third of the country's GDP.[10] About 75 percent of Kenya's approximately 47.6 million[11] population works in the agricultural sector at least part-time. This includes livestock and pastoral activities. Tourism also holds an important place in the economy of Kenya. Others are the telecommunications, transport and construction sectors.

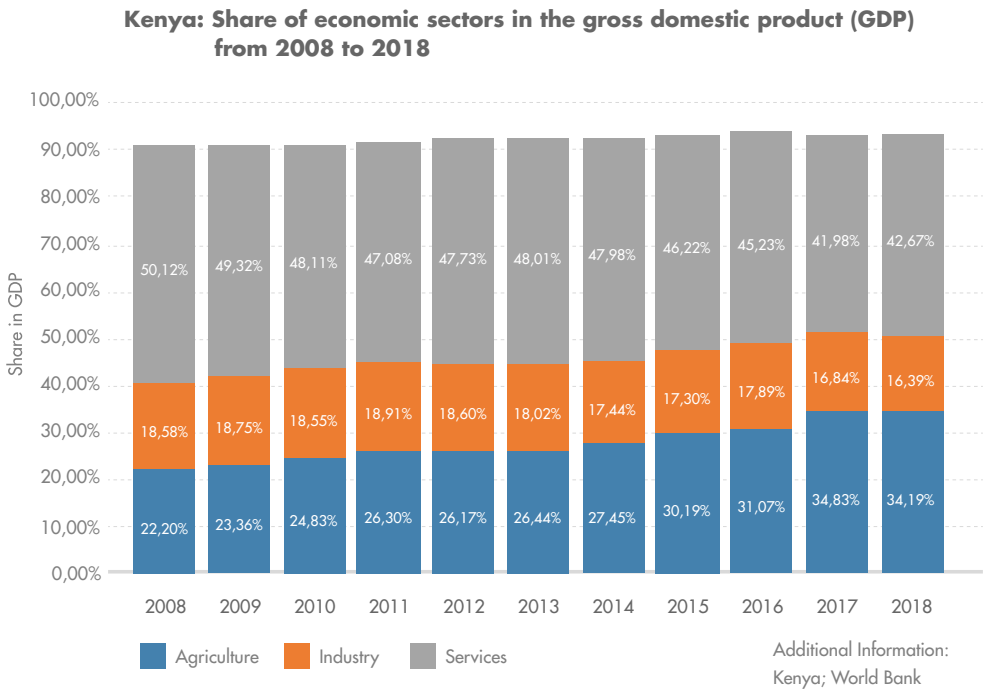
8 *The World Bank in Kenya.* September 30, 2019. https://www.worldbank.org/en/country/kenya/overview

9 Kenya's Vision 2030. http://vision2030.go.ke/

10 Index Mundi. Kenya Economy Profile 2019. https://www.indexmundi.com/kenya/economy_profile.html

11 2019 Kenya Population and Housing Census Results https://www.knbs.or.ke/?p=5621

Figure 3. Proportion of GDP attributable to services



Source: World Bank © Statista 2020

The country has an increasing entrepreneurial middle class and steady growth. However, poor governance and corruption continue to hamper the country's economic and development path. Further, while it is difficult to find accurate numbers, unemployment and underemployment remain high affecting 40 percent of the population.[12] For instance in 2019, over three hundred and eighty eight companies and firms were wound up in a span of six months.[13] Apart from the growing concern about massive job losses in Kenya's private sector, it is also seen as a reflection of the performance of many of the country's major corporations that reported job cuts in 2019.

12 Ibid

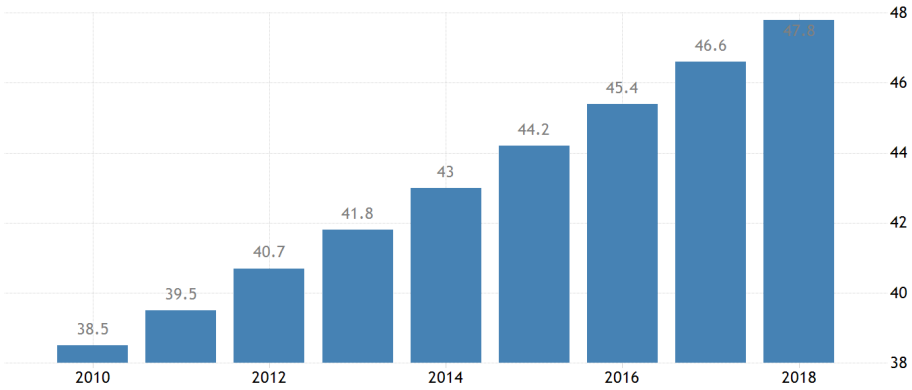
13 Frankline Sunday. Alarm as 388 Kenyan firms dissolved in 6 months. September 21, 2019. https://www.standardmedia.co.ke/business/article/2001342752/alarm-as-388-kenyan-firms-dissolved-in-6-months

DEMOGRAPHIC Indicators

Kenya lies on the equator where it borders the Indian Ocean, Uganda, Tanzania, Ethiopia, South Sudan and Somalia.[14] According to its 2020 population census, the country has an estimated 47,564,296 million people (24 million women and 23.6 men) compared to 38.6 million in 2010.[15]

Kenya's population rose by 2.2 percent annually (approximately a million people yearly) from 2009 to 2019 to stand at 47.6 million, which is a decrease in growth rate from 2.9 percent in the previous 10-year period.[16]

Figure 4. The population growth trend



SOURCE: TRADINGECONOMICS.COM | KENYA NATIONAL BUREAU OF STATISTICS

As shown in Figure 4 above, the country's growth rate remains rapid in global terms. It is anticipated that the fertility rate will decrease and will result in the population growth rate decreasing to 1.5% by 2040. At that point it will be the 42nd fastest growing population in the world and the 38th fastest growing population in Africa.[17] In 2017, the country had a projected life expectancy of 67 years, which is still short of the global expectancy of 72 years.

14 World Population Review. *Kenya Population 2020*. http://worldpopulationreview.com/countries/kenya-population/

15 Hellen Githaiga. *Kenya census 2019 data reveal population stands at 47.6m*. November 4, 2019. https://www.theeastafrican.co.ke/news/ea/Kenya-population-soars-to-47-million-2019-census/4552908-5336048-7bv3toz/index.html

16 Pauline Kairu. *Kenya's growth rate now at 2.2pc - Census*. November 9, 2019. https://www.theeastafrican.co.ke/news/ea/Kenya-growth-rate-now-at-2-2-percent-census/4552908-5343306-1501ok2z/index.html

17 African Studies Center, *East Africa living encyclopedia*, https://www.africa.upenn.edu/NEH/kethnic.htm

This draws attention to the severity of the burden of disease and healthcare in the country. That being the case, the country has the 31st youngest population in the world.[18]

Moreover, the country has a diverse ethnic composition and is home to 43 official ethnic groups. However, the number might be as high as 60 if smaller groups are included. Kiswahili and English are the two official languages.[19] Moreover, rapid urbanisation continues to place huge pressure on the country's infrastructure, institutions and land. It is estimated that three-quarters (36.6 million) of Kenya's population live in rural areas.Since, households in rural areas are twice as likely to have more members than their urban counterparts, it is estimated that Kenya's urban population will increase by 9 million to reach 21.8 million by 2030, while the rural population will rise by nearly 8 million to reach 43.3 million by 2030.[20]

DEVELOPMENT
Indicator

Kenya's 2018 Human Development Index (HDI) rating was 0.579, which placed the country in the medium category of human development. The country ranked 147 out of 189 countries and territories.[21] However, the HDI value has risen from 0.467 to 0.579, an increase of 23.9 percent between 1990 and 2018. As shown in the Table 1 below, between 1990 and 2018, the country's life expectancy rose by 8.9 years at birth, while the mean years of schooling increased by 2.8. In addition, the anticipated years of schooling grew by 2.0 years, while Kenya's Gross National Income (GNI) per capita rose by 34.7 percent.[22]

Table 1. Kenya's HDI trends

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
1990	57.5	9.1	3.7	2,297	0.468
1995	53.9	8.7	4.5	2,130	0.456
2000	51.8	8.4	5.3	2,112	0.451

18 Institute of Security Studies. *Kenya to 2030 and beyond.* 2018. https://issafrica.s3.amazonaws.com/site/uploads/kenya-report.pdf

19 African Studies Center, *East Africa living encyclopedia*, https://www.africa.upenn.edu/NEH/kethnic.htm

20 Institute of Security Studies. *Kenya to 2030 and beyond.* 2018. https://issafrica.s3.amazonaws.com/site/uploads/kenya-report.pdf

21 UNDP. Human Development Report 2019 Inequalities in Human Development in the 21st Century. http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KEN.pdf

22 Ibid.

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
2005	55.8	9.4	5.8	2,223	0.490
2010	62.9	10.7	6.1	2,467	0.543
2015	66.7	11.7	6.3	2,806	0.578
2016	67.0	11.9	6.4	2,898	0.585
2017	67.3	12.1	6.5	2,961	0.590

SOURCE: UNDP

Kenya's HDI for 2018 stood at 0.579. Nonetheless, when the value for inequality is discounted, the HDI decreases to 0.426, which is a loss of 26.3 percent due to disparity in the distribution of the HDI factor indices.[23] When considering gender inequalities, three dimensions are taken into consideration namely: reproductive health, which is evaluated by maternal mortality and adolescent birth rates; empowerment, assessed by the proportion of parliamentary seats held by women, as well as the attainment by class of secondary and higher education; and , economic activity, gauged by the rate of participation of women and men in the labor market. In Kenya, women hold 23.3 percent of parliamentary seats, and 29.8 percent of adult women have at least completed secondary education, compared to 37.3 percent of their male counterparts.[24] Also, 510 women die of pregnancy-related causes for every 100,000 live births; with the teen birth rate being 75.1 births per 1,000 women between the ages 15-19.

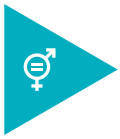
The government recognizes the need to have literate citizens and puts in measures to improve the adult literacy rates. It also provides basic education and training opportunities to out-of-school youth and adults who either missed their chances in the formal education system in their childhood, or dropped out of school before acquiring sustainable literacy skills.[25] The rate of access to electricity in Kenya is deemed the highest in East Africa standing at 73.42 percent as at the end of April 2018. This is as a result of diverse national electrification projects embarked on by Kenya Power, which is responsible for electricity distribution.[26] In addition, there has been rapid investment in the distribution network and increased investment in renewable energy generation. Accordingly, the national access rate has gradually grown over the past five years from a low of 32 percent in 2013.

23 Ibid.

24 Ibid.

25 Kenya's Ministry of Education. *Basic Education Programme Rationale and Approach 2013 - 2018*. www.education.go.ke

26 Margaret Njugunah. *Kenya has the highest access to electricity in East Africa: WB Research*. May 8, 2018. https://www.capitalfm.co.ke/business/2018/05/kenya-has-highest-access-to-electricity-in-east-africa-wb-research/



EQUALITY
Indicators

According to the 2018 Global Gender Gap Report, Kenya ranked 76th globally in tackling the gender gap.[27] On the other hand, the World Economic Forum's Global Gender Gap Report 2020, ranked Kenya 109 out of the 153 countries that were rated on their progress towards gender parity in 2019.[28] Women in the country have over the years, endured systemic marginalization and discrimination. However, in recent years, the country has taken important steps to address the issue, including by instituting legal, policy and institutional reforms to promote gender equity. For example, the country's constitution in its bill of rights provides for the right to equality and freedom from discrimination. Further, it also establishes the National Gender and Equality Commission (NGEC) as a constitutional commission to promote gender equality and freedom from discrimination in the country.

The constitution also imposes a gender quota requirement to ensure that no single gender holds no more than two-thirds of elective and appointive positions in the public service. While in the case of appointive positions the rule is attainable, it continues to be a challenge in elective positions and in the private sector. For instance, in the Nairobi Securities Exchange-listed companies, women account for only 26 percent of the management positions,[29] and only 21 percent of the board members in listed companies are women.

In addition, the country has made headway in areas such as maternal mortality, attaining gender parity in primary education enrolment and is approaching parity in secondary education.[30] However, weak implementation and the lack of gender responsive budgeting has impacted the legal and policy frameworks for gender equity. Accordingly, there are still many women who have no access to basic services. They also remain underrepresented in decision-making positions and political roles. If women's profiles were improved in all sectors, a reduction in gender disparities would ultimately benefit not just women, but men, children, the rich as well as the poor and the entire society in general.

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27 Adonijah Ochieng. Kenya making only modest progress in closing gender gap. January 27, 2019. https://www.businessdailyafrica.com/datahub/Kenya-making-only-modest-progress-in-closing-gender-gap/3815418-4924942-jwlpeu/index.html

28 Francis Mureithi. Political participation for Kenyan women yet to meet the constitutional provision. January 2, 2020. https://www.nation.co.ke/gender/Kenya-ranked-109-out-of-153-gender-equality--/5362750-5404928-5odwusz/index.html

29 Adonijah Ochieng. Kenya making only modest progress in closing gender gap. January 27, 2019. https://www.businessdailyafrica.com/datahub/Kenya-making-only-modest-progress-in-closing-gender-gap/3815418-4924942-jwlpeu/index.html

30 Data Hub. *Gender Equality Context in Kenya*. https://data.em2030.org/countries/kenya/

GOVERNANCE
Indicators

Kenya's ranking rose from position 19 to 11 in the 2018 Ibrahim Index of African Governance report. The report produced by Mo Ibrahim Foundation evaluated contemporary progress in governance and in long-term performance. There has been remarkable progress noted in the last five years.[31] In the economic score which measures the extent to which the government facilitates citizens to pursue economic aspirations in order to flourish, Kenya ranked eighth, which again was termed remarkable.[32] Likewise, the country ranked eighth on the human development indicator with 79 percent. This measures the ability of a government e to extend to its citizens services such as poverty mitigation and alleviation, educational advancement, healthcare and medical and sanitary services. Notably, Kenya was the only country singled out of 10 African countries as having the largest gross domestic products in 2017, which the report notes to have enhanced the business environment.[33]

Other areas which were assessed included the independence of the judiciary scoring 76 percent, property rights attaining 61 percent, a well-organized power transfer mechanism scored 66.7 percent, the freedom of expression indicator scored 66.7 percent, and fostering gender equality scored 71.7 percent. However, the country scored dismally in safety and rule of law which were ranked at position 23, despite being placed in the 11th position on overall governance. In addition, the dismal performance on participation and human rights categories resulted in the country being flagged as "warning signs." This indicator measures civil and political rights and freedoms through evaluating citizen participation in the political and electoral actions, recognition of fundamental rights, and gender recognition.

31 Justus Ochieng. *Kenya ranked 11 in Africa governance score.* October 29, 2018. https://www.nation.co.ke/news/Kenya-ranked-11-in-Africa-governance-score/1056-4826624-hcian9/index.html

32 Ibid.

33 Ibid.

ICT DEVELOPMENT
Indicators

The country's ICT sector has remained robust. In the Global Innovation Index (GII) 2019 survey, Kenya was ranked the second-leading innovation center in sub-Saharan Africa by the World Intellectual Property Organization.[34] Further, the country has a track record of high levels of innovation, outperforming innovation levels with respect to GDP for the ninth consecutive year. According to the World Bank's Global information Technology report, Kenya's ICT Patent Cooperation Treaty (PCT) patents rose 0.06% between 2012 and 2016. By August 2016, approximately 725 patents had been granted by the Kenya Industrial Property Institute (KIPI).[35] Out of these, 557 were filed under PCT. This translated into 77% of patents.

Mobile Connectivity Index

The number of mobile subscriptions (SIM Cards) in the country stood at 53.2 million as at 30th September 2019,[36] which translates to a mobile penetration rate of 112.0 percent. This upward trajectory of mobile penetration can be attributed to the availability of mobile signals, and diverse traditional mobile services. The population covered by 2G and 3G is 96 percent and 93 percent respectively.[37]

Initiatives that aim to close access gaps in voice infrastructure and school broadband connectivity projects have been carried out under the Universal Service Fund (USF). Others include the enforcement of operator's license obligations and licensing of supplementary frequencies that support mobile services. All these are spearheaded by the sector regulator, the Communications Authority.

Over the past few years, the Internet market in the country has continued to show positive growth. The number of data and Internet subscriptions has grown to 52 million, with 48.5 percent (25.2 million subscriptions) being broadband. Several factors are attributed to this growth. They include the expansion of 3G and 4G coverage, availability of low cost smartphones and cheap data plans, the rise in utilization of e-commerce, e-government, social media and online content.[38]

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34 KENINVEST. *Kenya ranked top tech hub in Sub-saharan Africa*. August 15, 2019. http://www.invest.go.ke/kenya-ranked-top-tech-hub-sub-saharan-africa/

35 VICTOR Nzomo. *Do patents utility models encourage innovations in Kenya?* March 17, 2017. Centre for Intellectual Property and Information Technology Law (CIPIT). https://blog.cipit.org/2017/03/13/new-cipit-research-do-patents-utility-models-encourage-innovation-in-kenya/#comments

36 Communications Authority of Kenya. FIRST QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2019/2020 (JULY - SEPTEMBER 2019). https://ca.go.ke/wp-content/uploads/2019/12/Sector-Statistics-Report-Q1-2019-2020.pdf

37 Ibid

38 Ibid

E-Commerce

Kenya's Digital Economy Blueprint aims to provide a conceptual framework to guide the realisation of a sustainable digital economy.[39] It also highlights the importance of investing in a digital economy. The country is one of the world's leading proponents of financial inclusion that has seen the proliferation of digital finance and payment platforms such as Mpesa, Mula, PesaLink and Pesapal gain wide usage in the country.[40] The increased adoption of these technologies continues to facilitate transactions and therefore enhance trade for individuals and small and medium-sized enterprises (SMEs).

In addition, the country has a high number of active mobile money subscribers, and agents who by the end of 2019 stood at 31.2 million, and 235.168 respectively.[41] Towards the end of 2019, 425.3 million mobile trading transactions valued at Kenya shillings 1.6 trillion were spent on online purchases of goods and services.[42]

The 2016 Networked Readiness Index 2016 ranked Kenya at position 86, with a value of 3.8.[43] Further, Kenya was ranked 89th in the UNCTAD B2C E-commerce Index, 2018. However, it was among the top ten African countries in the index, ranking seventh Mauritius, Nigeria, South Africa, Tunisia, Morocco and Ghana.[44] Further, producing and retaining higher level ICT skills needs a measured approach to complete the picture in the business end user environment. With regard to market demand, in both the business and residential segments, there is relatively good uptake of various ICT services though costs (of devices and some services), quality and access (last mile and backhaul) still hold back citizens and businesses from more wholesome consumption of ICT.

Overall, given the considerable actions taken by the government in the ICT sector over the last four to five years, which are starting to bear fruit, there is still great opportunity to address some issues including ICT skills, access (to devices and services), costs (of devices and services) and generally nurture increased usage among both businesses and residents. In some instances, the interventions recommended by IDC include easy to execute awareness campaigns while others touch on existing plans by the sector regulator (Universal Access Fund and subsidies) and multistakeholder intervention (academia, government and business in revising ICT curricular, collaborating through various PPPs, etc).

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39 Digital Economy BluePrint: Powering Kenya's Transformation. https://www.ict.go.ke/wp-content/uploads/2019/05/Kenya-Digital-Economy-2019.pdf

40 Ibid

41 Communications Authority of Kenya. FIRST QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2019/2020 (JULY - SEPTEMBER 2019).

42 Ibid.

43 2016 Networked Readiness Index http://www3.weforum.org/docs/GITR2016/WEF_GITR_Chapter1.1_2016.pdf

44 UNCTAD B2C E-commerce Index 2018 https://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d12_en.pdf

On ICT skills, the growth of ICT professionals and the levels of skills in Kenya hinges largely on: the size and number of both local and international large organizations; the level of maturity and sophistication in their ICT setups; and the growth of the SME segment as a key consumer. Inherent are concerns on how to retain staff that have acquired extensive experience (after a major project), who may need to grow further or use that experience in another organization and cannot do so in the local market and therefore elect to seek opportunities outside Kenya.

On the other hand, in the supply side, some market players that secure windfall opportunities that are not likely to recur any time soon, temporarily import skills to implement and manage large projects and do so outside any framework that ensures transfer of skills to local professionals. Thus, the issue of skills when viewed broadly and at higher cadres, presents a double-edged sword that requires a measured approach factoring in the needs of the market, growth of the market, and the resulting demand for such skills.

The changing ecosystem indicates that the various developments in the sector, including a unified telecommunications licensing regime, infrastructure developments, and technological advances, have caused the local ICT Ecosystem to undergo some metamorphosis that has gradually seen the lines blurred between traditional telecom companies and ICT service providers. With voice services nearing saturation, coupled with lower tariffs, telcos have been compelled to re-think their strategies away from both voice services and the mass market towards data. Kenya's focus should be on infrastructure construction as a starter in the early stages of ICT growth. The country's growth prospects will also rely on digital innovation and digital governance if fast, sustained growth is to be achieved.[45]

45 Global Connectivity Index. *Kenya GCI 2019*. https://www.huawei.com/minisite/gci/en/country-profile-ke.html###

R

Rights

3

CATEGORY R
RIGHTS

3

THEME A
Policy, Legal and Regulatory Framework

RA.1 Is there a legal framework for the enjoyment and enforcement of human rights which is consistent with international and regional rights agreements, laws and standards, and with the rule of law?

▶ ***Indicator:*** *Existence of a constitutional or legal framework, including oversight arrangements, which is consistent with international and regional rights agreements, laws and standards, and evidence that it is respected and enforced by government and other competent authorities*

The Constitution of Kenya, 2010 provides a comprehensive Bill of Rights in its Chapter 4 which is largely derived from and is consistent with international human rights instruments.[46] Under Article 2(5), it provides that the rules of international law form part of the laws of Kenya, and also, under Article 2(6), it states that any treaty or convention ratified by Kenya forms part of the laws of Kenya.

Kenya has signed or ratified several instruments, which these provisions have incorporated into the body of law.[47] The country is a State Party to: (a) the International Covenant on Civil and Political Rights (ICCPR), (b) the International Covenant on Social and Economic Rights (ICESR), (c) the Convention against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment (CAT), (d) the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), (e) the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), (f) the Convention on the Rights of the Child (CRC), (g) Convention on the Rights of Persons with Disabilities (CRPD), and (h) the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict.

Likewise, Kenya is a signatory to International Convention for the Protection of all Persons from Enforced Disappearance (CED), and the Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography.

However, the country has yet to take action on the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families; the Optional Protocol to

46 Constitution of Kenya https://www.wipo.int/edocs/lexdocs/laws/en/ke/ke019en.pdf

47 United Nations High Commissioner for Human Rights, 'United Nations Treaty Database'. Available at: https://tbInternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=90&Lang=EN; Status of Ratification: Interactive Dashboard https://indicators.ohchr.org/

the International Covenant on Civil and Political Rights; the Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty; the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights; the Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women; the Optional Protocol to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; the Optional Protocol to the Convention on the Rights of the Child on a communications procedure; and, the Optional Protocol to the Convention on the Rights of Persons with Disabilities.

At the regional level, Kenya is a member of the African Union. It is also a State Party to the African Charter on Human and Peoples' Rights;[48] the Protocol Establishing the Africa Court;[49] the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa;[50] and, the African Charter on the Rights and Welfare of the Child.[51] Further, Kenya is a member of the East African Community, whose Treaty requires adherence to the observance of human rights.[52]

With regards to oversight, Chapter 10 of the constitution establishes an independent Judiciary. Further, under Articles 23 and 165, it grants the High Court jurisdiction to hear and determine petitions on the denial, violation or infringement of, or threat to, a right or fundamental freedom in the Bill of Rights. In addition, under Article 59, it establishes the Kenya National Human Rights Commission (KNCHR)[53] and the National Gender and Equality Commission (NGEC)[54] to promote respect for and compliance with human rights obligations and to monitor and investigate complaints relating thereto. Citizens can proceed to the High Court should any of their rights be infringed or threatened. Kenya has submitted two Periodic State Reports under the African Charter, with the most recent being in November 2015.[55] Further, Kenya has submitted three reports under the Universal Periodic Review process in May 2010, January 2015 and more recently in January 2020.[56]

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48 Ratification Table:- African Charter on Human and Peoples' Rights https://www.achpr.org/ratificationtable?id=49

49 African Union, List of Countries which have Signed, Accepted or Ratified the Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights. Available at: https://au.int/sites/default/files/treaties/36393-sl-protocol_to_the_african_charter_on_human_and_peoplesrights_on_the_estab.pdf

50 List of Countries which have Signed, Ratified/Acceded to the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa, available at:https://au.int/sites/default/files/treaties/37077-sl-PROTOCOL%20TO%20THE%20AFRICAN%20CHARTER%20ON%20HUMAN%20AND%20PEOPLE%27S%20RIGHTS%20ON%20THE%20RIGHTS%20OF%20WOMEN%20IN%20AFRICA.pdf

51 List of Countries which have Signed, Ratified/Acceded to the African Charter on the Rights and Welfare of the Child, available at:https://au.int/sites/default/files/treaties/36804-sl-AFRICAN%20CHARTER%20ON%20THE%20RIGHTS%20AND%20WELFARE%20OF%20THE%20CHILD.pdf

52 Treaty for the Establishment of the East African Community https://eacj.org/?page_id=33

53 Kenya National Commission on Human Rights https://www.knchr.org/

54 National Gender and Equality Commission https://www.ngeckenya.org/

55 Kenya https://www.achpr.org/states/detail?id=25

56 Universal Periodic Review - Kenya https://www.ohchr.org/EN/HRBodies/UPR/Pages/KEindex.aspx

RA.2 Is there a legal framework which recognizes that the same rights that people have offline must also be protected online?

▶ ***Indicator:*** *Evidence that the principle of online/offline equivalence is accepted and implemented in law and practice*

While not explicit on the medium, Article 33 of the constitution provides generally for the right to freedom of expression. Article 34 guarantees the freedom of electronic, print and all other types of media; Article 35 provides for the right of access to information; while Article 36 provides for the right to freedom of association. These provisions do not limit their application to the online sphere, in which case, they can be interpreted as having both offline and online equivalence and application. Further, Kenya is also a member of the Freedom Online Coalition[57] which is a group of governments committed to working together to support and promote Internet freedom and protect fundamental human rights such as freedom of expression, association, assembly and privacy online.

THEME B
Freedom of Expression

RB.2 Are any restrictions on freedom of expression narrowly defined, transparent and implemented in accordance with international rights agreements, laws and standards?

▶ ***Indicator:*** *Legal restrictions on freedom of expression that are consistent with international and regional rights agreements, laws and standards, and evidence that these are respected by government and other competent authorities.*

The legal threshold for the limitation of the fundamental freedoms contained in the Bill of Rights is found in Article 24 of the constitution. The provision lays down the parameters for the lawful limitation of fundamental rights and freedoms provided for in the Bill of Rights. Under this provision, a right can only be limited pursuant to a prescribed law, and only to the extent that

57 Freedom Online Coalition https://freedomonlinecoalition.com/about-us/members/

the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors.

Further, a more specific limitation of the right to freedom of expression is found under Article 33(2), which provides that the right does not extend to: propaganda for war, incitement to violence, and hate speech or advocacy for hatred on ethnic grounds or any ground of discrimination specified in Article 27(4) of the Constitution.

Further to this, some Statutes provide specific limitations to the right to freedom of expression. For example, section 35(3)(c) of the Prevention of Terrorism Act, 2012 limits the rights to freedom of expression, media, conscience, religion, belief, and opinion to the extent necessary to prevent the commission of an offence under the Act.[58] Likewise, Section 33(1) of the National Intelligence Service Act, 2012 limits freedom of expression to the extent that it is done: in the interest of national security, public safety, public order, public morality or public health; for the purpose of protecting the integrity of Service operations; to protect the reputation, rights and freedoms of the members or private persons concerned in legal proceedings; to prevent the disclosure of information received in confidence; to regulate the technical administration or the technical operation of telecommunication, wireless broadcasting, communication, Internet, satellite communication or television; or for the security and protection of information within the Service. The National Cohesion and Integration Act, 2008 defines the offence of hate speech and provides for various penalties to stop its spread.[59]

There have been instances where statute limitations on freedom of expression have exceeded constitutional parameters, and the courts have been petitioned to stop the violations. In the case of *Geoffrey Andare v Attorney General & 2 others*,[60] the High Court of Kenya held that section 29 of the Kenya Information Communication Act was unconstitutional for violating Article 33 of the Constitution. The section provided that:

> "a person who by means of a licensed telecommunication system: sends a message or other matter that is grossly offensive or of an indecent, obscene or menacing character; or sends a message that he knows to be false for the purpose of causing annoyance, inconvenience or needless anxiety to another person, commits an offence and shall be liable on conviction to a fine not exceeding fifty thousand shillings, or to imprisonment for a term not exceeding three months, or to both."

58 Prevention of Terrorism Act http://www.vertic.org/media/National%20Legislation/Kenya/KE_Prevention_Terrorism_Act.pdf

59 National Cohesion and Integration Act http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/NationalCohesionandIntegrationAct_No12of2008.pdf

60 *Geoffrey Andare v Attorney General & 2 others*, Petition No.149 of 2015 [2016] eKLR, available at: http://kenyalaw.org/caselaw/cases/view/121033/

Similarly, in the case of *Jacqueline Okuta & Another v Attorney General & 2 others*,[61] the High Court found the offence of criminal defamation under section 194 of the Penal Code unconstitutional as it violated Article 33 of the Constitution as well as regional and international standards of freedom of expression such as the United Nations Human Rights Committee General Comment No. 47 and Resolution 160 of the African Commission on Human and Peoples' Rights adopted on 24 November 2010.

Enjoyment of freedom of expression continues to face challenges. This is largely with respect to the expression of political opinions, criticism of government and calls for accountability of government in relation to official corruption and human rights violations. The government has enforced censorship through the use of threats and intimidation; the use of the Penal Code, Non-governmental organizations Coordination Act and the Prevention of Terrorism Act, and, the surveillance of mobile[62] and Internet communications.[63]

In 2019, the National Cohesion and Integration Commission condemned publication of photos by blogger Robert Alai of Administration Police Officers who were killed in Wajir following a terror attack.[64] The National Police Service stated that the act was unpatriotic, uncouth and disrespectful to the family of the departed officers. Alai bowed to pressure and took down the photos.

RB.4 Under what conditions does the law hold platforms and other online service providers liable for content published or shared by users on them?

▶ ***Indicator:*** *Legal framework for intermediary liability and content regulation is consistent with international and regional rights agreements, laws and standards, and evidence concerning proportionality of implementation*

Kenya does not have a specific legal and policy regime for intermediary liability, especially for online content. However, several legislation such as: the Kenya Information and Communication

61 *Jacqueline Okuta & Another v Attorney General and 2 Others*, Petition Number 397 of 2016 [2017] eKLR, available at: http://kenyalaw.org/caselaw/cases/view/130781/

62 Freedom House report 2018 Available at: https://freedomhouse.org/report/freedom-world/2018/kenya

63 Freedom House Report 2019 Available at: https://freedomhouse.org/report/freedom-world/2019/kenya

64 Mireri Junior, 'NCIC condemns circulation of gruesome photos of Wajir attack victims', (17 June 2019, Standard Digital) available at: https://www.standardmedia.co.ke/article/2001330283/ncic-condemns-circulation-of-gruesome-photos-of-wajir-attack-victims

Act,[65] Sexual Offences Act,[66] National Cohesion and Integration Act 2008,[67]Prevention of Terrorism Act 2012[68] provide for circumstances where intermediaries may be found liable for content on their platforms, especially where the term "distribution" as used in the laws is widely interpreted.

THEME C
Right of Access to Information

RC.2 Does the government block or filter access to the Internet as a whole or to specific online services, applications or websites, and on what grounds and with what degree of transparency is this exercised?

▶ ***Indicator:*** *Legal framework for blocking or filtering Internet access, including transparency and oversight arrangements*

The right of access information is guaranteed under Article 35 of the constitution. Therefore, every citizen has the right of access to information held by the state, and information held by another person required for the exercise or protection of any right or fundamental freedom. The state is also obligated to publish and publicize information of public importance. The Access to Information Act, 2016[69] provides the framework for public and private entities to access and disclose information on request subject to constitutional principles. However, certain types of information cannot be disclosed.[70] The Act provides for an appeal mechanism, within thirty days of a public entity's decision on an access to information request to the Office of the Ombudsman.[71]

65 s.29-improper use of a computer system to send obscene or false information meant to cause annoyance, s.30 -intentional modification or interference of the contents of a message, s.31- disclosure and interception of messages outside the cause of ordinary business.

66 s.12 distribution or display of any article that promotes sexual offence with a child, s.14-prints or publishes any information intended to facilitate child sex tourism and s.16 distribution of child pornography.

67 s.62(2) racial or ethnic contempt by newspaper, radio station or media enterprise that publishes utterances that incite violence, hatred or discrimination against any person.

68 s.27-publication, distribution of information intending to incite person(s) to carry out a terrorist act.

69 Access to Information Act No.36 of 2016, available at: http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/AccesstoInformationActNo31of2016.pdf

70 ibid section 6.

71 ibid section 14.

There is no specific legislation that permits the blocking or filtering of the Internet or specific online services, applications or websites. Kenya's constitution provides several safeguards to ensure the realization of human rights. Further, Article 10 requires government officials to apply the national values and principles of governance such as human rights, integrity, transparency, and the rule of law, whenever they make public policy decisions.

However, there are a number of laws that could potentially be used as a basis to filter access to the Internet or to specific online services, applications or websites. Article 58 and 132(4)(d) of the constitution provide that a state of emergency can be declared by the National Assembly when the State is threatened by war, invasion, general insurrection, disorder, natural disaster or other public emergency for a maximum of 14 days. In such an instance, certain rights may be limited. However, the declaration must specify the right limited, and the limitation must be strictly required for the emergency.

At the statute level, the Prevention of Terrorism Act 2012 under section 35, provides for the limitation of the right to privacy, freedom of expression, the media and of conscience, religion, belief and opinion to the extent of preventing the commission of an offence under the Act. This is done for the purpose of carrying out an investigation of a terrorist act; the detection and prevention of a terrorist act; or that the enjoyment of the rights and fundamental freedoms by an individual does not prejudice the rights and fundamental freedom of others. These could lead to the limitation of access to the Internet for persons being investigated under the Act.

Also, section 4 of the Preservation of Public Security Act empowers the President to make regulations censoring, controlling or prohibiting the communication of any information, or of any means of communicating or of recording ideas or information, including any publication or document, and the prevention of the dissemination of false reports in order to preserve public security. This could lead to the limitation of access to the Internet.

Moreover, section 47 of the National Police Service Act limits the right to freedom of expression for police officers to the extent of protecting classified information. The National Intelligence Service Act under section 33(1) limits the freedom of expression of a member of the service for among others, the security and protection of information within the Service.

▶ ***Indicator:*** *Evidence in government and court decisions, and from other credible and authoritative sources, concerning blocking or filtering of access*

There have been incidences where national regulators have intervened to stop the sharing of information online. In September 2012, the Communications Authority issued guidelines to mobile network operators and other communications licensees in order to prevent dissemination

of political inflammatory messages.[72] Likewise, in June 2017, the Kenya Films Classifications Board banned select children's television shows from being broadcasted on the web and TV broadcasts for ostensibly promoting homosexuality in violation of "moral values.[73]

▶ ***Indicator:*** *Incidence, nature and basis for shutdowns or other restrictions on Internet connectivity*

Kenya has not had instances where there have been Internet shutdowns. However, there is some evidence of restrictions of Internet access. In March 2017, the Centre for Intellectual Property and Information Technology Law discovered middle-boxes in Safaricom's network.[74] The report noted that middle-boxes have dual use including legitimate purposes such as network optimization and traffic manipulation as well as surveillance and censorship. However, Safaricom's technical team denied the presence of middle-boxes on their networks, and two days later, a test conducted on the Safaricom networks showed the absence of middle-boxes.

Ahead of the 2017 general election, speculation was rife that the government would resort to blocking the Internet to prevent hate speech on social media platforms.[75] Civil society organizations advocated for an open Internet even ahead of elections[76] and Kenya ICT Action Network gave a legal and policy analysis against an Internet shutdown during elections in Kenya.[77] In January 2018, the government imposed a two-week shutdown of live broadcasts of major media houses KTN News, NTV Kenya and Citizen TV after the opposition leader, Raila Odinga announced a swearing-in ceremony.[78] The online streams of the stations were also affected.

72 Communications Commission of Kenya, "Guidelines for the Prevention of Transmission of Undesirable Bulk Political Content/ Message via Electronic Communications Networks", September 2012, available at: https://ca.go.ke/wp-content/uploads/2018/02/Guidelines-on-the-Prevention-of-undesirable-bulk-political-content-via-sms.pdf

73 https://freedomhouse.org/report/freedom-net/2017/kenya; Kenya Films Classification Board, Statement on Children Television Programs Promoting Homosexuality in Kenya, 15 June 2017, available at: http://kfcb.co.ke/wp-content/uploads/2017/06/STATEMENT-ON-CHILDREN-TELEVISION-PROGRAMMES-PROMOTING-HOMOSEXUALITY-IN-KENYA-ISSUED-ON-15TH-JUNE-2017.pdf

74 CIPIT Research Brief, Nairobi March 2017. Available at: https://blog.cipit.org/wp-content/uploads/2017/03/Final-March-Brief-pages.pdf

75 Kenneth Odero, "The Kenyan Government Will Only Shut Down the Internet During Elections 'If Things Get Out Of Hand, (17 January 2017,iAfrikan) available at: https://www.iafrikan.com/2017/01/14/the-kenyan-government-will-only-shut-down-the-Internet-during-elections-if-things-get-out-of-hand/

76 AccessNow, "Election Watch: If Kenya Orders an Internet Shutdown will Telcos#KeepItOn",26 July 2017, available at: https://www.accessnow.org/election-watch-kenya-orders-Internet-shutdown-will-telcos-help-keepiton/;*See also* Bloggers Association of Kenya, 2017 State of the Internet Report, p. 2, available at: https://www.ifree.co.ke/wp-content/uploads/2018/02/State-of-the-Internet-in-Kenya-report-2017.pdf

77 KICTANet, "Building Trust between the State and its Citizens: A Policy Brief on Internet Shutdowns and Elections in Kenya", available at: https://www.kictanet.or.ke/wp-content/uploads/2017/09/Kenya_Policy_Brief_On_Internet_Shutdowns.pdf

78 Footprints of peace https://www.cohesion.or.ke/images/docs/FOOTPRINTS-OF-NCIC.compressed.pdf

▶ ***Indicator:*** *Numbers and trend of content access restrictions, takedowns of domain names and other interventions during the past three years*

There have been few reported incidences of content access restrictions, takedown of domain names during the past three years. In May 2011, a website safaricon.co.ke created by a disgruntled Safaricom customer to complain about Safaricom network services was taken down amidst claims that the takedown happened without Kenya Network Information Centre (KENIC) following due process.[79] In December 2015, the website IsUhuruInKenya.co.ke, which informed Kenyans whether President Uhuru Kenyatta was in the country, was taken down.[80] KENIC confirmed that the domain name was taken down, and remains inactive to date.[81] It is worth noting that there is a growing number of takedowns on social media sites such as Facebook, Twitter, Google and Instagram. Unfortunately, these individual takedown requests of content, including for the violation of community standards are not reported on by the Internet intermediaries.

RC.4 Are individuals, journalists or other online/media actors subject to arbitrary detention, prosecution or intimidation for accessing information online?

▶ ***Indicator:*** *Scope and nature of legal provisions and practice*

The Computer Misuse and Cybercrimes Act, 2018 penalizes unauthorized access.[82]Additionally, unauthorized access in order to intercept data being held by the government is an offence carrying a maximum imprisonment of 10 years or a maximum fine of five million Kenya shillings or both. Currently, there are no publicly reported cases of persons who have been arrested or detained under the provisions of this Act.

▶ ***Indicator:*** *Numbers of arbitrary detentions and prosecutions for access to content that is not illegitimate in terms of international agreements as to the circumstances and criteria for permissible restrictions.*

There have been no reported incidents of arrests, prosecution or intimidation for accessing illegitimate content. The approach by the government has been largely to arrest, prosecute or intimidate the publishers of such content, and not those who seek to access the same.

79 Safaricon.co.ke: Safaricom "Bullies" Registrar, Domainer into taking down domain name http://domainsafrica.blogspot.com/2011/09/safariconcoke-safaricom-bullies.html

80 IsUhuruInKenya.co.ke is back https://techcabal.com/2015/12/08/isuhuruinkenya-co-ke-is-back/

81 KENIC Confirms Takedown of isUhuruInKenya.co.ke Domain https://techweez.com/2015/12/07/isuhuruinkenya-taken-down/

82 section 15(1), Computer Misuse and Cybercrimes Act, 2018, available at: https://au.int/sites/default/files/treaties/36804-sl-AFRICAN%20CHARTER%20ON%20THE%20RIGHTS%20AND%20WELFARE%20OF%20THE%20CHILD.pdf

THEME D
Freedom of Association and the Right to take part in the Conduct of Public Affairs

RD.2 Can non-governmental organizations organize freely online?

▶ ***Indicator:*** *Evidence of online organization, and absence of undue interference with such organization*

Given that freedom of association is guaranteed under Article 36 of the constitution organizations are at liberty to organize online. Several organizations have websites, social media accounts, and online presence, where they engage freely. However, there have been instances where the government has interfered with the operations of non-governmental organizations.

In December 2014, the government shut down more than 500 non-governmental organizations, including 15 groups in claimed had links to financing terrorism.[83] The claim was dismissed by civil society groups as a move aimed at silencing critics under the guise of ensuring security. Several appeared to be Christian organisations, aid agencies, orphanages, or organisations working in health and development closed for failing to provide financial audit returns.[84] In August 2017, the NGO Coordination Board purported to deregister the Kenya Human Rights Commission (KHRC) and the Africa Centre for Open Governance (AFRICOG) for among others, operating illegally and non-payment of taxes.[85] The organizations protested the move stating that it was illegal and unconstitutional, aimed at punishing for criticising the government. Again in October 2017, the NGO Coordination Board ordered the immediate shutdown of the International Law Development Organization (IDLO) offices in Nairobi and asked that all active operations and programmes in Kenya be stopped immediately.[86]

Section 46 of the Prevention of Terrorism Act, 2012 permits the Cabinet Secretary, where he has reasonable grounds to believe that a registered company or association or an applicant for registration as a company or association has made or is likely to make available, directly or

83 Kenya shuts down 500 groups in anti-terrorism crackdown https://www.reuters.com/article/us-kenya-security-ngos/kenya-shuts-down-500-groups-in-anti-terrorism-crackdown-idUSKBN0JU21J20141216

84 Kenya closes down hundreds of NGOS https://www.aljazeera.com/news/africa/2014/12/kenya-closes-down-hundreds-ngos-201412161247225773 48.html

85 NGOs: We were shut over plan to contest poll result in court https://www.nation.co.ke/news/NGOs-We-were-shut-over-plan-to-contest-poll-result-in-court-/1056-4059114-jc5pvc/index.html

86 Supreme backlash: State shuts down international NGO with links to the Judiciary https://www.standardmedia.co.ke/article/2001256610/supreme-backlash-state-shuts-down-international-ngo-with-links-to-the-judiciary

indirectly, any resources in support of a terrorist group, issue an order which if allowed by the High Court, can result in the deregistration or non-registration of the association. In June 2015, the High Court barred the government from declaring two prominent human rights organisations terrorist groups.[87] The government had accused Haki Africa and Muslims for Human Rights (MUHURI) of having links to Islamist group al-Shabab and subsequently frozen their accounts.

RD.3 Are there government policies for e-government and/or e-participation that encourage participation in government and public processes?

▶ ***Indicator:*** *Existence of government policies for e-government and e-participation, including use of the Internet for public consultation*

Kenya's E-Government Strategy was adopted in 2004[88] and it aims to use Information Communication Technologies for better public service delivery.

Moreover, the government has implemented several e-government programmes. The Integrated Financial Management Information System (IFMIS) is an automated system used for public financial management[89] which was first introduced in 2003[90] and is now linked to an e-Procurement system to streamline procurement processes throughout the 47 county governments.[91] The system seeks to enhance transparency and accountability in the procurement process from procurement planning, requisition, sourcing, and to payment.[92]

The Integrated Payroll and Personnel Database (IPPD) has been used to manage the national government payroll and personnel database since its adoption in 1997.[93] The Kenya Revenue Authority utilizes an online platform, iTax, to facilitate the filing and paying of taxes.[94] In 2018,

87 Kenya court rules Haki Africa and MHR not terrorists https://www.bbc.com/news/world-africa-33092786

88 Republic of Kenya, 'E-Government Strategy: The Strategic Framework, Administrative Structure, Training Requirements and Standardization Framework', March 2004. Available at: http://www.ict.go.ke/wp-content/uploads/2019/05/KENYA-E-GOVERNMENT-STRATEGY-2004.pdf

89 Ministry of Finance, "What is IFMIS?"

90 ICPAK, "The Benefits,Challenges and Way Forward of IFMIS in Kenya", 27–28 June 2017 p.9, available at: https://www.icpak.com/wp-content/uploads/2017/07/The-benefits-Challenges-and-way-forward-of-IFMIS-in-Kenya.pdf

91 IFMIS e-Procurement Rolled out throughout the Country to Enhance Service Delivery to the public, available at: http://www.treasury.go.ke/media-centre/news-updates/224-ifmis-e-procurement-rolled-out-throughout-the-country-to-enhance-service-delivery-to-the-public.html

92 ibid.

93 Ministry of State for Public Service, Integrated Payroll And Personnel Database (Ippd) Initiative, available at: http://unpan1.un.org/intradoc/groups/public/documents/AAPAM/UNPAN032705.pdf

94 'KRA to Accelerate Policy Reforms as Kenya Named Technology-Driven Revenue Administration' (CIO East Africa, November 15 2017), available at: https://www.cio.co.ke/kra-accelerate-policy-reforms-kenya-named-technology-driven-revenue-administration/

the platform had enlisted 5.73 million taxpayers up from 4.2 million the previous year.[95] The World Bank Ease of Doing Business recognized Kenya for simplifying its tax and other regulatory procedures and thereby making it easier to start a business.[96]

The National Land Information Management System aims to develop a transparent, decentralized, affordable, effective and efficient GIS based Land Information Management System.[97] In April 2018, the Ministry of Lands and Physical Planning formally rolled out the system which is capable of performing several types of transactions relating to land.[98]

The National Education Management Information System (NEMIS) is a web-based data management solution which facilitates the collection of data and information from education institutions; processes and reports the status of designed indicators. Additionally, the online platform captures school and learner information, facilitates data sharing between all education agencies, tracks costing parameters of education and training, geographical analysis of education indicators with integration of GIS components and business intelligence by providing statistics for reporting national and international indicators in education and training sub-sectors.[99]

The Health Information System (HIS) is a proposed system under the Kenya Health Information Policy for collection, presentation and analysis of health and health-related data and its conveyance to higher levels in the healthcare system.[100] Additionally, HIS is expected to facilitate evidence-based decision-making, especially at the point of collection.

▶ ***Indicator:*** *Values/rankings in UNDESA's e-participation index*

According to the United Nations E-Government Survey of 2018, Kenya scored a middle E-Government Development Index of 0.4541.[101] Kenya is ranked 122[102] and 110[103] in the United Nations e-Government Development Index and E-Participation Index, respectively.

95 ibid.

96 World Bank, Doing Business 2018: Reforming to Create Jobs, p.35 available at: http://documents.worldbank.org/curated/en/803361509607947633/pdf/120811-REVISED-PUBLIC.pdf

97 Vision 2030, Second Medium Plan Term 2013-2017 Plan p.29, available at: http://vision2030.go.ke/inc/uploads/2018/06/Second-Medium-Term-Plan-2013-2017.pdf

98 Lands Ministry to roll out a new Land Information Management System (LIMS), https://lands.go.ke/lands-ministry-to-roll-out-a-new-land-information-management-system-lims/

99 Ministry of Education, National Education Management Information System, available at: http://nemis.education.go.ke/Login.aspx

100 Republic of Kenya, Health Information System Policy, available at: http://www.nationalplanningcycles.org/sites/default/files/country_docs/Kenya/health_information_system_policy.pdf

101 United Nations E-Government Survey of 2018: Gearing E-Government to Support Transformation towards Sustainable and Resilient Societies, p.230. Available at: https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf

102 United Nations e-Government Development Index https://www.unescap.org/sites/default/files/E-Government%20Survey%202018_FINAL.pdf

103 2020 E-Government Development Index. https://publicadministration.un.org/egovkb/Data-Center

THEME E
The Right to Privacy

RE.2 Is the protection of personal data guaranteed in law and enforced in practice, with respect to governments, businesses and other organizations, including rights of access to information held and to redress?

▶ ***Indicator:*** *Legal framework for data protection, including monitoring mechanisms and means of redress, and evidence that it is respected and enforced by government and other competent authorities*

The right to privacy is protected under Article 31 of the constitution which guarantees every person the right not to have their person, home or property searched; their possessions seized; information relating to their family or private affairs unnecessarily required or revealed; or the privacy of their communications infringed. Further to this, the recently enacted Data Protection Act 2019, gives effect to the right to privacy and establishes a legal and institutional framework to safeguard the right to privacy and protect personal data.

In addition, there are other relevant legislation that protect personal data. These include the: Banking Act; Credit Reference Bureau Regulations; Capital Markets Act; Access to Information Act; Private Security Regulation Act; and the Officials Secrets Act. Others include Kenya Information and Communications (Consumer Protection) Regulations, 2010 which protects consumers' rights to personal privacy and protection against unauthorized use of personal information.[104] ICT Regulations under the Elections Act requires the Electoral Commission to conduct audits to ensure data integrity.[105]

Save for where the right is limited, there is general compliance with the right. Where there have been breaches, the courts have been clear in safeguarding the right. For example, in April 2017, the High Court held that the decision of Communications Authority of Kenya to install a Device Management System software, which had surveillance capabilities, in mobile phones was unconstitutional, as if used, it would amount to a breach of the right to privacy to mobile service subscribers.[106]

104 Kenya Information and Communications (Consumer Protection) Regulations, 2010, Regulation 3(d). Available at: http://kenyalaw.org/LegalNotices/pop_ln.php?file=392

105 Regulation 11

106 Okiya Omtatah Okoiti v Communication Authority of Kenya & 8 others, Constitutional Petition No.53 of 2017, [2018] eKLR, available at:http://kenyalaw.org/caselaw/cases/view/151117/

▶ ***Indicator:*** *Legal framework concerning the commercial use of personal data and international data transfer/security, including monitoring mechanisms and means of redress*

The use of personal data for commercial purposes is prohibited under section 37 (1) of the Data Protection Act, 2019[107] unless the express consent of the data subject has been sought and obtained, or the use is authorized under the law and the data subject has been informed of such use when collecting the data from them. Further, data controllers or data processors that use personal data for commercial purposes are required where possible, to anonymise the data in such a manner as to ensure that the data subject is no longer identifiable. The law also requires the Cabinet Secretary, in consultation with the Data Commissioner, to prescribe practice guidelines for the commercial use of personal data in accordance with the Act. Any person aggrieved by the actions of a data processor or controller may make a complaint to the Data Protection Commissioner for redress.

The Act in section 48 allows transfer data to another country where a data controller or processor has: given proof to the Data Commissioner on the appropriate safeguards to security and protection of the data, existence of appropriate safeguards in the jurisdiction such as commensurate laws; and where the transfer is deemed necessary for example for contractual purposes, in the public interest, defence of a legal claim, protection of the rights of a data subject, or for compelling legitimate interests of eh data controller or processor, not overridden by the rights of the data subject.

Under Part 8 of the Act, a person aggrieved may make a complaint to the Data Protection Commissioner, who is empowered to investigate and may issue penalty notices to a person found to be in breach of the Act. A penalty notice is up to a sum of five million shillings, or in the case of an undertaking, up to one per centum of its annual turnover of the preceding financial year, whichever is lower. Moreover, a person who suffers damage resulting from the contravention of the Act is entitled to compensation from the data controller or processor A person aggrieved by any administrative action of the Data Protection Commissioner may appeal to the High Court.

▶ ***Indicator:*** *Existence and powers of an independent data protection authority or similar entity*

The Data Protection Act, 2019 establishes the Office of the Data Protection Commissioner as an independent body in the exercise of its powers and the carrying out of its functions.[108] Its functions include maintaining a register of data controllers and processes, overseeing the implementation

107 Data Protection Act 2019 http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/2019/TheDataProtectionAct__No24of2019.pdf

108 Data Protection Act, s.8.

of the Act, receiving and investigating complaints among other functions. The Office of the Data Protection Commissioner is empowered to conduct dispute resolution proceedings, summon witnesses and seek professional assistance to perform its functions.[109] However, the office of the Data Protection Commissioner is yet to be established.

RE.3 Are the powers of law enforcement and other agencies for the lawful interception of user data necessary, proportionate and limited to circumstances which are consistent with international and regional rights agreements, laws and standards?

▶ ***Indicator:*** *Legal framework for the lawful interception of data, including independent oversight and transparency, and evidence concerning implementation by government and other competent authorities*

The right to privacy is limited under sections 36 and 42 of the National Intelligence Service Act with respect to a person suspected to have committed an offence; and their communications may be investigated, monitored or otherwise interfered with pursuant to a court warrant issued by the High Court.[110] Section 36 of the National Intelligence Service Act empowers the Service, pursuant to a court warrant, to interfere with the right to privacy of a person under investigations. Further, section 42 of the Act allows the Service to conduct covert operations and monitor communications under the authorization of the Director General.

Section 36 of the Prevention of Terrorism Act, 2012 grants a police officer of or above the rank of Chief Inspector to apply *ex parte* to the High Court for an interception of communication order. Prior to doing so, the consent of the Inspector-General of Police or the Director of Public Prosecutions should be obtained. The evidence obtained under such orders is admissible. If the police fail to comply with the section, the officer may on conviction be liable to a penalty of a term of imprisonment not exceeding ten years or a fine not exceeding five million or both.

Article 22 of the Constitution allows any person whose rights have been infringed or are threatened to file a constitutional petition in the High Court to seek redress for the violation of their human rights. The challenge with these provisions are that the court orders are granted *ex parte*, and therefore, the person affected may not be aware of the violations by law enforcement agencies who are conducting the interception.

109 Ibid at s.9.

110 National Intelligence Service Act, 2012. Available at: https://www.nis.go.ke/downloads/THE%20NATIONAL%20INTELLIGENCE%20SERVICE%20ACT,%202012.pdf

THEME F
Social, Economic and Cultural Rights

RF.1 Do government policies incorporate the Internet in strategies concerned with employment, health and education, with particular reference to ICESCR rights?

▶ ***Indicator:*** *Evidence of inclusion of a) the Internet, and b) respect for ICESCR rights, in sector strategies for employment, health and education.*

Economic and social rights are provided for under Article 43 of the Constitution. Article 43(1) (a) of the Constitution provides for the right of every person to the highest attainable standard of health, which includes the right to health care services, including reproductive health care. The Ministry of Health has tested various online initiatives, for example, telemedicine and is currently in the process of coordinating and integrating all its medical activities with the plan of the national healthcare policy. The e-Health policy will guarantee consistency with the National IT/ICT and National e-government policy infrastructure. Moreover, section 103 of the Health Act, 2017 recognizes e-health as a mode of health service.[111] Further, it requires the Cabinet Secretary responsible for health to enact legislation by the year 2020, to provide for among others, health service delivery through M-health, E-learning and telemedicine

The right to education is provided for under Article 43(1)(f) of the Constitution. The government has continued to integrate ICT in education programmes[112] such as the Digital Literacy Program which seeks to provide schools with digital resources for effective curriculum delivery. Internet connectivity has been identified as vital in teaching and learning since it ensures access to content, collaboration and communication.[113] ICT has also been used in the administrative aspects of education, the National Education Management Information System has effectively streamlined the administration of educational institutions.[114] It is worth noting that the Communications Authority of Kenya, under its Universal Access Program, has connected 887 secondary schools across 47 counties to high speed broadband connectivity of 5 mbps.[115]

111 Health Act 2017 http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/HealthActNo.21of2017.pdf

112 Ministry of Education, National Education Strategic Plan (2018-2022),p.43, available at: http://www.education.go.ke/images/NESSP/MOE-NESSP.pdf

113 p.49, available at: http://www.education.go.ke/images/NESSP/MOE-NESSP.pdf

114 Ministry of Education, National Education Management Information System, available at: http://nemis.education.go.ke/Login.aspx

115 Communications Authority of Kenya, Education Broadband Connectivity Project,available at: https://ca.go.ke/education-broadband-connectivity-project/

With regards to employment, the National Employment Authority has integrated the use of the Internet by advertising job vacancies on its website[116] as well as launching a special website for Kenyans working abroad. The migrant workers website provides important information for Kenyans planning to go to work in the Gulf states such as the contacts for the respective embassies and how to return back home.[117] Another government initiative is the Ajira Digital Program under the Ministry of ICT. This program seeks to market Kenya as a labour market destination for multinational companies as well as encourage local companies and public sectors to create digital work.[118]

▶ ***Indicator:*** *Evidence of analysis by government of the impact of Internet on employment, health and education*

The Digital Economy blueprint 2019,[119] recognises the role of the digital economy in enhancing employment creation in the country. It also analyses the role and impact of education in realising the digital economy for the country, noting that "ICT is a key enabler of the social sectors such as education, health and agriculture". The blueprint also notes the high correlation between ICTs and SDG progress as 91%, with SDG 4 (Education), SDG 3 (Healthcare) and SDG 9 (Industry and innovation) having the most potential for ICT-enabled transformation. The blueprint also encourages smart societies and networks in major infrastructure areas, such as energy, transportation, health, education and public administration.

RF.2 Are all citizens and other individuals equally able to take advantage of the Internet to participate in cultural activity?

▶ ***Indicator:*** *Extent and nature of differences in Internet access and use between different communities/ethnicities*

Internet access is disproportionately distributed in Kenya.[120] In 2007, the highest levels of access were noted in Nairobi with 80% Internet penetration followed by Coast Province with 9%.[121] Eastern, Western and North Eastern had the least number of Internet customers respectively.[122] In september 2019 statistics from the Communications Authority indicated that the country had

116 National Employment Authority http://nea.go.ke/web/

117 Kenya Migrant Worker https://kenyamigrantworker.org/

118 Ajira Digital https://ajiradigital.go.ke/about_ajira

119 Digital Economy Blueprint https://www.ict.go.ke/wp-content/uploads/2019/05/Kenya-Digital-Economy-2019.pdf

120 Internet Market Analysis Report 2007, Communication Commission of Kenya, https://ca.go.ke/wp-content/uploads/2018/03/Final-Internet-market-analysis-report.pdf

121 Ibid at p.8

122 ibid.

52 million Internet subscriptions, of which 51.6 million were from mobile data subscriptions.[123] Mobile penetration in the country is high at 112 percent.

However, these statistics do not indicate the distribution of Internet users in different demographics or geographic areas, which are occupied by people from different communities. Despite mobile penetration being high, there still exists a digital divide between rural and urban areas. These can be attributed to the lack of electricity and Internet infrastructure outside major cities and urban areas, and the high cost of Internet services and Internet-enabled devices.[124]

▶ ***Indicator:*** *Existence of government policy concerning cultural heritage online*

Article 11 of the Constitution recognizes culture as the foundation of the nation. It obligates the state to promote all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage. The state is also required to recognize the role of science and indigenous technologies in the development of the nation and promote the intellectual property rights of the people of Kenya.

In addition, the National ICT Policy 2019 states that the government will encourage the use of Kenya's unique culture and languages to grow the technology ecosystem and elevate businesses to compete at a global level.[125] The additional measures proposed include supporting locally based development of ICT applications and multimedia content; encouraging the use of local languages in developing content; encouraging the development of content that captures and preserves knowledge and culture of Kenya's diverse communities; removal of barriers to local content creation and distribution such as exorbitant classification fees and broadcasting fees; promotion, collection, preservation, digitisation, distribution and publishing of historical community materials; and encouraging the development and management of information and knowledge resources as a national heritage.

The Communications Authority of Kenya, which regulates broadcasting, requires licensees to air 40% of local content which is wholly or partially produced in Kenya and either in Kenya's indigenous languages or the official languages.[126] A number of these stations broadcast online on platforms such as YouTube, therefore, they aid the initiative of promoting cultural heritage online.

123 Sector Statistics Report https://ca.go.ke/wp-content/uploads/2019/12/Sector-Statistics-Report-Q1-2019-2020.pdf

124 Mobile solutions a catalyst for Internet penetration in Kenya https://www.dw.com/en/mobile-solutions-a-catalyst-for-Internet-penetration-in-kenya/a-47078206

125 National ICT Policy https://www.ict.go.ke/wp-content/uploads/2019/12/NATIONAL-ICT-POLICY-2019.pdf

126 Communications Authority of Kenya, "The Programming Code for Free-to-Air Radio/Television Services in Kenya", 2nd Edition March 2016,p.29 available at: https://ca.go.ke/wp-content/uploads/2018/02/PROGRAMMING-CODE-FOR-FREE-TO-AIR-BROADCASTING-MARCH-2016.pdf

3

Indicator: *Constitutional or legal guarantee of freedom of artistic expression.*

Freedom of artistic expression is recognized under Articles 11 and 33 of the Constitution. Courts have also recognized the importance of artistic creativity in Kenya's political and social history.[127] Artistic expression has been protected even on sensitive themes such as homosexuality, such as a recent court decision which lifted a ban on the viewing of "Rafiki", which had a gay theme.[128]

Nonetheless, freedom of artistic expression is limited under sections 3 to 10 of the Films and Stage Plays Act. These provisions set out licensing requirements for making films except where the film is exempted under section 10 by the licensing Officer. A filmmaker must make an application to the Licensing Officer with a full description of the scenes and the full text of the spoken parts of the entire film to be made. The licensing officer may refuse or grant a license with or without conditions at his discretion.

127 Okiya Omtatah Okoiti V Attorney General & 2 others [2013] eKLR, available at:http://kenyalaw.org/caselaw/cases/view/87957

128 Wanuri Kahiu & another v CEO, Kenya Film Classification Board - Ezekiel Mutua & 4 others [2018] eKLR, available at: http://kenyalaw.org/caselaw/cases/view/158712/

Policy Recommendations for Various Stakeholders

Government

- Government agencies such as the Communications Authority of Kenya should invest in research to provide accurate and diverse statistics on Internet use in the country.
- The government should have a clear cultural heritage policy to fulfill Article 11 of the Constitution of Kenya.
- The Films and Stage Plays Act should be reviewed in order to provide oversight of the licensing procedures.
- The office of the Data Protection Commissioner should be established to ensure the protection of personal data.
- The Kenya National Human Rights Commission should monitor and report on human rights violations online.

Private Sector

- Embrace and commit to the United Nations Business and Human Rights Principles.
- Develop policies and review their practices to ensure they are rights respecting by design.
- Collaborate with other stakeholders including civil society to advance human rights within their operations.
- Invest in research and provide statistics on the use of technology, which can be useful for decision-making.

Civil Society

- Monitor and report on the state of digital rights in Kenya.
- Continue to hold the government and the private sector accountable for the state of human rights in the country, especially in the digital era.
- Collaborate with other stakeholders to promote the realisation of human rights online.
- Raise awareness of the public on their rights online.

Academia

- Conduct more evidence-based research on the use and impact of technology on human rights in Kenya.
- Share the findings of critical research more widely to all relevant stakeholders, in particular policy makers.

Individual Users

- Increase their knowledge on their rights in the online context.
- Monitor the practices of other stakeholders and resist abuse of their rights online and seek redress from the appropriate agencies whenever there is a violation.

Media and Journalists

- Use their platforms to create awareness of the public on their rights online.
- Monitor and report on the violations or abuses of human rights in the online context.
- Build their capacity and understanding of human rights, especially in an online context.

O
Openness

4

CATEGORY O
OPENNESS

4

THEME A
Policy, Legal and Regulatory Framework

OA.2 Does the legal and regulatory framework for business, academia and civil society facilitate innovation on the Internet?

▶ ***Indicator:*** *Evidence concerning the conduciveness of the legal and regulatory framework towards the establishment of new business ventures and innovation by academia and civil society*

Kenya adopted a commercial model in the provision of ICT services. A unified licensing framework (ULF) has been adopted under the primary ICT law, the Kenya Information and Communications Act (KICA).[129] The market structure under the unified licensing framework that came into effect from January 2016 created various licences ranging from KES 1,000 (USD 100) for licensing of telecommunication personnel, to KES 15 million (USD 15,000). Operators are charged annual operating fees KES 4 million (USD 40,000) or 0.4% of annual gross turnover. Fees for broadcasting and Internet services are market based.[130]

Prior to applying for a communications license, an applicant is required to comply with general business and tax registration procedures. These include the Companies Act, Partnerships Act, Limited Liability Partnership Act and Registration of Business Act. In 2019, Kenya was ranked 61 in the World Bank's Ease of Doing Business Score.[131] The score captures the gap of each economy from the best regulatory performance observed on indicators such as: starting a business; construction permits; getting electricity; registering property; getting credit; protecting minority investors; paying taxes; trading across borders; enforcing contracts; and resolving insolvency.

129 Communications Authority of Kenya, *Unified Licensing Framework* available from https://ca.go.ke/industry/telecommunication/market-structure/

130 Communications Authority of Kenya 2016, *Market Structure under the Unified Licensing Framework* https://ca.go.ke/wp-content/uploads/2018/03/New-Market-Structure-Under-The-Unified-Licensing-Framework-January-2016-1.pdf

131 World Bank 2019, *Doing Business in Kenya* available from: http://documents.worldbank.org/curated/en/729481541143479565/pdf/WP-DB2019-PUBLIC-Kenya.pdf

▶ ***Indicator:*** *Perceptions of experience of the regulatory environment for business and ICTs by businesses, including Internet-enabled business*

While the ULF is flexible from a commercial perspective, the high fees charged are prohibitive for non-commercial entities that are community based and social entrepreneurs. Broadcasting regulations envisage community radio stations. The licensing procedures provide that one may make an application for a community radio license for consideration by the regulator.[132]

Emerging regulatory challenges in the ICT sector include cross-regulation and regulation of new Internet based business models. ICT has been disruptive across many sectors. For example, Kenya's renowned mobile money transfer service, MPesa, is considered both an ICT service as well as a financial product. It is therefore co-regulated by the banking sector, telecommunications sector and the competition regulators.

MPesa has developed into a platform upon which products such as payments, digital loans and betting are delivered.[133] These products are regulated by existing laws on banking, microfinance and gambling respectively. However, the government is keen to raise revenue from the services and targeted them for taxation in 2018 and 2019. This has resulted in the exit of some betting companies from the country following the government's decision to impose a 10 percent Excise Duty on stakes in addition to the betting tax of 15 percent.[134]

Examples of other Internet related businesses that face uncertainty due to lack of clear regulations include cryptocurrencies, global social media networking sites, blogging and vlogging. The Central Bank of Kenya, for example, cautioned against cryptocurrencies in December 2015.[135]

132 Communications Authority of Kenya, *Procedure for Broadcasting Service Providers Licence* available from https://ca.go.ke/wp-content/uploads/2018/04/Procedure-For-Licensing-of-Broadcasting-Service-Providers.pdf

133 Safaricom *MPesa API* available from https://www.safaricom.co.ke/business/corporate/m-pesa-payment-services/m-pesa-api

134 Juma V 2019 'SportPesa owners take hit as firm closes Kenya office' *Business Daily* 4 October. Available from: https://www.businessdailyafrica.com/news/SportPesa-owners-take-hit-as-firm-closes/539546-5298170-jmdw4a/index.html

135 Central Bank of Kenya 2015, *Public Notice on Virtual Currencies* available from: https://www.centralbank.go.ke/images/docs/media/Public_Notice_on_virtual_currencies_such_as_Bitcoin.pdf

THEME B
Open Standards

OB.3 Does the government promote the diversity of intellectual property licensing options including free and open-source software (FOSS)?

▶ ***Indicator:*** *Government policy towards FOSS and other licensing options*

In the formative years of the ICT industry, free and open source software (FOSS) advocates[136] called for the government to adopt FOSS as a standard across government departments. While some departments incorporated FOSS, it is not a standard requirement.

The technical layers in digitalization projects such as digital ID, are numerous. For example, enrolment is done through biometric readers, the data is stored in databases on the cloud, then subsequently analysed using algorithms. Individuals are issued with smart cards that are printed according to the technology adopted. These cards are later used to access services at service points such as the web or service kiosks, and technology is also employed. In all these processes, the safety of data is guaranteed through technologies such as encryption. In the discourse on digital ID, the country has been encouraged to adopt technology that is neutral to enhance interoperability and prevent vendor lock-in.[137]

OB.4 Does the government promote and adopt standards to facilitate accessibility to the Internet and e-government services for persons with disabilities?

▶ ***Indicator:*** *Government policy and practice towards ensuring accessibility for persons with disabilities*

Kenya has multiple languages spoken in its various regions. The constitution recognizes three national languages: English, Swahili and Kenyan Sign Language.[138] Under section 15 of the

136 KICTANet 2016, *Ten Years of ICT Policy Making in Kenya.*Available from https://www.kictanet.or.ke/?page_id=40115#

137 World Bank 2019 *Principles on Identification for Sustainable Development.* Available from http://documents.worldbank.org/curated/en/213581486378184357/Principles-on-identification-for-sustainable-development-toward-the-digital-age

138 Constitution of Kenya 2010, art.7 http://www.klrc.go.ke/index.php/constitution-of-kenya/108-chapter-two-the-republic/173-7-national-official-and-other-languages

Programming Code, broadcasters are required to "provide sign language insert and subtitles in all newscasts and in all programmes covering emergencies and events of national significance to facilitate enjoyment of the programming by Persons with Disabilities".[139] A review of broadcasts and public announcements shows that newscasts on national free to air television stations and on their online channels on YouTube have sign language interpreters. Subtitles are yet to be implemented.

The Constitution also recognizes the rights of persons with disability (PWD)[140] and prohibits their discrimination.[141] This is complemented by the Persons with Disabilities Act[142] that among other things, provides tax incentives for employers of persons with disabilities in its section 16. However, the Act envisages employment in the traditional sense of working in a physical office[143] space and requires review to update it with realities of online work for PWDs. Section 24 of the Act also empowers the Council established under the Act to issue adjustment orders to public physical spaces that are not conducive for PWDs. Public online spaces such as websites and e-government portals are not provided for.

Kenya's ICT Policy 2006 in clause 13 outlines measures for creating an accessible environment for PWDs through leveraging on ICTs.[144] To promote the rights of PWDs, the Universal Service Fund has been used to provide Job Access With Speech (JAWS) software for institutions for PWDs.[145]

▶ ***Indicator:*** *Perceptions of persons with disabilities concerning accessibility policy and practice*

Persons with disability have not benefited from the capacities offered by ICTs. The Association for Accessibility and Equality for example notes that the policy measures outlined in the ICT Policy are yet to be enforced.[146] More needs to be done to enhance accessibility. For example, there is a substantial number of government services now being offered online, with some being

139 Programming Code for Free-to-Air Radio and Television Services in Kenya 2015 https://kfcb.co.ke/wp-content/uploads/2016/07/Programe_code.pdf

140 Constitution of Kenya 2010, art.54 http://www.klrc.go.ke/index.php/constitution-of-kenya/113-chapter-four-the-bill-of-rights/part-3-specific-application-of-rights/220-54-persons-with-disabilities

141 Constitution of Kenya 2010, art.27 http://www.klrc.go.ke/index.php/constitution-of-kenya/112-chapter-four-the-bill-of-rights/part-2-rights-and-fundamental-freedoms/193-27-equality-and-freedom-from-discrimination

142 Persons with Disabilities Act https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/69444/115499/F923058%20154/KEN69444%202012.pdf

143 Section 16(2) for example provides for tax rebates for accessibility improvements of physical buildings only. Improvements such as purchase of accessibility software and hardware are not explicitly provided for.

144 Kenya ICT Policy 2006. Available from http://icta.go.ke/national-ict-policy/

145 CIPESA 2019, Placing ICT Access for Persons with Disabilities at the Centre of Internet Rights Debate in Kenya available from: https://cipesa.org/2019/09/placing-ict-access-for-persons-with-disabilities-at-the-centre-of-Internet-rights-debate-in-kenya/

146 Placing ICT access for Persons with Disabilities at the centre of Internet rights debate https://cipesa.org/2019/09/placing-ict-access-for-persons-with-disabilities-at-the-centre-of-Internet-rights-debate-in-kenya/

offered exclusively online. The government websites offering these services do not all contain features to support PWDs or those with low digital literacy. PWDs are therefore forced to seek the services of intermediaries in order to access these services.

THEME C
Open Markets

OC.1 Is there independent regulation of communications markets, undertaken in accordance with international norms and standards?

▶ ***Indicator:*** *Existence of an independent regulatory authority or authorities*

There are several government authorities in the ICT sector. The Media Council of Kenya established under the Media Council Act oversees compliance with media standards. The Council is meant to give effect to the constitutional guarantee on freedom of the media. The Competition Authority is mandated with ensuring competition and protection of consumers, including in the ICT sector. The laws establishing the authorities state that the authorities shall be independent. To a large extent, the Communications Authority has remained fairly independent in functions as well as finances. However, the government has been sued[147] on several occasions for interfering with the recruitment process for the board of the authority.

The Media Council is established under the Media Council of Kenya Act. Its functions include promotion and protection of the freedom of the media as well as regulation of journalists, media practitioners and media enterprises.[148] Its board comprises representatives of bodies in the media industry, including editors and journalists associations.[149] The Council's independence has been

147 See for example: Sunday F, 2016 'Communications Authority directors sue government, vow to stay put' The Standard 14 February. Available from https://www.standardmedia.co.ke/article/2000191600/communications-authority-directors-sue-government-vow-to-stay-put and Wambulwa A 2019 'Court stops Mucheru from appointing new CAK board' The Star 1May. Available from https://www.the-star.co.ke/news/2019-05-01-court-stops-mucheru-from-appointing-new-cak-board/

148 Media Council of Kenya Act, s.6

149 Media Council of Kenya Act, s.7

questioned given some of the decisions it has taken for example with guidelines developed for election coverage[150] that were viewed to favour the ruling administration.[151]

The ICT industry is also regulated by other sector specific regulators. The Central Bank of Kenya for example, regulates both mobile and online payment systems under the National Payment Systems Act.[152]

▶ ***Indicator:*** *Evidence concerning regulatory performance, including perceptions of the quality of regulation by communications businesses, consumer associations and other organizations*

The Kenya Information and Communications Act envisages consumer protection. The 2010 Consumer Protection Regulations under the Act require each licensed service provider to have consumer complaints mechanisms as well as customer service desks. Authorities are also empowered to handle consumer complaints. The Competition Authority keeps a public record of the cases it handles.[153] It also receives complaints lodged to it by any person regarding any licensed broadcaster including those licensed to provide Internet broadband services.[154] The Authority also carries out consumer education programmes known as *Kikao Kikuu*[155] Swahili for high forum, where the Authority travels to different counties to engage with ICT consumers.

The Authority has enforced consumer protection on several occasions. In 2018, telcos were fined over Kenya shillings 300 million (USD 3 million) for poor quality of service.[156] The Authority announced that it had also acquired a system to monitor the quality of service.[157] In 2017, the Authority issued guidelines on political messaging, to protect consumers from unsolicited

150 Media Council of Kenya 2017 Guidelines for Election Coverage. Available from https://www.mediacouncil.or.ke/en/mck/images/AccreditationGuidelines/MCK-Election-Guidelines-2017.pdf

151 ELOG 2018 One Country, Two Elections, Many Voices. Available from https://elog.or.ke › index.php › resource-centre › item › download

152 National Payment System Act, available from: https://www.centralbank.go.ke/images/docs/legislation/NATIONAL%20PAYMENT%20SYSTEM%20ACT%20(No%2039%20of%202011)%20(2).pdf

153 Competition Authority of Kenya, determinations available from: https://www.cak.go.ke/information-center/CAK-latest-determinations

154 Communications Authority of Kenya, *Complaints* available from: https://ca.go.ke/consumers/ca-you/complaints

155 Competition Authority of Kenya, *Kikao Kikuu* available from https://ca.go.ke/kikao-kikuu/

156 Communications Authority 2018 *Authority Fines Telcos Over Ksh. 300m for Poor Quality Services.* Available from: https://ca.go.ke/authority-fines-telcos-over-ksh-300m-for-poor-quality-services/

157 CIO 2018 'CA unveils new framework for assessment of telecom quality of service'. Available at https://www.cio.co.ke/ca-unveils-new-framework-for-assessment-of-telecom-quality-of-service/
https://ca.go.ke/wp-content/uploads/2018/02/Consumer-Protection-Regulations-2010-1.pdf

messages.[158] The Guidelines were however criticized as being substantive legislation affecting entities that were not licensed by the Authority, and therefore not legally under their mandate.[159]

The Kenya Information and Communications Act also establishes the Communication and Multimedia Appeals Tribunal, which can hear complaints against any publication or the conduct of a journalist or media enterprise; to hear appeals against the decisions of the industry regulators, the Communications Authority of Kenya and the Media Council of Kenya.[160]

The Constitution of Kenya has entrenched public participation in the national values and principles of governance under its Article 10.[161] Any person or group can approach any public office to petition on a matter that affects them.[162] In addition, public policy decisions, including policy and law making process must seek and take into consideration the input of those who may be affected by the policy or law.[163]

Although the understanding and the implementation of the public participation concept is still poor, the requirement provides an opportunity for industry associations, consumer organizations and civil society actors to engage with ICT policy makers. Some organizations that continue to engage ICT policy makers include the Kenya Private Sector Alliance (KEPSA),[164] Consumers Federation of Kenya (COFEK),[165] and KICTANet.[166]

The courts have become an important avenue for the resolution of disputes pertaining to laws. The Bloggers Association of Kenya in 2018 filed a petition challenging among others criminalization of fake news through the Computer Misuse and Cybercrimes Act 2018.[167] Prior to that, human rights defender Okiya Omtatah filed a petition objecting to the implementation of a Device Management System (DMS) that had been purchased by the Communications Authority. The

158 Guidelines on Prevention of Dissemination of Undesirable Bulkand Premium Rate Political Messages and Political Social Media Content Via Electronic Communications Networks July 2017. Available from: https://ca.go.ke/wp-content/uploads/2018/02/Guidelines-on-Prevention-of-Dissemination-of-Undesirable-Bulk-and-Premium-Rate-Political-Messages-and-Political-Social-Media-Content-Via-Electronic-Networks-1.pdf

159 iFreeKe 2017 Statement by BAKE on CA's 'Guidelines for Prevention of Dissemination of Undesirable Political Messages'. Available from: https://www.ifree.co.ke/2017/07/statement-by-bake-on-cas-guidelines-for-prevention-of-dissemination-of-undesirable-bulk-political-sms-and-social-media-content-via-electronic-communications-networks/

160 Judiciary *Communications and Media Appeals Tribunal* available from https://www.judiciary.go.ke/communication-and-multimedia-appeals-tribunal/#1535538098679-775d91e4-a0a6

161 Constitution of Kenya, Art. 10

162 Constitution of Kenya, Art. 37

163 Constitution of Kenya, Art. 118

164 See for example:Ministry of ICT 2019 *KEPSA to collaborate on Ajira* http://www.ict.go.ke/kepsa-working-collaboratively-with-ict-ministry-on-ajira/

165 Onyango P, 2019 'Cofek opposes ICT ministry purchasing ICT for State departments' *The Standard* 14 January . Available from: https://www.standardmedia.co.ke/article/2001309438/cofek-opposes-ict-ministry-purchasing-ict-for-state-departments

166 KICTANet 2018 *Talk to the senate: Priorities 2017-2022* . Available from: https://www.kictanet.or.ke/?wpdmpro=talk-to-the-senate-priorities-2017-2022

167 Bloggers Association of Kenya (Bake) v Attorney General & 5 others [2018] eKLR

Authority sought to install the DMS in mobile network operator premises ostensibly to whitelist all communication devices in the country.[168]

OC.4 Is there sufficiently effective competition in communications access networks to protect consumer interests?

▶ ***Indicator:*** *Number of fixed and mobile broadband providers*

There are more than 10 fixed and mobile broadband providers in the country. As of June 2019, there were 52 million Internet subscriptions of which 99.9 percent were through mobile data. At the time, Safaricom PLC had 65.3% of the mobile Internet market share, followed by Airtel Networks Limited (26.9%), Telkom Kenya Limited 7.2% Finserve Africa Limited (0.4%) and Mobile PayLimited at 0.2%.

Fixed Internet data providers and their respective subscriber bases as at June 2019 were as follows: Wananchi Companies Ltd (34.8%); Safaricom PLC (32.7%); Jamii Telecommunications Ltd (14.6%); Poa Internet Kenya Ltd (7.8%); Internet Solutions Kenya Ltd (3.7%); Mawingu Networks Ltd (2.4%); Liquid Telecommunications Kenya Limited (2.1%); Telkom Kenya Ltd (1.2%); Mobile Telephone Networks Business Kenya Ltd (0.1%); Frontier Optical Networks Ltd (0.1%); and other fixed service providers (0.3%).[169] The data shows that the top two service providers command over 60% of the market, indicating that consumers have limited choice.

168 Okiya Omtatah Okoiti v Communication Authority of Kenya & 8 others [2018] eKLR

169 Communications Authority 2019, *Sector Statistics Quarter 4 2018/19* available from: https://ca.go.ke/wp-content/uploads/2019/09/Sector-Statistics-Report-Q4-2018-19.pdf

THEME D
Open Content

OD.4 Does the government encourage the use of open educational resources (OER) and facilitate open access to academic and scientific resources?

▶ ***Indicator:*** *Educational policy framework concerning OER*

Kenya is a signatory to UNESCO's 2012 Paris Declaration on Open Education Resources licensed under Creative Commons open licenses.[170] Several OER initiatives in the country exist. They include Teacher Education in Sub-Saharan Africa (TESSA), a network of educators who offer OER with the object of improving teacher education. Others are OER Africa and Africa Virtual University (AVU) headquartered in Nairobi.

The 2015 National Education Sector Plan by the Ministry of Education acknowledges the lack of open educational resources for secondary level education.[171] Among the challenges to OER adoption include lack of local content; incompatibility of available OER with the Kenyan syllabus; negative attitudes among teachers and school leaders; and resistance from the publishing industry.[172] The Kenya Education Network (KENET) is among non-state institutions advocating for OER[173] as Kenya ventures into digital learning.[174]

Universities are increasingly creating repositories where research is shared.[175] Private universities such as USIU-Africa[176] and Strathmore,[177] have arrangements for access to world class journals and other academic and scientific resources. Public institutions struggle to keep up with subscriptions. The University of Nairobi has made arrangements for access to a few academic

170 The Declaration https://en.unesco.org/oer/paris-declaration

171 Ministry of Education 2015 *National Education Sector Plan.* Available at www.education.go.ke › downloads › category › 17-policy-documents

172 Orwenjo D and Erastus F 2018 'Challenges of Adopting Open Educational Resources (OER) in Kenyan Secondary Schools: The Case of Open Resources for English Language Teaching (ORELT)' *Journal of Learning for Development* Available at https://jl4d.org/index.php/ejl4d/article/view/282/316

173 KEBT 2018 *Why we should embrace Open Educational Resources (OER).* Available from: https://www.kenet.or.ke/content/kenya-education-network-0

174 ICTA *Digital Learning Curriculum.* Available at http://icta.go.ke/digischool/digital-content/

175 See for example, https://www.uonbi.ac.ke/index.php?q=node/146

176 USIU-Africa *e-journals.* Available at https://www.usiu.ac.ke/806/e-journals/

177 Strathmore University *Library Services.* Available from https://www.library.strathmore.edu/

journals. Many public and private universities publish dissertations online, increasing local knowledge. However, access to knowledge outside universities is still a challenge.

O D.5 Does the government require ISPs to manage network traffic in a way that is transparent, impartial and neutral, without discriminating against particular types of content or content from particular sources?

▶ ***Indicator:*** *Regulatory arrangements and practice concerning net neutrality and competition for online and network services*

Kenya is yet to adopt net neutrality laws. Organizations such as KICTANet have debated the issue of net neutrality, with many supporting the idea of non-discrimination in online and network services. However, some state that it should be possible to subsidize and prioritize e-government services. This is based on the understanding that government services are increasingly being offered exclusively online yet not everyone has access to the Internet.[178] In 2018, the Communications Authority called for expression of interest in a study on OTT services.[179] The study is yet to be completed, but advocacy groups have compiled views on the policy concerns with Over the Top Technologies (OTT) regulation.[180]

The sector has several zero-rated services. Most mobile network credit bundles come with free WhatsApp, or free YouTube.[181] Social networking sites are also supporting the development of "lite" versions of their apps, for example Facebook Lite and Facebook Kadogo that consume less data bundles.[182] Free basics has been criticized for not being people-centric but rather centered on getting more people online for purposes of increasing the company's market shares. For example, the free content is not fully relevant and it is not available in local languages.[183]

Safaricom has the largest market share in the mobile data market and in broadband provision. Some argue that bundling of products, particularly the mobile money service MPesa, has given Safaricom an unfair advantage and created a barrier to entry into the market for other players. A

178 KICTANet 2016, *Ten Years of ICT Policy Making in Kenya.*Available from https://www.kictanet.or.ke/?page_id=40115#

179 Communications Authority 2018 *Consultancy Services For The Study On Over-The-Top (OTTs) Technologies Services In Kenya.* Available from: https://ca.go.ke/document/consultancy-services-for-the-study-on-over-the-top-otts-technologies-services-in-kenya/

180 KICTANet 2019 *Regulating OTTs Policy Brief.* Available from: https://www.kictanet.or.ke/?page_id=40115

181 See for example: Airtel Kenya *Free Basics.* Available from https://www.airtelkenya.com/Internet_org and Telkom Kenya *Free Bundles* available at https://telkom.co.ke/freedom-bundles-1

182 Safaricom 2019, *Terms and Conditions for Free Facebook* available from: https://www.safaricom.co.ke/free-facebook-terms-and-conditions

183 Wanjohi N. W 2017 *Free Basics in Kenya.* Available fromhttps://advox.globalvoices.org/wp-content/uploads/2017/07/KENYA.pdf

2018 competition study[184] confirmed this dominance and recommended splitting of Safaricom's services. The Competition Authority of Kenya warned against taking action, arguing that although Safaricom was dominant, it had not abused its market position.[185] A March 2019 report by the National Assembly ICT Committee also made recommendations on the principles and guidelines on several issues affecting competition in the ICT sector including: spectrum allocation; market share; broadband services and rates; SMS termination rates; Unstructured Supplementary Service Data (USSD) access rates; mobile money service rates; access to telecommunications infrastructure; content services and national roaming.[186]

THEME E
Open Data and Open Government

OE.1 Has legislation been enacted which requires open access to public data, with appropriate privacy protections, and is that legislation implemented?

▶ ***Indicator:*** *Existence of a legal framework for access to open data which is consistent with international norms and privacy requirements*

The right of access to information is entrenched in the Constitution under Article 35. This has been effected through the Access to Information Act, 2016 that is overseen by the office of the Ombudsman. The Act in section 5, provides for proactive disclosure of information that is of interest to the public. The Ombudsman issued guidelines requiring Ministries, Departments and Agencies (MDAs) to publish contacts of their information officers. An online Access to Information Centre (ATI) to provide information on implementation of the mandate.[187] The newly enacted

184 Analysys Mason 2018 *Presentation to stakeholders and members of the public Telecommunication competition market study in Kenya.* Available at: https://ca.go.ke/wp-content/uploads/2018/02/Presentation-on-Telecommunication-Competition-Study-to-Stakeholders-.pdf

185 Miriri D 2018, 'Kenya's competition watchdog says no need for action on Safaricom' *Reuters* 7 Aug. Available from: https://www.reuters.com/article/kenya-telecoms/kenyas-competition-watchdog-says-no-need-for-action-on-safaricom-idUSL5N1UY44D

186 Report on the inquiry in the legislative and regulatory gaps affecting competition in the telecommunications sub-sector. Available from: http://www.parliament.go.ke/sites/default/files/2019-03/ICT%20Report%20on%20Inquiry%20on%20Competition%20in%20Telcom%20subsector.pdf

187 Commission for Administrative Justice *Access to Information Centre* avaialble from https://www.ombudsman.go.ke/index.php/access-to-information-centre

Data Protection Act exempts research data, provided that it has been deidentified.[188] This is envisaged to complement government open data initiatives.

Kenya is a member of the Open Government Partnership (OGP), a multilateral partnership in support of open data.[189] In 2011, the country launched an open data portal that has since been upgraded with tools for open research.[190] Kenya's 2018 - 2020 National Action Plan on Open Government aspires to enhance transparency in government contracting and leverage on ICTs to enhance information sharing.[191] In June 2018, the President through an Executive Order directed his administration to adopt open contracting.[192]

To date, all Ministries, Departments and Agencies (MDAs) have developed websites that provide basic information such as their mandate, ongoing activities, open tenders and contact information. Many MDAs also have social media accounts through which they share information with the public.[193]

▶ ***Indicator:*** *Evidence concerning the extent to which open data resources are available and used online*

In practice, government agencies are not well sensitized to implement the right of access to information, making it difficult for the public to enjoy this right.[194] There have been several cases where courts have had to issue access to information orders to enforce the right. In 2017, in a case filed by opposition leader Raila Odinga,[195] the Supreme Court issued an order granting him access to information on election results held by the Independent Electoral and Boundaries Commision (IEBC).[196] Despite the order, the IEBC refused to provide all the information requested, leading to the annulment of the election. In 2018, lawyer Apollo Mboya sued the monopoly electricity provider, Kenya Power seeking among others, information on inflated power bills.[197]

188 Data Protection Act, s.53

189 Open Government Partnership, *Members* https://www.opengovpartnership.org/members/kenya/

190 ICT Authority of Kenya *Open Data Portal.* Available at http://icta.go.ke/public-data-now-easier-to-find-as-open-data-unveils-a-user-friendly-website/

191 Government of Kenya *Open Government Partnership (OGP) National Action Plan III 2018 –2020.* Available from https://www.opengovpartnership.org/wp-content/uploads/2018/12/KENYA_Action-Plan_2018-2020_0.pdf

192 Executive Order No. 2 of 2018, available from https://openinstitute.com/wp-content/uploads/2018/07/Executive-Order-No.-2-of-2018-Procurement.pdf

193 See for example https://twitter.com/fredmatiangi/

194 Maureen K 2019, 'Access to public information an uphill struggle in Kenya despite law' *Business Daily* 27 February. Available from: https://www.businessdailyafrica.com/datahub/Access-to-public-information-an-uphill-struggle-in-Kenya/3815418-5002502-osnfrgz/index.html

195 Raila Odinga and another versus Independent Electoral and Boundaries Commission and others (2019) eKLR available from http://kenyalaw.org/caselaw/cases/view/140420/

196 Raila Odinga and another versus Independent Electoral and Boundaries Commission and others (2019) eKLR available from http://kenyalaw.org/caselaw/cases/view/140420/

197 Maina C 2018, 'Apollo Mboya sues KPLC, ERC over new 'discriminatory' charges' *The Star* 2 August. Available from: https://www.the-star.co.ke/news/2018-08-02-apollo-mboya-sues-kplc-erc-over-new-discriminatory-charges/

Likewise, in an ongoing case regarding Kenya's digital ID system, known as Huduma Namba, petitioners have complained to the court that they could not access information regarding the technology used in the project.[198]

A positive development was noted when the County Government of Makueni unveiled a portal containing information on all ongoing projects.[199] The County Government has also been lauded by civil society organizations for inclusive policy making, where county government officials engage residents in assessing their needs and priorities for government planning.[200]

One of the most utilized pieces of information online is the laws of Kenya maintained by the National Council for Law Reporting.[201] The *kenyalaw.org* portal contains information on laws, bills, case law, gazette notices as well as court cause lists. Another useful website is that of the Kenya National Bureau of Statistics which contains statistical information, including census data among other statistical reports of surveys conducted by the institution.[202] In addition, the African Open Data Centre has several visualizations built on census data.[203] It also includes data for open access, for example data on air quality in Machakos County.[204]

The IEBC publishes information on the voter register, election results and other election information online.[205] All this information is used by political parties and members of the public. However, in the 2017 election, some of the electoral information was misused to profile voters and send them targeted messages.[206]

Parliament also publishes information on its proceedings, status of Bills, committee reports as well as decisions.[207] Parliamentary proceedings are also broadcast live and streamed online by the state broadcaster, Kenya Broadcasting Communication (KBC). Citizen groups such as Mzalendo[208] analyze parliamentary data and rank Members of Parliament on their performance.

198 Chumba, B 2019, 'PS Kibicho Defends Huduma Namba in Court', *KBC*, 2 October. Available from: https://www.kbc.co.ke/ps-kibicho-defends-huduma-namba-in-court/ [2 October 2019].

199 County Government of Makueni *Projects* available from https://www.makueni.go.ke/projects/

200 Kariuki J 2018 'Makueni goes online to lift tendering veil' *Business Daily* 8 July. Available from: https://www.businessdailyafrica.com/news/counties/Makueni-goes-online-to-lift-tendering-veil/4003142-4652620-y1o2qw/index.html

201 Kenya Law. Available from: http://kenyalaw.org/kl/

202 Kenya National Bureau of Statistics. https://www.knbs.or.ke/

203 Hurumap *Making Census Data Easy to Use.* Available from: https://kenya.hurumap.org/

204 Code for Africa *Air Quality Datasets.* Available from: https://africaopendata.org/dataset

205 Independent Electoral and Boundaries Commission 2018 *Election Results.* Available from: https://www.iebc.or.ke/election/?election-results

206 Mutung'u G 2018,*The Influence Industry Data and Digital Election Campaigning in Kenya* available from: https://cdn.ttc.io/s/ourdataourselves.tacticaltech.org/ttc-influence-industry-kenya.pdf

207 Parliament of Kenya. Available from: http://parliament.go.ke/

208 Mzalendo *About.* Available from: http://info.mzalendo.com/info/mzalendo-overview

Mzalendo[209] and Jadili[210] are platforms for citizen interaction with Bills, Policies and parliamentary deliberations.

The Communications Authority publishes quarterly statistics reports on the status of the ICT sector. The report includes the services available and the number of persons accessing them. The statistics are compiled from returns filed by licensees of the authority. The statistics are used in government planning, and by other relevant stakeholders working in the sector. In 2019, the report indicated that the country had exceeded 100% mobile penetration.[211] This led to questions regarding the methods used to calculate the penetration rate as the statistics appeared not to take into account persons with multiple subscriptions of SIM cards.[212]

The Kenya Open Data Portal contains government datasets. It had been viewed 44 million times by 2015 and over 2.6 million people had interacted with the data.[213]

O E.2 Do government departments and local government agencies have websites which are available in all official languages and through all major browsers?

▶ ***Indicator:*** *Government policy to ensure provision of websites with appropriate language and browser access, and evidence concerning effective implementation*

The Government Enterprise Architecture Standards provide guidelines for the standardization of government systems. The policy, which is in its first edition, does not succinctly offer directions on the use of local languages. This is partly because the document majorly addresses government systems where government officials are the users. Consequently, although the Constitution provides for three national languages i.e. English, Swahili and Kenyan Sign Language; most of the websites are in English.

▶ ***Indicator:*** *Proportion of government services with websites (value/ranking in UNDESA online services index)*

The United Nations e-government survey 2018 ranked Kenya as fairly developed in the E-Government Development Index. Kenya is in the middle E-Government Development Index

209 Mzalendo *Dokeza- Give your views on Bills.* Available at https://dokeza.mzalendo.com/

210 Jadili *Add your voice.* Available at http://jadili.ictpolicy.org/

211 Communications Authority 2019, *Sector Statistics Quarter 4 2018/19* available from: https://ca.go.ke/wp-content/uploads/2018/12/Sector-Statistics-Report-Q1-2018-2019.pdf

212 Sunday F 2018, 'Kenya's Internet usage figures raise authenticity questions' *The Standard* 23 October. Available from: https://www.standardmedia.co.ke/article/2001300026/kenya-s-Internet-usage-figures-raise-authenticity-questions

213 CIO 2015 'Kenya Open Data portal hits 44 million page views'. Available at

(EGDI) 2018 (Between 0.25 to 0.50).[214] With regard to the level of online service index, Kenya is ranked as high OSI in relation to the corresponding EGDI level. E-participation is defined as the process of engaging citizens through ICTs. Kenya is ranked as high EPI (between 0.50 and 0.75). In the e-government development index, Kenya is ranked as 122. On the demand side, many residents while grateful for decentralization of government services express disquiet at the high cost of accessing these services. This is because many users are not digitally literate and therefore have to depend on the services of intermediaries to access e-government services. A typical service such as the filing of tax returns, costs Ksh. 400 (USD 4) at a cyber cafe in Nairobi.

Challenges

There are several challenges that hamper openness in Kenyan ICT space. They include:

1. The lack of non-commercial perspectives in conceptualizing provision of ICTs. Hence the licensing frameworks are largely focused on facilitating commercial players.
2. The disruptive nature of the Internet has resulted in cross and co-regulation of ICT players. This sometimes results in competition among regulators to the detriment of the players.
3. There is a vacuum on how to approach new technologies e.g. cryptocurrencies. This sometimes slows down innovation, particularly where a regulator approaches new technology from an old regulatory model.
4. Kenya has not adopted open standards; hence many government MDAs procure technology that may not be open. There is danger of vendor lock in. In addition, closed standards may deny local technologists transfer of knowledge.
5. PWDs face numerous challenges in accessing technology. There is a need for more awareness and policies for accessibility of government services online.
6. The domination of the Kenyan Internet market by one company, Safaricom, raises challenges in balancing between regulation of competition while encouraging growth of the industry.
7. The lack of utilization and optimization of the universal service fund creates doubts as to the efficacy of universal service funds in enhancing access to the Internet.
8. The lack of awareness and fear about open educational resources may result in OER not being promoted in ongoing education reforms.
9. Regulatory discretion in areas such as spectrum allocation makes the process uncertain.

214 United Nations 2018 e-government survey. Available from: https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf

10. The low representation of stakeholder groups such as civil society and academia in policy making means that the country misses out on varied perspectives. It may also explain the high number of court cases challenging ICT policy decisions.

11. Lack of awareness and an information sharing culture among MDAs dilutes the enjoyment of the right of access to information.

12. Lack of access to the Internet coupled with low levels of digital literacy hampers e-government as people incur more expenses to use intermediaries to access these services.

13. Due to lack of net neutrality rules in Kenya there is a possibility of international technology multinationals defining what net neutrality should look like at the expense of local players in the technology industry.

14. There is a need for enforcement of the open standards created and to have someone who can be held to account for lack of enforcement.

4

Policy Recommendations for Various Stakeholders

Government

- Review the licensing framework to include non-commercial business models for provision of ICT services. These include community networks.
- Adopt the multistakeholder model, where they consult all parties. For example, regulation of cryptocurrencies could benefit from research by academia, policy perspectives from civil society as well as experience in regulating ICTs from ICT regulators.
- Encourage the use of free and open software in its ranks, as this promises more transfer of knowledge hence more holistic development.
- Enforce directives on accessibility by ensuring that all broadcasters comply with requirements for making their content accessible to persons with disabilities.
- Publish information on consumer complaints handled.
- Regularly update and publish data for open access. This includes data on open contracting.
- Adopt open data standards, for example publishing data in machine readable formats, especially for Government departments that publish data.
- Sensitize its officers on the importance of open data and access to information, so that the officers stop creating barriers to these resources.
- Pilot other methods of access to e-government services, particularly for marginalized and underserved persons, to cushion them from additional barriers to accessing the services. For example, the government could partner with educational institutions for their facilities to serve as e-government centers and officers in those facilities to work part-time in the centers.
- Develop a policy that guarantees its websites have content in local languages and formats that are widely understood. This includes local languages as well as videos, for example with instructions on application for passports.
- Train officials on the process of digitizing information and the importance of this in terms of access to information by the citizens.
- Facilitate discussion on Kenyan perspectives on network neutrality, to assess how the issue applies locally. Unique Kenyan challenges such as lack of uniform Internet access and the frameworks that support neutrality.

- Address the lack of proper protection for, and the inadequate measures to punish intellectual property infringement.

Private sector

- Collaborate more with universities in research. Public universities which are poorly funded but well-resourced with academics are a ready resource on many issues including increasing access to the Internet and advancing local content.
- Invest more in research and development.
- Innovate and develop software and applications using open source software.
- Participate in policy making processes to promote the use of open standards.

Academia

- Carry out research for informed decision-making on the issue of net neutrality. There is also need for research on the effects of zero-rated services offered by mobile network companies.
- Make use of available open data to share insights on the society. They should also give feedback to the open data producers on the challenges they face while using the data.
- Curate government content and make it available for use by the public.

Civil Society

- Rank government websites and portals for ease of use.
- Improve the accessibility of their websites. For example, website content should as far as practicable be in machine readable format to accommodate those with visual and other disabilities. Consumer engagement mechanisms on websites should also be designed to be inclusive to the digitally illiterate and semi-literate as well as persons with disabilities.
- Share more policy perspectives on the role of free and open software in the development of the Internet in Kenya.
- Create awareness on consumer digital rights.
- Analyze the nature of complaints so as to advocate for more long-term solutions for the most pressing problems. For example, consumer complaints on unsolicited political messaging could be resolved through policy interventions such as requiring bulk SMS operators to be accountable for messages sent through their systems.

A

Accessibility to All

5

CATEGORY A **ACCESSIBILITY TO ALL**

5

THEME A
Policy, Legal and Regulatory Framework

A.1 Is statistical information concerning access and use of Internet regularly gathered by national statistical systems and/or other competent authorities, on a systematic basis?

▶ ***Indicator:*** *Arrangements for gathering aggregate and disaggregated statistical information, from diverse sources, including the inclusion of relevant questions in household surveys*

Statistical information concerning access and use of the Internet is regularly gathered by the Communications Authority (CA). The license agreement granted by the CA obliges Internet Services Providers (ISPs) to provide Internet usage data on a quarterly basis. The 2019 Communications Authority of Kenya Sector Statistics for January to March 2019 puts the percentage of total Internet users at 97%.[215] However, the statistics have been criticized as not being completely accurate or reliable because given the methodology adopted to calculate the results. For example, mobile Internet users are established by the number of SIM-cards registered instead of unique users, as one person can have multiple devices with multiple SIM cards.

Additionally, the CA partners with the Kenya National Bureau of Statistics (KNBS) in conducting regular household surveys.[216] In 2010, the CA and KNBS carried out a National ICT Survey,[217] which provided gender and regionally disaggregated data on ICT use. The KNBS also collects information concerning ICT access during the national census held every 10 years.

215 Communications Authority of Kenya, Industrial Research and Statistics, Available from: https://ca.go.ke/wp-content/uploads/2019/06/Sector-Statistics-Report-Q3-2018-19.pdf [20 September 2019].

216 Kenya National Bureau of Statistics, 2018, KENYA - Kenya Integrated Household Budget Survey 2015-2016, KNBS, Available from:http://statistics.knbs.or.ke/nada/index.php/catalog/88 [1 September 2019]

217 Communications Commission of Kenya, 2010, National ICT Survey Report, Available from: https://ca.go.ke/wp-content/uploads/2018/02/National-ICT-Survey.pdf [5 September 2019]

AA.4 Does the government have a policy and programme to implement universal access to reliable, affordable broadband, and is this effectively implemented?

▶ ***Indicator:*** *Adoption of a universal access strategy and evidence of effective deployment of UA resources*

There are no specific laws that expressly provide for entitlement to Internet access. However, there are some laws that promote access to information such as Article 35 of the Constitution[218] statutes such as the Access to Information Act, 2016. Likewise, freedom of the media is provided under Article 34 of the Constitution and the right of access to information is provided under article 35 of the Constitution.[219]

Kenya's e-Government strategy was launched in 2004[220] and it seeks to increase the efficiency of public service provision.[221] Further, the *ecitizen.go.ke* portal provides a one-stop platform through which services by different government ministries are offered to citizens. These include: filing tax returns, obtaining driver's licenses, marriage certificates, business registration, land searches, visa and passport applications, and payment for the services. Essential services such as payment of taxes, application for a birth certificate, and drivers license can only be issued through the portal. This means that citizens require Internet access to obtain the services.

Internet penetration rates have grown tremendously over the years influencing increased digitization of government services. For wider reach, government agencies communicate and publish important public information through social media and websites.

Kenya has put in place measures to promote universal access to communications and the Internet. The Kenya Communications (Amendment) Act, 2009 established a Universal Access Fund (USF). The fund is financed by mandatory contributions of 0.5% of the profit of licensed telecommunications companies. The USF has a Board established to provide a framework for the management and administration of the fund.[222] The fund carries out four key programmes: mobile telephone network expansion that seeks to cover mobile networks gaps; community

218 Kenya Law Reform Commission, 35. Access to information - Kenya Law Reform Commission (KLRC), Available from: http://www.klrc.go.ke/index.php/constitution-of-kenya/112-chapter-four-the-bill-of-rights/part-2-rights-and-fundamental-freedoms/201-35-access-to-information [3 September 2019]

219 Kenya Law Reform Commission, 35. Access to information - Kenya Law Reform Commission (KLRC), Available from: http://www.klrc.go.ke/index.php/constitution-of-kenya/112-chapter-four-the-bill-of-rights/part-2-rights-and-fundamental-freedoms/201-35-access-to-information [3 September 2019]

220 Ministry of Information, Communication and Technology, 2004, E-government Strategy Accessed from: http://www.ict.go.ke/wp-content/uploads/2019/05/KENYA-E-GOVERNMENT-STRATEGY-2004.pdf [25 August 2019]

221 Ministry of Information, Communication and Technology, 2004, E-government Strategy Accessed from: http://www.ict.go.ke/wp-content/uploads/2019/05/KENYA-E-GOVERNMENT-STRATEGY-2004.pdf [25 August 2019]

222 Communications Authority of Kenya, Purpose of the Fund, Available from: https://ca.go.ke/wp-content/uploads/2018/02/Universal-Service-Fund-Framework.pdf [5 October 2019]

broadband networks that establish broadband connections at major community service locations; ICT content applications, where the fund will promote the development of relevant local content; and, ICT capacity building and awareness.

The spectrum regulation framework stipulates that all spectrum should be allocated through reasonable pricing in accordance with the importance and use in the economy. In practice, spectrum has been allocated through auctions and on a first come first serve basis and some have been allocated for community based projects such as radio programs.[223] However, challenges noted are that in some cases, spectrum is allocated to players who do not make use of it and at the same time, there is no policy to address this.

Over the years, there has been limited communication to the public on the use of the fund. Recently, the CA has been proactive in communicating the impact of the USF through video productions of the impact of USF in the newly covered regions.[224] The CA conducted an ICT Access Gaps study in 2016 where it identified communication gaps within the country.[225] The fund was applied to implement projects designed to address the gaps identified by the study. Through discussions on the Kenya ICT Action Network (KICTAnet) mailing list, the CA gave some examples on how the USF was used to provide affordable broadband to the masses.[226] According to the report, 62 sub-locations within Kenya had benefited from the mobile voice infrastructure project executed through the fund.[227] The CA had also connected over 600 secondary schools out of an initial projection of 896 schools in their Education Broadband Connectivity Project.[228]

The National Broadband Strategy 2018 - 2023 is aimed at transforming Kenya into a globally competitive knowledge-based society enabled by affordable, secure and fast broadband connectivity.[229] Further, the government is also implementing a project to create 4 ICT hubs in each of the 290 constituencies, and equip them with computers and the Internet.[230] Additionally,

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223 Info Dev, 2010, National Broadband; build it and they will come, Available from: https://www.infodev.org/infodev-files/resource/InfodevDocuments_1108.pdf [18 November 2019]

224 KICTANet, August 19, 2019, [kictanet] Two videos on Network Coverage in Bungoma and Kitui Counties, and in Turkana and Marsabit, Available from: https://lists.kictanet.or.ke/pipermail/kictanet/2019-August/035046.html [12 October 2019]

225 Communications Authority of Kenya, 2016, ICT Access Gap Study, Available from: https://ca.go.ke/industry/universal-access/ict-access-gap-study/ [10 September 2019]

226 KICTANet, 24 April 2019, [kictanet] Online discussion on State of Broadband in Kenya, Available from: https://lists.kictanet.or.ke/pipermail/kictanet/2019-April/034423.html [10 September 2019]

227 KICTANet, 29 April 2019, [kictanet] Online discussion on State of Broadband in Kenya, Available from: https://lists.kictanet.or.ke/pipermail/kictanet/2019-April/034462.html [10 September 2019]

228 KICTANet, 10 September 2019, [kictanet] Two videos on Network Coverage in Bungoma and Kitui Counties, and in Turkana and Marsabit, Available from: https://lists.kictanet.or.ke/pipermail/kictanet/2019-September/035087.html [10 September 2019]

229 Republic of Kenya, 2019, National Broadband Strategy 2018-2023, Available from: https://ca.go.ke/wp-content/uploads/2019/05/Kenya-National-Broadband-Strategy-2018-2023.pdf [10 September 2019]

230 National Government CDF, 2019, THE CONSTITUENCY INNOVATION HUB PROJECT, Accessed from: https://www.ngcdf.go.ke/index.php/news/74-the-constituency-innovation-hub-project [13 September 2019]

the country has 64 public libraries in 35 of the 47 counties.[231] Public libraries managed by Kenya National Library Service provide free Internet, and computers for public access. Users can also bring their own devices to access the Internet. However, access to the library is subject to a small convenience fee of ksh 20 (about $0.2) per day.[232] The government has also established Huduma Centres in every county, which serve as focal points for offering e-government services. The centres have computers which serve as cyber cafes at a small convenience fee.

THEME B
Connectivity and Usage

AB.1 What proportion of the population uses the Internet, with what frequency, and is this proportion growing?

▶ ***Indicator:*** *Proportion of households with Internet access*

Access to and the use of the Internet has increased over the years due to continued investment in the sector by the government and the private sector. As of September 2019, the total Internet subscriptions stood at 52 million, out of which 48.4 percent (25.2 million) were on broadband.[233] As of 2016, the International Telecommunication Union reported that 30% of households in the country had Internet access.[234]

The growing numbers of social media users is an indicator of improved connectivity and usage. WhatsApp is the most widely used social media platform with 12 million users.[235] Possible reasons could be that the cost of instant messaging is low compared to Short Message Services (SMS) that are charged per message, and that it allows for better group coordination. An interesting development is the growth of podcasting and vlogging by numbers and diversity of

231 Kenya National Library Service, 2017, Contact Us, Available from: https://www.knls.ac.ke/index.php/contact-us [14 September 2019]

232 Kenya National Library Service, 2017, Fees & Pricing Available from: https://www.knls.ac.ke/index.php/shapebootstrap [14 September 2019]

233 Communication Authority of Kenya, September 2019, Sector Statistics Report, Available from: https://ca.go.ke/wp-content/uploads/2019/12/Sector-Statistics-Report-Q1-2019-2020.pdf

234 International Telecommunication Union, June 2019, Core indicators on access to and use of ICT by households and individuals, International Telecommunication Union, Available from: https://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2019/CoreHouseholdIndicators_Jun2019.xlsx [3 September 2019]

235 Airtel Now Offers More Data, Free WhatsApp On Its Amazing Data Bundles https://airtel.africa/media/more-data-free-whatsapp

content. Video content creation has become popular both as main careers and as a hobby.[236] Table 2 below shows the number of social media platform users in the country.

Table 2. Number of Social media users in Kenya in 2017

Platform	Number of Users per Month
Whatsapp	12 Million
Facebook	7.1 Million
Youtube	8 Million
Instagram	4 million
Linkedin	1 Million
Twitter	1 Million
Snapchat	0.25 Million

Source: Nendo Social Media Report 2017237

According to a Hootsuite research,[238] the active social media users were 8.2 million with a population penetration rate of 16%. Of that, the mobile social media users were 7.7 million representing 15% penetration rate. The After Access report put the social media users in Kenya at 25% from a 2017 research.[239]

AB.3 What proportion of the population subscribes to communications/broadband services, and is this growing?

▶ ***Indicator:*** *Percentage of individuals who own a mobile phone, aggregate and disaggregated*

According to the 2019 CA report, the total fixed broadband users are 402,103, which is approximately 0.84% of the population. In 2016, Kenya had a maximum capacity of 848 Gbps and utilized 467 Gbps. By 2019 capacity increased by 458% and usage similarly increased by 101% to 977 Gbps.

236 Bloggers Association of Kenya, 2017, State of the Internet in Kenya Report: https://www.ifree.co.ke/wp-content/uploads/2018/02/State-of-the-Internet-in-Kenya-report-2017.pdf, [17 November 2019]

237 Nendo Social Media Report, 2017, How Kenyans Use their Data: https://www.nendo.co.ke/data [17 November 2019]

238 Hootsuite and We Are Social, 2019, Digital 2019 Kenya (January 2019) v01, Available from: https://www.slideshare.net/DataReportal/digital-2019-kenya-january-2019-v01 [13 September 2019]

239 After Access, 2017, Let the people speak: using evidence from the Global South to reshape our digital future, Available From: https://afteraccess.net/wp-content/uploads/AfterAccess_IGF2017v2_1.pdf [17 October 2019]

▶ ***Indicator:*** *Number of fixed broadband subscriptions per hundred population, aggregate and disaggregated*

Kenya's fixed-broadband market is dominated by four telecom operators, taking 84% of market share in 2018; Wananchi Group 37%, Safaricom 18%, Mawingu 15% and Jamii telecoms 12%. Wananchi Group Holdings owns Zuku, which was the first provider to push for Fiber to home connectivity in Nairobi in 2012. Today, Safaricom, Jamii telecom and other small and medium enterprises offer fiber to home connectivity, and are spreading to other major cities in the country. In effect, Kenya's fixed-broadband market grew by 82.3% year-over-year in 2017.[240]

Table 3. Broadband Subscriptions by Speed 2014-2018

Fixed broadband speed	2014	2015	2016	2017	2018
≤ 256Kbps	2,272	2,500	862	854	570
>256Kbps ≤ 512Kbps	10,572	3500	4,808	2,927	505
>512Kbps ≤ 1Mbps	62,146	18,000	22,702	14,459	8,905
>1Mbps ≤ 2Mbps	3,810	4,000	33,574	96,391	87,772
>2Mbps	9,567	69,000	91,046	173,672	273,746

Source KNBS241

▶ ***Indicator:*** *Number of unique active mobile broadband subscribers per hundred population, by bandwidth, aggregate and disaggregated*

According to the GSMA, the percentage of population covered by mobile broadband signal is 78.6%. This is disaggregated as follows: 95.3% on 2G, 88.0% on 3G, and 61.0% on 4G. The number of 4G technology mobile transceivers grew from 3,873 in 2017 to 7,469 in 2018.[242] In 2018 mobile phone penetration was at 103% per 100 inhabitants.[243] This was attributed to ubiquitous use of mobile money transfer services and consumer behavior; and, owning more than one SIM card to take advantage of the different voice, data and mobile transfer offers by different mobile service providers.

240 S&P Global, 2017, Kenya Fixed Broadband, FTTH Fixed Wireless Improving Access Speeds, Retrieved from:https://www.spglobal.com/marketintelligence/en/news-insights/research/kenya-fixed-broadband-ftth-fixed-wireless-improving-access-speeds [20 November 2019]

241 Kenya National Bureau of Statistics, 2019, Economic Survey, Available from: https://www.knbs.or.ke/download/economic-survey-2019/ [19 November 2019]

242 GSMA, 2018, GSMA Mobile Connectivity Index, Available from: http://www.mobileconnectivityindex.com/#year=2018&zonelsocode=KEN&analysisView=KEN [20 October 2019]

243 Kenya National Bureau of Statistics, 2019, Economic Survey, Available from: https://www.knbs.or.ke/download/economic-survey-2019/ [19 November 2019]

According to the ITU, 68.2% of individuals were using a mobile phone in 2015.[244] Recent research by the GSMA puts mobile phone ownership at 50.6%.[245] The average mobile download speed in Kenya is at 16.87mbps, while the average upload speeds are at 6.88 mbps.

Table 4. The average speeds offered by the major mobile service providers in Kenya

Carrier Name	Download Trimean	Upload Trimean
Safaricom	20.97	9.29
Orange	15.93	7.83
Airtel	9.29	2.55

Source: Ookla report 2017246

There is no data on domestic Internet bandwidth per Internet user disaggregated by district. As of 2016, the International Internet bandwidth per user was 25.2kbps.[247] Kenya experienced a year-on-year average growth rate of 141.08% for the time period 2012 to 2016. Among the selected countries, Kenya had the highest year-on-year average growth rate at 141.08%. Data from Packet Clearing House showed that peak data of 9.4G was transferred through the Nairobi Kenya Internet Exchange Point in 2019, with the average data transfer being 5.3G.[248]

A report by After Access, with a nationally representative survey sample size of 1,208 of ICT access and use by households and individuals put mobile ownership at 87% of the population. Of those who own mobile phones, 59% owned a basic phone, 28% a smartphone, and 14% a feature phone.[249]

According to the ITU,[250] mobile cellular telephone subscriptions as of 2018 stood at 49,501,430. From further analysis, it seems ITU took the total number of SIM card subscriptions. Mobile phone subscriptions per 100 users was 73.84 as of year 2016.[251] Kenya experienced a year-on-year

244 ITU, Mobile Cellular Statistics 2000-2008: https://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2019/CoreHouseholdIndicators_Jun2019.xlsx [25 October 2019]

245 GSMA, 2018, GSMA Mobile Connectivity Index, Available from: http://www.mobileconnectivityindex.com/#year=2018&zoneIsocode=KEN&analysisView=KEN [20 October 2019]

246 Ookla, 2017, Speed Test Awards Report, Available from: https://www.speedtest.net/awards/reports/2017/2017_Kenya_Safaricom_Mobile.pdf [25 October 2019]

247 The World Bank, 2016, Int'l Internet bandwidth, kb/s per user, Available from: https://tcdata360.worldbank.org/indicators/entrp.inet.bandwidth?country=KEN&indicator=3405&viz=line_chart&years=2012,2016 20 October 2019]

248 Packet Clearing House, 2019, Internet Exchange Directory, https://www.pch.net/ixp/dir [1 October 2019]

249 After Access, The Inside Internet Story of Africa, Asia, and Latin America, Available from: https://afteraccess.net/wp-content/uploads/After-Access-Website-layout-r1.pdf [22 October 2019]

250 ITU, Mobile Cellular Statistics 2000-2008, Available from: :https://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2019/CoreHouseholdIndicators_Jun2019.xlsx [25 October 2019]

251 The World Bank, 2016, Mobile phone subscriptions/100 pop., Available from: https://tcdata360.worldbank.org/indicators/entrp.mob.sub?country=KEN&indicator=3423&viz=line_chart&years=2012,2016 [25 October 2019]

average growth rate of 4.67% for the time period 2012 to 2016. Among the selected countries, Kenya had the lowest year-on-year average growth rate at 4.67%.

According to ITU, the number of fixed broadband subscriptions per hundred population was 0.72 as of 2018.[252] Kenya experienced a year-on-year average growth rate of 108.52% for the time period 2005 to 2018.[253]

During the fourth quarter of the 2018/19 financial year, the number of broadband subscriptions stood at 22.2 million.[254] Fixed broadband subscriptions were 422,345. There is no data on unique mobile broadband subscribers; but using the available Communications Authority of Kenya data, the number of unique mobile broadband users can be calculated using the formula: Total broadband subscribers subtract Fixed broadband. This gives the total number of unique mobile broadband users at 21,777,655.

Table 5. Number of unique broadband subscribers in Kenya 2014 - 2018

	2014	2015	2016	2017	2018
Mobile phone subscribers per 100 inhabitants	78.30	85.41	85.93	91.89	103.45
Wireless Internet subscribers per 100 inhabitants	38.10	53.90	58.50	71.20	94.90
Internet Subscribers per 100 Inhabitants	38.30	54.19	58.82	71.61	95.52
Bits per second per capita	12,157.90	20,292.80	19,890.40	20,630.20	2 5,033.17
Broadband subscription per 100 inhabitants (wireless)	9.68	16.20	27.70	36.50	45.20
Broadband subscription per 100 inhabitants (Fixed)	9.88	16.40	28.00	37.12	45.92

Source: KNBS 2019

252 ITU, Fixed Broadband 2000 Jun - 2019 Jun Statistics, Available from: ttps://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2019/Fixed_broadband_2000-2018_Jun2019_revised27082019.xls

253 The World Bank, 2018, Fixed broadband subscriptions (per 100 people), Available from: https://tcdata360.worldbank.org/indicators/h588c14bc?country=KEN&indicator=1742&viz=line_chart&years=1998,2018 [25 October 2019]

254 Communication Authority of Kenya, June 2019, Sector Statistics Report Q4 2018-19, pg19, Available from: https://ca.go.ke/wp-content/uploads/2019/09/Sector-Statistics-Report-Q4-2018-19.pdf. [31 September 2019]

▶ ***Indicator:*** *Number of IP addresses within the country, per hundred population*

Kenya has a total of 5,688,554 IP addresses assigned.[255] The total population from 2019 census is 47,564,296,[256] giving the number of IP addresses per 100 as 11.96 IP addresses (12%).

AB.4 What barriers to access are identified by users and non-users of the Internet?

▶ ***Indicator:*** *Perceptions (by users and non-users) of barriers to their Internet access and use, aggregate and disaggregated, from household surveys and/or other sources*

There is no aggregate data on access barriers identified by users. However, the perception barriers for non-users identified were: illiteracy, lack of content in local languages, lack of digital skills, and physical accessibility challenges. Perception barriers identified for users were; data affordability, device affordability, content concerns, privacy and security, gender issues, and electricity.[257]

The government has developed surveys and consultation arrangements that seek to address these variations of access and use in the different regions and among groups. The CA regularly holds public consultative meetings across the country named *Kikao Kikuu*,[258] which is Swahili for "great gatherings". During the last census in 2019, the public was asked whether they used the Internet, had a modem, and whether they have ever shopped online.

Also, there are several surveys that have been carried out on perceptions of the Internet. One survey by After Access[259] interviewed 1,208 respondents from across Kenya. On barriers to Internet usage, 27 respondents indicated that they did not know what the Internet was, 21 said they did not have a device to access the Internet, 12 said they did not know how to use the Internet, 4 said the Internet was too expensive, and 36 said they had other reasons on the barriers to Internet use. On barriers to mobile ownership, 58 said they could not afford a mobile phone, 23 said they did not have mobile coverage where they live, 44 said they did

255 IP2Location, 2019, Kenya IP Address Ranges, Available from: https://lite.ip2location.com/kenya-ip-address-ranges [25 October 2019]

256 Kenya National Bureau of Statistics, 4 November 2019, 2019 Kenya Population and Housing Census Results, Available from:https://www.knbs.or.ke/?p=5621 [6 November 2019]

257 Research ICT Africa, 2017, Internet use, Barriers and Strategies: Perceptions from Kenya, Nigeria, Rwanda and South Africa, Available from: https://www.researchictafrica.net/docs/RIA%202016%20Comparative%20FGD%20study_Final_Web%20version.pdf [25 September 2019]

258 Communications Authority of Kenya, 8 January 2018, Kikao Kikuu, Available from: https://ca.go.ke/kikao-kikuu/ [28 October 2019]

259 After Access, The Inside Internet Story of Africa, Asia, and Latin America, Available from: https://afteraccess.net/wp-content/uploads/After-Access-Website-layout-r1.pdf [22 October 2019]

not have electricity at home to charge the mobile phone, and 18 said they did not know how to use mobile phones.

Some of the respondents interviewed noted that fixed and mobile broadband services are largely concentrated in cities and large towns. They also explained that they were unable to access the same quality of service when they travelled outside urban areas. This is corroborated by the 2017 Access Gaps Study commissioned by the Communications Authority.[260] The study found that some 164 administrative areas had no access to 2G networks at all, while in a further 418 areas, only less than 50% of the population had access to the networks. The study also established that 3G network coverage was completely unavailable in 1244 out of 7,149 administrative sub-locations. Also, that in some 977 locations, 3G was available to less than 50% of the population.

The blogging industry has grown significantly both in terms of numbers and in terms of diversity of content. There are affordable and free online services for individuals to express their views. Most individuals and civil society organizations express their views on free platforms such as wordpress.com, Facebook, Medium, Blogspot, Youtube, Twitter, and Instagram. There are 83 registered domain registrars who also offer website hosting, and domain name registration.[261] Domain and hosting prices (combined cost about 40 USD) are not affordable to the low income populations.

THEME C
Affordability

AC.1 Are mobile handsets capable of Internet connectivity affordable to all sections of the population?

► ***Indicator:*** *Cost of a) entry-level mobile handset and b) smartphone as a percentage of monthly GNI p.c.*

Access to the Internet is expanding, and is largely driven by mobile broadband. As of September 2019, Kenya has a mobile penetration of 112%, and following the same trend, Internet

260 Communications Authority 2017, *Access Gaps Study Report* available from: https://ca.go.ke/wp-content/uploads/2018/02/ICT_Access_Gap_Study.pdf

261 KENIC, 2018, Licensed Registrars, Available from: https://www.kenic.or.ke/index.php/en/licensed-registrars/licensed-registrars/page-6 [26 September 2019]

penetration rate is also considerably high at 52 million subscriptions.[262] A major driving factor for this trend is the availability of more affordable feature phones that are Internet enabled. The cost of the cheapest Internet enabled feature phone or smartphone as a proportion of monthly GDP per capita is 33.[263]

Entry-level fixed broadband as of September 2019 was KES 2,900 (USD 29) for a 5 Mbps link from Safaricom,[264] KES 2,499 (USD 24.9) for 5 Mbps link from Zuku,[265] and KES 1,500 (USD 15) for a 2 Mbps link from Poa Internet.[266] In a survey conducted by After Access, 4.6% of males and 3.4% of females expressed that Internet access was expensive.[267] And speed of entry level broadband, according to the ITU, is at 30 Mbit/s.[268]

AC.2 Is broadband access and use affordable to all sections of the population?

▶ ***Indicator:*** *Cost of entry-level fixed broadband connection and use as a percentage of monthly GNI p.c*

The monthly cost of a 100 MB prepaid mobile broadband data plan (expressed as a proportion of monthly GDP per capita) is 47.8. The monthly cost of a 500 MB mobile broadband data plan (expressed as a proportion of month GDP per capita) is 47.5, and monthly cost of a 1 GB mobile broadband data plan (expressed as a proportion of monthly GDP per capita) is 47.9.

Mobile broadband connection as a percentage of Monthly GNI per capita through analysis of various service providers is shown on the table below. Safaricom[269] offered monthly Internet bundles of 2 GB at USD 5, 5 GB at USD 10, and 25 GB data at USD 30. Airtel[270] offered 1.5 GB at USD 3, 4 GB at USD 5, and 10 GB at USD 10. Faiba 4G from Jamii Telecommunications Limited[271] did not have comparable monthly plans, but it had 25 GB data at USD 10, 40 GB data at USD 20, and 70 GB data at USD 30.

262 Sector Statistics Report https://ca.go.ke/wp-content/uploads/2019/12/Sector-Statistics-Report-Q1-2019-2020.pdf

263 GSMA, 2018, GSMA Mobile Connectivity Index, Available from: http://www.mobileconnectivityindex.com/#year=2018&zlyoneIsocode=KEN&analysisView=KEN [20 October 2019]

264 Safaricom, October 2019, Safaricom Home Fibre, Available from: https://www.safaricom.co.ke/home/home-fibre.php [25 October 2019]

265 Zuku, October 2019, Home Internet, Available from: https://zuku.co.ke/triple-play/ [25 October 2019]

266 Poa Internet, 2019, Available from: https://poa.co.ke/ [25 October 2019]

267 After Access, Reports - After Access, Available from: https://afteraccess.net/reports [3 October 2019]

268 https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2018/MISR-2018-Vol-1-E.pdf

269 Safaricom PLC, 2019, Zidisha Plus Data Bundles, Available from: https://www.safaricom.co.ke/business/sme/mobile-solutions/zidisha-plus-data-bundles [20 September 2019]

270 Airtel Kenya, 2019, airtel: Prepaid | Postpaid | 4G, Available from: https://www.airtelkenya.com/Internet-amazing-data-bundle [20 September 2019]

271 Faiba 4G, 2019, Faiba Mobile Products, Available from: https://faiba4g.co.ke/4g [21 September 2019]

Table 6. A comparison of Safaricom, Airtel and Jamii Faiba 4G

Safaricom Monthly data	Monthly GNI pc	Airtel Monthly data	Monthly GNI pc	Faiba 4G Monthly data	Monthly GNI pc	Telkom Monthly data	Monthly GNI pc
2 GB at USD 5	3.2%	1.5 GB at USD 3	1.9%	25 GB at USD 10	6.5%	1 GB at USD2.5	1.6%
5 GB at USD 10	7.8%	4 GB at USD 5	3.2%	40GB at USD 20	13%	4 GB at USD 5	3.2%
25 GB at USD 30	19.5%	10 GB at USD 10	6.5%	70 GB at USD 30	19.5%	10 GB at USD15	9.75%

Practical data as of September 2019 for three cellular networks. A comparison of Safaricom, Airtel, and Jamii Telecommunications Limited's Faiba 4G.

According to the 2017 ITU data, 0.7GB accounts for 4% of the monthly GNI per capita. The World Bank indicated Kenya's affordability index in 2016 as 4.31. The country experienced a year-on-year average growth rate of 6.72% for the time period 2012 to 2016.[272]

Kenya has a number of zero-rated services and initiatives from the government and private sector, which help in improving Internet affordability. Availability of zero-rated services have been pushed by the stiff competition in the mobile service industry and marketing trends. Airtel Kenya and Safaricom offer Free WhatsApp, free Facebook,[273] and free Wikipedia that are non-exhaustible under bundle offers.

Additionally, the Universal Service Fund (USF) framework has a Community Broadband Networks component whose purpose is to take zero-rated broadband connectivity into towns and villages where broadband is currently unavailable. It aims to establish broadband connections at major public institutions within designated locations such as: schools, health facilities, government offices, post offices, libraries, and other community service locations.[274]

Some service providers have also launched price packages that target special and low income groups. For example, Safaricom has age specific products such as the Safaricom blaze offered to the youth under 26 years with cheaper Internet bundles with zero-rated access to some Internet platforms like Whatsapp.[275]

272 The World Bank, 2016, 4th pillar: Affordability, Available from: https://tcdata360.worldbank.org/indicators/entrp.afford?country=KEN&indicator=3481&viz=line_chart&years=2012,2016 [20 October 2019]

273 Safaricom PLC, March 2019, Free Facebook Terms and Conditions, Available from: https://www.safaricom.co.ke/free-facebook-terms-and-conditions [21 September 2019]

274 Communications Authority of Kenya, Universal Service Fund Framework, Available from: https://ca.go.ke/wp-content/uploads/2018/02/Universal-Service-Fund-Framework.pdf [5 October 2019]

275 Safaricom PLC, 2019, bundles - BLAZE, Available from: https://blaze.co.ke/bundles/ [15 September 2019]

THEME D
Equitable Access

AD.1 Are there significant differences in broadband access and use between regions and between urban and rural areas?

▶ ***Indicator:*** *Geographical coverage in urban and rural areas, by level of bandwidth*

There are significant differences in broadband access and use between regions and between urban and rural areas. The *After Access Survey*[276] found that the number of Internet users in rural areas was 17%, and those of urban areas at 55%. Also, more options for Internet connectivity are available in urban areas than in rural areas. In urban areas, there is fixed broadband, 3G and 4G bundled mobile broadband and satellite; while there are wide variations in quality of connectivity in the rural areas. Data from nPerf shows that most of the regions away from the centre of the country like in the Northern parts of the country don't have access at all.[277]

Moreover, as shown in the chart above, infrastructure investment has followed the discriminatory policy both in the colonial and early years of post-independence. In 1896, the Kenya - Uganda Railway was built along the lower part of Kenya, connecting Mombasa, Nairobi, Busia and Kisumu, to transport agricultural products across these regions and outside the country.[278] The country has continued to build other infrastructure along the railway line. Using the nPerf data, it is apparent that there is very low connectivity and Internet enabling infrastructure outside the main transport corridor. The northern and far east part of Kenya has much lower coverage.

The data available from different sources have not been disaggregated to give comparisons of connectivity between urban and rural areas and in different regions. However, the nPerf[279] graph shows the regions without any mobile network coverage, meaning that the communities that live in those regions do not have broadband access. This probably explains why smartphone penetration in rural areas stood at 17% compared to that of urban areas at 55%, and social media use at 49.5% in urban areas compared to 16% in rural areas.[280]

276 After Access, The Inside Internet Story of Africa, Asia, and Latin America, Available from: https://afteraccess.net/wp-content/uploads/After-Access-Website-layout-r1.pdf [22 October 2019]

277 Nperf, Safaricom 3G / 4G / 5G coverage map, Kenya, Available from: https://www.nperf.com/en/map/KE/-/2665.Safaricom/signal/ [23 September 2019]

278 Kenya Railways Corporation, Kenya Railway History, Available from: http://krc.co.ke/?page_id=216 [17 October 209]

279 Nperf, Safaricom 3G / 4G / 5G coverage map, Kenya, Available from: https://www.nperf.com/en/map/KE/-/2665.Safaricom/signal/ [23 September 2019]

280 After Access, 2017, Let the people speak: using evidence from the Global South to reshape our digital future, Available From: https://afteraccess.net/wp-content/uploads/AfterAccess_IGF2017v2_1.pdf [17 October 2019]

AD.5 Do adults in all age groups make use of the Internet to the same extent?

▶ ***Indicator:*** *Proportion of adults in different age groups who are using the Internet, and frequency of use, including disaggregation by sex*

The proportion of men who had undergone secondary education as of 2009 was 84% and that of women was 80%.[281] According to the World Bank, the total Adult literacy rate was 77.97% in 2016.[282] According to Hootsuite, the literacy rate of males aged over 15 years was 84%, while for females was 74%, with the overall literacy rate of those over 15 years being 79%.[283] The proportion of women in wage employment was 34% while that of men was 66%. In effect, there are significant differences in Internet access and use between men and women. Internet users among women was 21% while Internet usage among men was 31%. Gender parity on Internet usage was 10%.[284]

Significantly, mobile ownership among men in Kenya is at 92%, while ownership among women stands at 82%. Gender parity is at 10%.[285] The After Access research showed that 24% of women mobile users had a smartphone, compared to 31% of men. Only 22% of women, and 32% of men were Internet users. Also, the percentage of mobile ownership stood at 92% for men and 83% for women.[286]

In yet another research by GSMA, women's level of mobile ownership was found to be lower than that of men. Based on a total population over 18 years, 82% of women had access to mobile phones compared to 86% of men.[287] For many Internet users, mobile is their sole or primary means of accessing the Internet. From the GSMA report, 75% of women and 63% of men who used the Internet in the past three months at the time of the survey, did so only on a mobile.

The Table 7 below shows patterns of social media usage aggregated by gender. Wider disparities exist and men are more active in social media, reading news, following local politics,

281 KNBS Women Men Kenya facts and Figures. https://www.knbs.or.ke/download/women-men-kenya-facts-figures-2017/

282 The World Bank, 2016, Adult Literacy Rate, %, % Adults, Available from: https://tcdata360.worldbank.org/indicators/entrp.lit?country=KEN&indicator=3421&viz=line_chart&years=2012,2016 [25 October 2019]

283 Hootsuite and We Are Social, 2019, Digital 2019 Kenya (January 2019) v01, Available from: https://www.slideshare.net/DataReportal/digital-2019-kenya-january-2019-v01 [13 September 2019]

284 After Access, Reports - After Access, Available from: https://afteraccess.net/reports [3 October 2019]

285 Research ICT Africa, Understanding the Gender Gap in the Global South: https://afteraccess.net/wp-content/uploads/2018-After-Access-Understanding-the-gender-gap-in-the-Global-South.pdf

286 After Access, The Inside Internet Story of Africa, Asia, and Latin America, Available from: https://afteraccess.net/wp-content/uploads/After-Access-Website-layout-r1.pdf [22 October 2019]

287 GSMA, 2019, The Mobile Gender Gap: Africa, Available from: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/07/The-Mobile-Gender-Gap-in-Africa.pdf [25 October 2019]

and government projects and policies. Women are more active in making social connections, chatting and staying in contact with friends and family.

Table 7. Patterns of social media usage in Kenya aggregated by gender

Activity	Male	Female
Reading News	83%	75%
Chatting	96%	96%
Making calls	60%	65%
Playing games	46%	45%
Staying in contact with friends and family	92%	92%
Making professional and business contacts	52%	49%
To market products and services	32%	29%
Follow government projects and updates on policies	59%	50%
Make friends	94%	88%
Follow local politicians	62%	50%
Get and share opinions	82%	87%
Share videos, pictures and music	81%	87%
Share content	45%	37%
Look for educational content	74%	67%

Source. Research ICT Africa 2017288

This data shows that there is an increase of Internet usage by women through blogs and videos. In 2017, the Bloggers Association of Kenya reported an increase of women-owned blogs and vlogs submitted for nomination. For the first time, women were awarded the accolade of 8 categories in the 2017 Annual Bloggers Awards.[289]

There are also significant differences in the perceptions of barriers to Internet access and use between men and women. The table 8 (below) shows the reasons given for not using the Internet.

Table 8. Barriers to Internet Access and Use in Kenya in 2017

Perceptions of barriers to Internet access and use	Male	Female
Don't know what the Internet is	15.9%	35.3%
Have no access to devices (computers and smartphones)	24.7%	18.9%
No Internet, Not useful	29.4%	23.5%
Do not know how to use it	13.6%	10.2%

288 Research ICT Africa, 2017, Internet use, Barriers and Strategies: Perceptions from Kenya, Nigeria, Rwanda and South Africa, Available from: https://www.researchictafrica.net/docs/RIA%202016%20Comparative%20FGD%20study_Final_Web%20version.pdf [25 September 2019]

289 Bloggers Association of Kenya, 2017, State of Internet in Kenya Report: https://www.ifree.co.ke/wp-content/uploads/2018/02/State-of-the-Internet-in-Kenya-report-2017.pdf [17 November 2019]

Perceptions of barriers to Internet access and use	Male	Female
Not available in my area/ no mobile coverage	2.8%	1.9%
Too expensive	4.6%	3.4%

Source: Research ICT Africa 2017290

A 2015 GSMA survey found that there was lack of awareness and locally relevant content, lack of digital literacy and skills, and affordability among top barriers for non-Internet users. Of those interviewed, 46% said they don't use the Internet because of lack of awareness and locally relevant content, 37% for lack of digital literacy and skills, 25% for affordability, 4% for lack of network coverage, 2% for security and trust barrier, and 22% for other reasons.[291]

However, there is no precise data on the proportion of adults in different age groups using the Internet, but Internet use by gender was at 31% for males, and 21% for females; while social media use by gender was 30% for males and 21% for females.[292]

THEME E
Local Content and Language

AE.1 How many Internet domains and servers are there within the country?

▶ ***Indicator:*** *Number of registered domains (including ccTLDs, gTLDs and IDNccTLDs) per thousand population, and trend where available*

The Kenya Network Information Center (KeNIC) estimates that domain registrations for ".ke" domains were 93,446 as of September 2019.[293] This number does not differentiate whether the domains are registered by Kenyans, or also by users from other countries. Data for gTLDs and

290 Research ICT Africa, 2017, Internet use, Barriers and Strategies: Perceptions from Kenya, Nigeria, Rwanda and South Africa, Available from: https://www.researchictafrica.net/docs/RIA%202016%20Comparative%20FGD%20study_Final_Web%20version.pdf [25 September 2019]

291 GSMA, 2015, Connected Society Consumer barriers to mobile Internet adoption in Africa, Available from: https://www.gsmaintelligence.com/research/?file=8170bf058e42cdb8c186c6c75fb2b30e&download [22 October 2019]

292 After Access, 2017, Let the people speak: using evidence from the Global South to reshape our digital future, Available From: https://afteraccess.net/wp-content/uploads/AfterAccess_IGF2017v2_1.pdf [17 October 2019]

293 KENIC, .ke Domain Statistics, Available from: https://www.kenic.or.ke/index.php/en/domain-statistics/ke-statistics [13 October 2019]

ccTLDs is not reliable. For example, Domain Name Stat puts all registered domains in Kenya at 68,261[294] with .com taking 60% of all domains at 40,652. However, this data is in complete contrast with .ke domains that stand at 93,446.

Table 9. Kenya Country domain registration trends, 2014 - 2018

Domain	Users	2014	2015	2016	2017	2018
ac.ke	Institutions of Higher Education	792	580	726	786	891
.co.ke	Companies	35,274	46,451	58,165	68,430	77,820
.go.ke	Government entities	314	290	363	414	502
.info.ke	Information/blogs	105	115	144	374	443
.me.ke	Personal websites and email	650	260	236	386	345
.mobi.ke	Mobile content	48	35	44	126	180
.ne.ke	Network devices	65	140	175	466	277
.or.ke	NGOs	1,190	1,485	1,860	1,981	1,976
.sc.ke	Lower and middle institutions of learning	95	665	833	1,027	1,212
.ke	Second level domain	-	-	-	-	2,098
Total		38,533	50,111	62,638	73,072	85,744

The World Economic Forum's Global Information Technology Report indicates that the number of secure web servers per million population is 7.80 as of 2016. Kenya experienced a year-on-year average growth rate of 32.92% for the time period 2012 to 2016.[295]

AE.4 Is there a substantial and growing volume of Internet content in diverse local and indigenous languages, including locally-generated content?

▶ ***Indicator:*** *Proportion of population whose principal language and script are available on leading online services*

For local content diversity, the country does not need to add new scripts for access. Kenyan languages use the Latin script[296] which is supported by all domain and online services. Kenyan websites use the Latin script. Therefore, users can access content in their language using the

294 Domain Name Stat, October 2019, Available from:https://domainnamestat.com/statistics/country/KE [25 October 2019]

295 The World Bank, 2016, Secure Internet servers/million pop., Available from: https://tcdata360.worldbank.org/indicators/entrp.inet.secure?country=KEN&indicator=3407&viz=line_chart&years=2012,2016 [25 October 2019]

296 Worldstandards, The world's scripts and alphabets:https://www.worldstandards.eu/alphabets/ , retrieved on 13/11/2019

Latin script. There is a small population of Arabic speakers, who can access the Arabic Script in registering domains from registries that support Arabic scripts.[297] However, the Kenyan .ke registry only accepts Latin script registrations.

Kenya has 68 local languages[298] with English and Kiswahili being the official languages.[299] Local languages are not so popular on the Internet considering that English, Swahili and Sheng (Swahili slang) dominate most conversations on online platforms. Community radios which target specific audiences and local communities speak in local languages, but most online platforms are in English, with a very few percentage in Kiswahili.

Government websites are used by the government to relay information to the citizens remotely and offer public services. Language is an important aspect of service delivery. There is no study that shows preference of Kenyans in the usage of language in written communications. A recent research by Research ICT Africa[300] shows that only 1.96 of the sampled population expressed that language was a barrier to Internet use.

Although Kenya has English and Kiswahili as the official languages, major government websites such as the judiciary.go.ke, ecitizen.go.ke, klrc.go.ke, parliament.go.ke, and president.go.ke are all in English.

297 ICANN, 8 September 2015, Linguistic Diversity in the Internet Root: The Case of the Arabic Script and Jawi, Available from: https://www.icann.org/news/blog/linguistic-diversity-in-the-Internet-root-the-case-of-the-arabic-script-and-jawi [13 October 2019]

298 Wikipedia, 30 October 2019, African linguistic maps: Uganda and Kenya, Available from: http://www.muturzikin.com/cartesafrique/17.htm [2 November 2019]

299 Kenya Law Reform Commission, Constitution of Kenya 7. National, official and other languages, Available from: http://www.klrc.go.ke/index.php/constitution-of-kenya/108-chapter-two-the-republic/173-7-national-official-and-other-languages [23 October 2019]

300 After Access, 2017, Let the people speak: using evidence from the Global South to reshape our digital future, Available From: https://afteraccess.net/wp-content/uploads/AfterAccess_IGF2017v2_1.pdf [17 October 2019]

5

THEME F
Capabilities / Competencies

AF.1 Do school and higher educational curricula include training in ICTs and media and information literacy, focused on effective and safe use, and are these curricula implemented in practice?

▶ ***Indicator:*** *Policy concerning school curricula, including media and information literacy, intercultural dialogue and training in ICT skills*

Digital literacy is one of the seven competencies outlined in the Basic Education Curriculum Framework 2017.[301] The policy broadly describes digital literacy as having the knowledge, skills and behaviours which are necessary to effectively and safely use a wide range of digital content and devices. The description also includes the ability to engage in online communications on different platforms, being aware of and adhering to ethical behaviour protocols, being aware of societal issues raised through digital media, and being able to search, evaluate and use digital information. Digital literacy is treated as a multidisciplinary course incorporated in geography, social science, languages and computer courses. It is also incorporated in most levels of learning; from middle level education to tertiary level of education.

Intercultural dialogues have played critical roles in promoting cultural diversity, social cohesion and tolerance in online platforms. The National Cohesion and Integration Commission's (NCIC) policy recognizes the role of education in fostering peace and cohesion.[302] The NCIC policy strategy therefore includes intercultural education in national and secondary education. It has also sought to promote cultural events and festivals targeting learning institutions. Education is needed to implement the constitution, which emphasized promotion of social cohesion and peace between communities. In 2012, the Commission trained 150 curriculum developers from the Kenya Institute of Curriculum Development (KICD) on how to infuse cohesion and integration issues in the education curriculum for primary and secondary schools.[303]

301 Ministry of Education, 2017, Basic Education Framework, Available from: http://www.education.go.ke/index.php/downloads/file/632-basic-education-framework [25 October 2019]

302 National Cohesion and Integration Commission, 2014, Amani Club Guidelines, Available from: https://cohesion.or.ke/index.php/resources/downloads?download=7:amani-club-guidelines [30 October 2019]

303 National Cohesion and Integration Commission, 2015, Policy strategy 2015-2020, Available from: https://www.cohesion.or.ke/index.php/resources/policies-and-regulations [30 October 2019]

Among the broad strategies in the revised ICT Policy 2016 is facilitation of ICT based delivery systems in education.[304] The policy provides that ICT is expected to be integrated seamlessly in teaching and learning across all levels of education with new methods of delivery and learner assessments. Under the basic education policy framework, ICT skills and training is offered to junior high school students to enable them to use technology in learning other subjects. In the senior high school levels, students who wish to continue pursuing computer studies go through the course with the aim of specializing in computer hardware and applications as a technical pathway.

To cater for learners with disabilities, the Kenya Institute of Special Education (KISE) was established as a semi-autonomous government agency under the Ministry of Education. KISE developed a sector policy for learners and trainees with disability to align education and training services for learners and trainees with disabilities with the relevant national policy frameworks.[305] The Policy includes ICT training for curriculum delivery and ICT training for students with disabilities. However, the policy also notes challenges in ICT human resources that has led to under deployment of teachers with competent ICT skills to special schools all over the country.

▶ ***Indicator:*** *Evidence of appropriate educational curricula at primary, secondary and tertiary levels*

Substantial ICT training in primary schools mostly exists in private schools. In 2013, the government introduced ICT in the delivery of curriculum, starting with the lower primary. Under the government led digital literacy program, over 75,000 teachers in public primary schools were trained in readiness for the project implementation.[306] However, the project did not succeed because of the challenges of poor connectivity to the electricity grid, lack of proper classroom facilities and insufficient skilled teachers. The Ministry of Education suspended issuance of tablets to class one pupils under the digital literacy programme, opting instead to build computer laboratories. Each of the 25,000 public primary schools were expected to get one computer laboratory.[307]

There is no aggregate data on the number of schools connected to the Internet, or the proportion of learners who have Internet in schools. Kenya had a total of 94,399 educational institutions in 2018. There were 11,399 secondary schools, 37,910 primary schools, 2,289 technical vocational institutions, and 63 universities. In the same period, 896 secondary schools were

304 Ministry of ICT, 2016, National ICT Policy, Available from: http://icta.go.ke/pdf/National-ICT-Policy-20June2016.pdf [25 October 2019]

305 Ministry of Education, 2018, Sector Policy for Learners and Trainees with Disabilities: http://www.education.go.ke/index.php/downloads/file/510-sector-policy-for-learners-and-trainees-with-disabilities

306 Ministry of ICT, Digital Literacy Programme(DLP), Available from: www.ict.go.ke/digital-literacy-programmedlp/ [15 September 2019]

307 Ouma Wanzala, 25 February 2019, Daily Nation, Education ministry abandons Uhuru's laptop project, Available from: https://www.nation.co.ke/news/education/Ministry-abandons-laptop-project/2643604-4997644-10p9jfgz/index.html [3 September 2019]

connected to broadband using satellites.[308] There have been several initiatives to connect schools to the Internet. The Kenya Education Network in 2014, connected 240 schools in Nairobi through the School Connectivity Initiative, with mixed results.[309]

In 2018, the Communications Authority announced that it had provided broadband connectivity through the USF to 896 public secondary schools spread across 47 counties, with Internet connection speeds of 5 Mbps downlink and 1 Mbps upload. In the project, the CA targeted to connect all the 8,500 public secondary schools to high-speed broadband connectivity over a five-year period in order to enhance the delivery of educational content and quality learning using ICT platforms.[310] The Craft Silicon Foundation's Mobile Lab equipped with 34 computers and supporting technology, converted a bus into a mobile and solar-powered ICT classroom. The bus has been used by over 6,000 young people in Nairobi[311]

AF.3 What proportion of the population and the workforce is skilled in the use of ICTs?

▶ ***Indicator:*** *Proportion of Internet users with particular Internet skills, by skill level (basic, intermediate, advanced), aggregate and disaggregated*

In a 2011 survey conducted by the International Data Corporation (IDC),[312] 82% of respondents indicated that they were confident in their skills to create a blog or web page. However, 10% were neutral, 8% were not confident, and 2% did not know. On using an Internet search engine, 79% said they were confident, 12% were neutral, 8% were not confident, and 1% said they don't know. On using email to communicate with others, 68% said they were confident, 12% were not confident, 12% were neutral, and 8% did not know. On finding, downloading and installing software, 49% said they were confident, 26% were not confident, 16% were neutral, and 9% did not know. On posting messages to chat rooms, newsgroups or online discussions, 29% said they were confident, 39% were not confident, 16% were neutral, and 16% did not know.

The National ICT Masterplan notes that the country does not have sufficient local high end skills, resulting in the local industry importing such skills.[313] These high-end skills set are found in ICT

308 Kenya National Bureau of Statistics, 2019, Kenya Economic Survey 2019, Available from: https://africaopendata.org/dataset/kenya-economic-survey-2019/resource/5b9357a4-6227-4fbf-9e10-ae7043a41ce3 [7 September 2019]

309 KENET, Schools Connectivity Initiative, Available from: https://schools.kenet.or.ke [15 September 2019]

310 Communications Authority, 3 June 2018, CA Connects 896 Public Schools To High-speed Internet, Available from: https://ca.go.ke/ca-connects-896-public-schools-to-high-speed-Internet/ [15 September 2019]

311 ITU, 30 August 2016, Craft Silicon Foundation's Mobile Lab Teaches Digital Skills to Youth in Kenya, Available from: http://digitalinclusionnewslog.itu.int/2016/08/30/craft-silicon-foundations-mobile-lab-teaches-digital-skills-to-youth-in-kenya/ [7 September 2019]

312 IDC, 2011, Kenya ICT Board ICT Monitoring and Evaluation Indicators Study, Available from: http://icta.go.ke/pdf/Julisha%20Final%20Report%201.pdf [12 November 2019]

313 National ICT Masterplan http://icta.go.ke/pdf/THE%20NATIONAL%20ICT%20MASTERPLAN%202017.pdf

professionals such as ICT projects managers, network engineers, network administrators, system administrators, application developers, and information system analysts who manage complex system design, development, and integration.

Small and medium enterprise (SME) sector constitutes the largest proportion of businesses in Kenya. A recent study showed that ICT technology most widely used by the small and informal businesses in Kenya was the mobile phone, with 71.6% of respondents using their private mobile phones for business, and only 3.7% having a dedicated business phone.[314] Further, the use of computers and the Internet was found to be limited, at 1.4% and 3.7% respectively. There is no data to show the proportion of skill level in the workplace.

A 2017 UNESCO study also found that the number of students not achieving minimum proficiency levels in mathematics in sub-Saharan Africa for school going children in primary and lower secondary schools was 193 million representing 84% of all students, against a global average of 56%.[315] In sub-Saharan Africa, only one in ten students reach a minimum level of proficiency in reading and mathematics.[316] Globally, six out of ten children and adolescents are not achieving minimum proficiency levels in reading and mathematics.

The UNESCO dataset on distribution of tertiary graduates in Kenya by field of study in 2016 shows that 5.97% of graduates being from Social Sciences, Journalism and Information programmes; 7% from Natural Sciences, Mathematics and Statistics programmes; 5.26% from Information and Communication Technologies programmes; 4.22% from Engineering, Manufacturing and construction programmes; 2.75% from Agriculture, Forestry, Fisheries and Veterinary programmes; 16.48% from Science, Technology, Engineering, Mathematics (STEM) programmes; and 82.03% from Programmes other than STEM. The percentage of males graduating with STEM subjects was 20.84% and females 11.19%. The percentage of males graduating with ICT courses was 6.71% and females 3.50%.[317] The report shows the total graduates in 2016 as 217,329 of which 98,301 were female, and the rest were male. Female graduates from Information and Technologies programmes in tertiary education were 30.1 percent; and 30.73 percent from Science, Technology, Engineering and Mathematics programmes.

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314 State of ICT in Africa https://researchictafrica.net/wp/wp-content/uploads/2019/06/After-Access_The-state-of-ICT-in-Kenya.pdf

315 UNESCO, 21 September 2017, More Than One-Half of Children and Adolescents Are Not Learning Worldwide, Available from: http://uis.unesco.org/sites/default/files/documents/fs46-more-than-half-children-not-learning-en-2017.pdf [17 October 2019]

316 UNESCO, 2019, Meeting commitments, are countries on track to achieve SDG4, Available from: http://uis.unesco.org/sites/default/files/documents/meeting-commitments-are-countries-on-track-achieve-sdg4.pdf [17 October 2019]

317 UNESCO, 2019, Education: Distribution of tertiary graduates by field of study, Available from: http://data.uis.unesco.org/index.aspx?queryid=163 [2 November 2019]

5

Policy Recommendations for Various Stakeholders

Government

- Invest in regular evidence-based research for decision-making and avail the research data for public consumption. Government agencies should work with research methodologies that are verifiable and can be interrogated by the public.
- Carry out regular studies on accessibility to provide for time comparison, and insights for policy intervention. Specifically, access gap studies with aggregated statistics on gender and location should be carried out on a regular basis.
- Be more proactive, through incentives and regulations, to promote competition in the provision of Internet services; last mile connectivity and Internet Exchange Points (IXPs). The entry barriers to Internet-based enterprises should be lowered through tax incentives and construction of publicly shared infrastructure such as telecommunication masts and ducts. This would lead to better quality of service and affordable prices.
- Implement and periodically evaluate policies on access to information, cybersecurity and universal access.
- Offer online services in both English, Swahili and in local languages to serve those who cannot read and communicate in both english and Swahili. For the population that can neither read nor write, government website content should also include videos and infographics.
- Lower taxes for mobile phones to increase affordability among the citizens.

Academia

- Identify their needs and work on innovations that are tailored towards the creation of relevant local content that can drive demand for Internet access among the rural communities.
- Develop courses on digital literacy, for use in primary schools to the university level.

Civil Society

- Advocate and work with other stakeholders to develop policies that promote Internet access.
- Consider providing Internet and its associated services, for organizations that provide critical cheaper services to communities, such as provision of water and affordable energy alternatives for cooking.

Private Sector

- Invest in infrastructure in areas that are still unconnected or are not profitable as part of Corporate Social Responsibility (CSR).
- Offer free Internet services in exchange for other valuables such as advertisements and surveys. A good example of such models is Surf Kenya that is available in Western, Central and Coastal parts of Kenya.[318]

318 Surf Kenya, 2017, Home | Surf Kenya, Available from: https://www.surf.co.ke/ [22 September 2019]

M

Multistakeholder participation

6

CATEGORY M
MULTI-STAKEHOLDER PARTICIPATION

6

THEME A
Policy, Legal and Regulatory Framework

MA.1 Is there an overall policy, legal and regulatory framework for Internet development and policymaking which is consistent with international norms?

▶ ***Indicator:*** *Existence of an overall framework consistent with relevant international norms*

Article 2 of Kenya's constitution[319] affirms the supremacy of the constitution and states that it: '*is the supreme law of the Republic and binds all persons and all State organs at both levels of government*'. Further, in subsection 6, it provides for ratification of all laws stating that *"any treaty or convention ratified by Kenya shall form part of the law of Kenya under this constitution."* This means that Kenya is now a monist state, as international law automatically becomes part of the national law without a need for domestication. Accordingly, the country aligns with the international norms provided for in Article 2 (5) which provides that the *"general rules of international law shall form part of the law of Kenya."*

Kenya is therefore bound by the provisions on freedom of expression in regional and international instruments. Such provisions include: Article 9 of the African Charter on Human and People's Rights,[320] Article 19 of the Universal Declaration of Human Rights,[321] and Article 19 of the International Convention on Civil and Political Rights.[322] As such, any person whose rights are violated or is threatened in regard to their activities online has a basis to seek redress in a court of law for the particular breach or the protection of the law. The African Commission on Human and Peoples Rights [323] has principles on freedom of expression to guide African states on implementation of the freedom of expression.

In addition, the country's Constitution has a Bill of Rights considered progressive, and which applies and binds all citizens and State organs. It provides the broad structure that promotes freedom of expression. Article 33[324] of the constitution provides that: "every person has the right

319 The Constitution of Kenya. http://kenyalaw.org/kl/index.php?id=398
320 The African Charter on Human and People's Rights http://www.achpr.org/files/instruments/achpr/banjul_charter.pdf
321 Universal Declaration on Human Rights. http://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf
322 International Convention on Civil and Political Rights http://www.ohchr.org/Documents/ProfessionalInterest/ccpr.pdf
323 African Commission on Human and Peoples Rights. http://www.achpr.org/
324 Ibid.

to freedom of expression, which includes - freedom to seek, receive or impart information or ideas; freedom of artistic creativity; and academic freedom and freedom of scientific research."

Further, the Bill of Rights provides for several fundamental rights and freedoms. They include the rights to privacy; access to information; to property; and to consumer protection. Others are the right to fair administrative action; access to justice and fair hearing; freedom of conscience, religion and opinion; freedom of expression; and freedom of the media.

Moreover, Article 21[325] of the Constitution requires the State and every State organ to observe, respect, protect and fulfill the rights and fundamental freedoms in the Bill of Rights. The State is also required to enact and implement legislation to fulfill its international obligations in respect of human rights and fundamental freedoms. Article 22 further addresses the question of legal standing in court and grants every person the right to institute court proceedings if a right or fundamental freedom in the Bill of Rights has been denied, violated or infringed, or is threatened.[326]

▶ ***Indicator:*** *Existence of legal and regulatory frameworks to enable e-commerce, digital signatures, cybersecurity, data protection, and consumer protection*

Kenya's Computer Misuse and Cybercrimes Act 2018 assented to on May 30th 2018 aims to provide a legal framework for tackling cybercrime, including providing for investigation and prosecutorial procedures.[327] However, the Act contains some controversial provisions such as the reintroduction of criminal defamation, and offences relating to fake news and false publications that in effect limit freedom of expression. Accordingly, its full implementation was suspended after the Bloggers Association of Kenya (BAKE) obtained a conservatory order that suspended the entry into force of 26 sections of the Act.[328] BAKE challenged the law for contravening constitutional provisions on freedom of opinion, freedom of expression, freedom of the media, freedom and security of the person, right to privacy, right to property and the right to a fair hearing.[329] Article 19 Eastern Africa supported BAKE's position and described the controversial provisions as "extremely vague and ambiguous" and if sanctioned would allow for gagging of legitimate expression online.[330] However, the case was dismissed on February 19, 2020,

325 The Constitution of Kenya. http://kenyalaw.org/kl/index.php?id=398

326 KHRC. *The ICT legislative and policy environment in Kenya.* 2014. https://tinyurl.com/qmwersy

327 Kenya Gazette Supplement. *The Computer Misuse and Cybercrimes Act, 2018.* http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/ComputerMisuseandCybercrimesActNo5of2018.pdf

328 Africa Legal Network (ALN). *Legal Alert | Kenya | High Court Suspends the Computer Misuse and Cybercrimes Act, 2018. https://www.africalegalnetwork.com/legal-alert-kenya-high-court-suspends-computer-misuse-cybercrimes-act-2018/*

329 Sections of Kenya's Computer Misuse and Cybercrimes Act, 2018 Temporarily Suspended. https://cipesa.org/2018/05/sections-of-kenyas-computer-misuse-and-cybercrimes-act-2018-temporarily-suspended/

330 Article 19. *Kenya: Suspension of Cybercrimes Act provisions a welcome step to protect free expression.* June 05, 2018. https://www.article19.org/resources/kenya-suspension-of-cybercrimes-act-provisions-a-welcome-step-to-protect-free-expression/

and the petition termed as unwarranted.[331] This law was declared valid in its entirety. The law affects bloggers, journalists and Internet users, and provides for hefty penalties and long prison terms for cyber bullying and propagation of fake news.

Kenya's Data Protection Act, 2019 became law on November 20, 2019 upon being assented by Kenya's President.[332] The Act gives effect to article 31 of Kenya's Constitution which is on privacy. This Article provides that:

> Every person has the right to privacy, which includes the right not to have—
>
> **1.** Their person, home of property searched;
>
> **2.** Their possessions seized;
>
> **3.** Information relating to their family or private affairs unnecessarily required or revealed; or,
>
> **4.** The privacy of their communications infringed.

The Data Protection Act provides for the establishment of the office of the Data Commissioner, and lays down the rules for the protection of personal data by both public and private entities. However, the Act has been challenged in court by a renowned Activist, who claims that the Act was enacted through unconstitutional exercise as the Senate was blocked from inputting into the Act when it was a Bill. Further, that the Act is invalid as it contains unconstitutional provisions.[333]

However, there are still a number of laws that protect the right to privacy of personal data. These include the Official Secrets Act; Children's Act; HIV and AIDS Prevention and Control Act; Witness Protection Act; and the Banking Act. Others are the Credit Reference Bureau Regulations and Capital Markets Act; Access to Information Act; and the Public Archives and Documentation Service Act; the Kenya Information and Communications Act (KICA); Private Security Regulation Act; and the Elections (Technology) Regulations, 2017.

Together with professional ethics and pronouncements of the courts, these laws regulate aspects of data processing in specific cases. However, they do not comprehensively cover all instances of data processing. For instance, educational institutions collect personal data of their students. These institutions are not beholden to protect the data from unauthorized access and use. In addition, online platforms that people use to access Internet services for example Facebook and Twitter are not subject to data protection licence conditions under the Kenya Information and Communication Act (KICA).

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331 Maureen Kaka. *Court dismisses bloggers' cybercrime law case.* February 20, 2020. Daily Nation. https://www.nation.co.ke/news/Court-dismisses-bloggers-case-challenging-cybercrime-law/1056-5462136-51snt7/index.html

332 Business Daily. *Uhuru signs the Data Protection Bill into law.* November 8, 2019. https://www.businessdailyafrica.com/releases/Uhuru-signs-Data-Protection-Bill-into-law/1941082-5341658-njto1jz/index.html

333 Petition 454 of 219.

Ecommerce and Digital signatures

Kenyans are able to conduct bank transactions online, and shop online. They can also trade or make payments using mobile money. Government services are accessible online and Kenyans can access government services through the ecitizen portal.[334] In regard to digital signatures, the Kenya Information and Communication Act (KICA)[335] section 83 (O) (3) defines what constitutes an electronic signature. Further, section 83 (P) provides what constitutes the legal recognition of electronic signatures.

THEME B
National Internet Governance

MB.2 Does the government actively involve other stakeholder groups in developing national Internet policies and legislation?

▶ ***Indicator:*** *Existence of arrangements for multistakeholder consultation and involvement in national policymaking institutions and processes concerned with the evolution and use of the Internet*

Kenya has a multistakeholder model of policy making enshrined in its Constitution[336] entrenched in Article 10 which requires the involvement of citizens in policy making processes, including whenever any State Organ, State Officers or public officers applies or interprets the Constitution; enacts, applies or interprets any law; or makes or implements public policy decisions. This requirement is considered as one of the national values and principles of governance. Others include: Patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of the people. This article therefore places a constitutional requirement of public participation in any public policy making process.

Where Internet policy is concerned, the National Communication Secretariat (NCS)[337] in the Ministry of ICT, and the Communications Authority (CA)[338] spearhead policy making processes.

334 E-citizen: Services and information. https://www.ecitizen.go.ke/ecitizen-services.html

335 Kenya Information and Communication Act (KICA). https://kfcb.co.ke/wp-content/uploads/2016/07/Kenya_Information_and_Communications_Act.pdf

336 The Constitution of Kenya 2010

337 The National Communications Authority. https://ncs.go.ke/index.php/about-us

338 Communications Authority of Kenya. https://ca.go.ke/

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The NCS formulates policy papers, session papers and laws on ICT, while CA is responsible for facilitating the development of the information and communications sectors mostly through formulation of legislation.

▶ ***Indicator:*** *Policy and legal arrangements requiring public consultation and legal and practical arrangements for online consultation processes*

CA usually calls for public participation even though sometimes the timeframe provided within which stakeholders should give input is often short and unrealistic for any meaningful input. The NCS also attempts to engage the public, with a key example being during the ICT policy review of 2016 where different industry stakeholders were involved in the review of this policy.

Both institutions place public consultation notices on their websites, in newspapers and on television. These are also sometimes followed by face to face meetings with stakeholders where issues are raised and discussed, including those considered controversial. However, even with these consultations, there are times when input made by stakeholder groups is never reflected in final outcome documents.

Other institutions charged with Internet policy development are the National Assembly and the Senate ICT Committees. Their work falls under the legislative role of Parliament, which is derived from the people.[339] The two ICT Committees in line with the Parliamentary Standing Orders, usually call for public engagement through the newspapers, which are followed by public hearings after stakeholders have sent in their memos to the Clerks of the relevant houses of Parliament. This participation of citizens in law making processes is a constitutional requirement grounded in Article 118 (1) (b) which requires Parliament to "facilitate public participation and involvement in the legislative and other business of parliament and its committees."[340] Additionally, the National Assembly Standing Order 127 (3)[341] requires the "departmental committee to which a Bill is committed to facilitate public participation and take into account the views and recommendations of the public when the committee makes its report to the house."

An example is where both the National Assembly and the Senate proposed legislation separately but called for public participation is the Data Protection Bill 2019. Both committees gazetted their public consultation announcements. The public participation engagements were set to be carried out across different parts of Kenya in line with the Standing Orders.[342]

339 The Constitution of Kenya: Role of Parliament. http://www.klrc.go.ke/index.php/constitution-of-kenya/122-chapter-eight-the-legislature/part-1-establishment-and-role-of-parliament/262-94-role-of-parliament

340 Article 118 of Kenya's Constitution on Public Access and Participation. http://www.kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=Const2010

341 Standing Orders of the National Assembly. *Order 127 on Committal of Bills to Committees and public participation* http://www.parliament.go.ke/sites/default/files/2017-05/Standing_Orders_National_Assembly.pdf

342 Parliament sets public participation date for data protection bill 2019. https://techweez.com/tag/national-assembly/

Other proposed draft bills by Parliament have also been made available through online channels such as government websites. For example, the Kenya Information and Communication (Amendment) Bill 2019 (No. 61 of 2019 and No. 20 of 2019) was posted on the National Assembly website and stakeholders urged to send in a memorandum.[343]

The Communications and Multimedia Appeals Tribunal established under the Kenya Information and Communications (Amendment) Act of 2013 has been reviewing its mandate to adjudicate disputes in the entire communications and multimedia sector. The Tribunal also put out a call for recommendations on the Judiciary website.[344]

Nevertheless, it is not always easy for the public to access bills tabled in Parliament[345] or even in Newspapers especially if they cannot afford to purchase them on a daily basis, or have Internet access. Parliamentary notices in newspapers are seen by only about 2% of the Kenyan population.[346] The notices are not usually placed on radio stations, despite the fact that they are accessed by 80% of Kenyans.[347] In addition, there are times when the notice periods given for input by the public are very short. Further, as a result of security concerns, public access to Parliament buildings is highly controlled.

Given the circumstances, it is difficult to monitor bills, including changes made in real time at different stages of the legislative process. The current process only allows for tracking of the bills and not the substantive content. It is worth noting that the National Assembly has published two bills on public participation. They are Public Participation bill (No.2) (National Assembly Bill No, 71 of 2019) which seeks to give effect to Article 10 of Kenya's Constitution, through the provision of a general framework for effective participation.

▶ ***Indicator:*** *Numbers of non-governmental stakeholders actively participating, by stakeholder group, disaggregated by sex*

Different stakeholders drawn from the business, government, civil society, academia and others participate in ICT policy consultations. Usually they are motivated by different interests. Groups such as the Kenya ICT Action Network (KICTANet), Kenya Private Sector Alliance (KEPSA), the regulator the Communications Authority (CA) are active in different ICT public participation processes. Also, there is a lack of disaggregated data on stakeholders including the number of non-governmental stakeholder groupings that take part in consultations.

343 Kenya Information and communication Amendment bill 2019.http://parliament.go.ke/sites/default/files/2019-10/Kenya%20Information%20and%20Communication%20%28Amendment%29%20Bill%2C%202019-No.2_compressed.pdf

344 Communications and Muilti-Media Tribunals.https://www.judiciary.go.ke/communication-and-multimedia-appeals-tribunal/#1535537953409-7184729a-b

345 Open Government Partnerships. *Enhance Transparency in the Legislative Process (KE0012).https://www.opengovpartnership.org/members/kenya/commitments/KE0012/*

346 Ibid.

347 ibid.

MB.3 Is there a national Internet Governance Forum and/or other multistakeholder forum open to all stakeholders, with active participation from diverse stakeholder groups?

▶ ***Indicator:*** *Existence of national IGF and/or other multistakeholder forum concerned with Internet governance*

The social, economic and political environment has an impact on Internet governance engagement in Kenya. The ICT sector continues to play an increasingly important role in the economy of the country. It has high mobile penetration rate of above 100%[348] and is ranked highest in the East Africa region.

Kenya was among the first countries in Africa to host a national Internet Governance Forum (IGF). The Kenya IGF (KIGF), now in its 11th year, has been hailed as one of the continent's success stories. The Kenya ICT Action Network (KICTANet)[349] with the support of industry stakeholders[350] has convened the event since 2008. In 2008, Kenya with the support of the Geneva based Secretariat of the Internet Governance Forum hosted the first ever national Internet Governance Forum in Africa. The hosting was grounded on the outcomes of the World Summit on the Information Society's (WSIS) Declaration of principles on International and regional cooperation whose Article 62 states that:

> Regional integration contributes to the development of the global Information Society and makes strong cooperation within and among regions indispensable. Regional dialogue should contribute to national capacity building and to the alignment of national strategies with the goals of this Declaration of Principles in a compatible way, while respecting national and regional particularities. In this context, we welcome and encourage the international community to support the ICT-related measures of such initiatives.[351]

In addition, the Tunis Agenda for the Information Society[352] Articles 29-37 call for an Internet governance that is multistakeholder in nature. Article 31 states:

> We recognize that Internet governance, carried out according to the Geneva principles, is an essential element for a people-centred, inclusive, development-oriented

348 Communications Authority of Kenya. *SECOND QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2019/2020 (OCTOBER-DECEMBER 2019). https://ca.go.ke/wp-content/uploads/2020/03/Sector-Statistics-Report-Q2-2019-2020-1.pdf*

349 The Network aims to act as a catalyst for reform in the ICT sector in support of the national aim of ICT-enabled growth and development.

350 Githaiga, G. and Victor Kapiyo. 2017. *Pioneering Internet Governance in Africa* in GIWatch 2017 Edition, Kenya Chapter. https://www.giswatch.org/sites/default/files/giswatch17_web.pdf

351 WSIS Declaration of Principles. http://www.itu.int/net/wsis/docs/geneva/official/dop.html

352 WSIS 2003-2005 *Tunis Agenda for the Information Society. https://www.itu.int/net/wsis/docs2/tunis/off/6rev1.html*

> and non-discriminatory Information Society. Furthermore, we commit ourselves to the stability and security of the Internet as a global facility and to ensuring the requisite legitimacy of its governance, based on the full participation of all stakeholders, from both developed and developing countries, within their respective roles and responsibilities.

KICTANet continues to convene the KIGF, with the support of stakeholders and partners drawn from both state and non-state actors. The hosting of the KIGF is multistakeholder in nature in terms of choice of topics and their discussion, participants, and resources contribution.[353] KICTANet has also hosted two editions of the sub-regional East Africa IGF, and the 2012 Africa IGF. Further, KICTANet was a key stakeholder member in organising and hosting the global IGF held in 2011 in Nairobi.[354]

KIGF is recognized as a National and Regional Initiative (NRIs) under the IGF global secretariat. Its outcomes feed into the global level IGF. Objectives of KIGF include:[355] to bring together local stakeholders in open and inclusive dialogue; create opportunities to share best practices and experiences; identify emerging issues and bring them to the attention of the relevant bodies and the general public; and, contribute to capacity building for Internet governance. The forum is held in an informal setting, free from binding negotiations and brings together diverse stakeholders from government, private sector, technical community, academia and civil society to discuss Internet governance issues on an equal footing through an open and inclusive process.

In convening the KIGF, KICTANet adopts the global practice of having in place a multistakeholder Advisory Group (MAG), which is tasked with the responsibility of steering the forum. The MAG is diverse in nature and representative of diverse stakeholder groups. The topics that form into the discussions of the forum are crowd sourced from a variety of platforms including the KICTANet mailing list, skunkworks technical list and the security mailing lists. The conversations are also held on KICTANet's social media handles including Twitter and Facebook to enhance participation. The MAG then groups the topics into broad themes and again these are subjected to voting by the stakeholders. The topics that carry the day then form the four main topics of discussion during the face to face convening.[356]

Events such as the KIGF continue to play a crucial role in increasing regional participation at the global IGF. The multistakeholder model adopted in convening the KIGF continues to be improved with every year. Multistakeholderism continues to be reflected in the selection of topics to be discussed, as well as in funding with businesses, telcos, development partners and the regulator supporting the KIGF in one form or another. Support has included resources as

353 KICTANet's experience in KIGF convening over the years.

354 Githaiga, G. and Victor Kapiyo. 2017. *Pioneering Internet Governance in Africa* in GIWatch 2017 Edition, Kenya Chapter. https://www.giswatch.org/sites/default/files/giswatch17_web.pdf

355 11TH Edition Kenya Internet Governance Forum. https://www.kictanet.or.ke/?page_id=40115

356 Drawn from KICTANet's experience of convening the KIGF.

funds, connectivity, airtime, and so on. The same is also true of other ICT processes, although there have been instances where some stakeholders have been seen to wield more control than others. Nonetheless, this multistakeholder model in ICT policy making, if properly implemented, remains a powerful and useful model for public consultation. Increasingly, the various stakeholder groups are getting more organized and are capable of advancing convincing policy positions.

▶ ***Indicator:*** *Participation data for national IGF or other fora, aggregate and disaggregated by sex and stakeholder group, with particular attention to participation by selected groups (e.g. education ministries, SMEs, NGOs concerned with children, trades unions), and including arrangements for remote participation*

The Kenya Internet Governance Forum throughout its eleven editions has maintained and endeavoured to have a balanced multistakeholder process which has diverse groupings. Representation has included government officers drawn from different ministries and sectors who participate in high panel discussions and give keynote speeches, private sector representation from some of the largest telco companies, small medium enterprises, civil society and youth.[357]

Since 2017, KICTANet in collaboration with Watoto Watch Network,[358] has held three Youth IGFs as pre-events at the KIGF. This Youth IGF was inaugurated in 2017.[359] The youth IGF happens as a separate one day event, and the participants join the main Kenya IGF event where they are provided a slot in the programme to share the highlights of their discussions. The Youth IGF participants are students drawn from various schools and institutions and who contribute on different Internet governance issues affecting the youth.[360]

Each of the last three editions of the Kenya IGF has had in attendance more than 200 participants of different genders, age and stakeholder groups. They have been drawn from government, the private sector, academia, the media, civil society, technical community and individual users all who deliberate on existing and emerging Internet-related matters. The forum is also streamed live and available online on multiple social media channels. Remote participation has also allowed for online conversation through dedicated Twitter hashtag for the specific year. This hashtag has been the country's top trending topic for two consecutive days during the KIGF event. For instance in 2018, the event generated more than 2,000 tweets with estimated economic value was $18,321.1.[361]

357 Internet Governance Forum Reports. https://www.kictanet.or.ke/?page_id=40115

358 Watoto Watch is a Non-profit organization raising awareness on Child Online Protection by implementing informative and sensitization programs on Internet safety. http://watotowatchnetwork.org/

359 Watoto Watch Network Youth IGF https://watotowatchnetwork.org/tag/kenya-youth-igf/

360 Youth IGF 2017. https://kigf.or.ke/category/youth-igf/

361 11th edition Kenya IGF https://www.kictanet.or.ke/?page_id=40115

Moreover, KICTANet has managed to sustain multistakeholder representation and participation at national IGFs. However, more still needs to be done to have participation of different government ministries such as the Ministry of Education, SMEs, NGOs concerned with children, and trade unions. In addition, there is no disaggregated data of participants. Disaggregated data of participants from the different stakeholder groups can help in the evaluation and measurement of participation and will inform meaningful inclusion of various stakeholders in future engagements.

THEME C
International and Regional Internet Governance

MC.2 Do government and other stakeholders from the country actively participate in major international for a concerned with ICTs and the Internet?

▶ ***Indicator:*** *Number of government submissions to international fora concerned with ICTs and the Internet*

Kenya is a member of the International Telecommunication Union (ITU).[362] Accordingly, the country is active in the meetings of the three sectors of the ITU that is: the ITU radiocommunication sector (ITU-R) where Kenya is the current Chair of the group; the International Telecommunication Union - Telecommunication (ITU-T) standardization sector; and, the International Telecommunication Union-Development (ITU- D).

The ITU-R ensures the effective use of the spectrum through the management of the radio frequency spectrum and standards for radio communications systems. The ITU-T works towards the promotion of agreed standards for telecommunications equipment and systems. ITU-D creates policies, regulations, strategies for finance and comes up with training programs in developing countries.

Most members in these three sectors are drawn from governments. For Kenya, the only stakeholder who participates in these three meetings is Safaricom. Other stakeholders such as Airtel Networks and Silensec Africa Limited are listed but only attend the ITU-D meetings.[363] There is also the

362 List of ITU member states. https://www.itu.int/online/mm/scripts/gensel8

363 Kenya. https://www.itu.int/online/mm/scripts/gensel9?_ctryid=1000100574

African Advanced Level Telecommunications Institute from Nairobi, which is the only academia, listed in the universal research category.[364]

▶ ***Indicator:*** *Extent of involvement by government and other stakeholders in international standard-setting processes concerned with communications and the Internet*

Kenya also participates in the ITU Plenipotentiary Conference[365] which is the highest level meeting that takes place at the ITU every four years.[366] At the conference, the 193 members review the last four years and agree on issues that they think are important, and which the ITU should focus on. Further, membership drawn from 193 member states agree on the ITU's overall strategic plans and provide guidance and direction for the next four years. The conference takes place over a three-week period, with the first week dedicated to elections of the ITU leadership for the next four years, including the election of a new Secretary General. Kenya's delegation is usually headed by the Minister of ICT or the Director General of regulator the CA. With the exception of 2012 which took a multistakeholder delegation to the World Conference on International Telecommunications (WCIT), Kenya's delegation usually comprises mostly government officials drawn from the Ministry of ICT, the Communications Authority (CA), and a few members from the National Assembly.

In 2012, the delegation from Kenya to WCIT 2012 was multistakeholder in nature. It comprised representatives from industry, technical community, civil society, media, academia and government.[367] But since then, there was a change in leadership at the Ministry of ICT following a new government coming to power in 2013, whose approach to engagement has not been multistakeholder based. Since then, there have been hurdles for non-state actors to be accredited by the government to be part of the country delegations to treaty making ICT processes. This has been the case despite non-state actors petitioning the Ministers of ICT in 2014 and in 2018 seeking accreditation for participation. In 2014, the Minister of ICT in his response to the request for accreditation by non-state actors, indicated that the Kenya Delegation had enough members. This is despite the fact that ITU does not restrict the number of delegates from a county, and in fact, encourages Member States to "have a good gender balance and a range of stakeholders from the public and private sectors, and civil society".[368]

364 List with participants status. https://www.itu.int/online/mm/scripts/gensel9?_ctryid=1000100574

365 The Plenipotentiary Conference (or Plenipot) is an international treaty conference organised by the ITU every four years.

366 The ITU Plenipotentiary Conference consists of the representatives of the Member States of the Union https://www.itu.int/web/pp-18/en/page/1-about

367 *Fighting for Internet Freedom: Dubai and Beyond : Joint Hearing Before the* ...2013. Washington DC. https://tinyurl.com/vgd4etb

368 ITU. *Emerging Trends/ ICT4SDG/ITU Plenipotentiary Conference 2018*. October 29, 2018.https://news.itu.int/what-you-need-to-know-about-the-itu-plenipotentiary-conference-2018/ | ICT4SDG | I

On both occasions, the Ministry of ICT did not offer valid reasons for declining to accredit the non-state actors to its delegation. However, the non-state stakeholders felt that there is some level of intolerance of any different views or perspectives by state actors.[369] It is important to note that non-state actors through multistakeholder processes may at times have opposing viewpoints and recommendations that may be viewed as incompatible with what is agreed as an African Common position.[370] Non-state actors have on several occasions pushed for Kenya to remain committed to the public interest values such as freedom of expression and free flow of information on the Internet, as well as upholding human rights obligations. Nevertheless, the non-state actors have found their way to these meetings through their own means and as a result of accreditation from foreign governments. Notably, in both 2014 and in 2018 (Busan and Dubai), and once at the venue, these non-state actors were invited to participate in the country's deliberations, and on positions that Kenya took on different ICT topics.

The Kenyan government also sends a delegation to the global Internet Governance Forum every year. The delegation usually comprises representatives from the Ministry of ICT, members of staff and board members from the sector regulator, and members of the National Assembly ICT Committee. The CA has also sent representatives to attend the World Summit on the Information Society (WSIS) though there has been no consistency in attendance.

In terms of participants to this meeting, the disaggregated data is not available. Further, the list of participants to the ITU meetings is not made public as is only available to members who have an ITU TIES account.[371]

MC.3 Does the government and do other stakeholders participate actively in ICANN?

▶ ***Indicator:*** *Membership of and active participation in ICANN's Governmental Advisory Committee (GAC)*

The Government Advisory Committee (GAC) is an ICANN advisory committee, set up under the ICANN By-laws. Its task is to advise ICANN on Domain Name System (DNS) public policy concerns. Kenya participates in ICANN and is a member of the Government Advisory Committee (GAC).[372] Currently three members, that is two drawn from the Communications Authority (CA),

369 KICTANet's experience during the 2014 and 2018 Plenipots in Busan and Dubai respectively.

370 The African common position is based on the African countries coming together as the African block, and is based on political interests.

371 TIES (Telecommunication Information Exchange Service) is a set of networked information resources and services offered by ITU without any charge to ITU Members (Member States, Sector Members, Associates, and Academia) to support their participation in the activities of the Union.

372 About GAC. https://gac.icann.org/about/members

and one from the Ministry of ICT are designated as members.[373] Currently, it is not clear how actively the three members participate in the GAC meetings. Previously, Kenya was very active in GAC and was able to bid to host ICANN 37.[374] Kenya was active for a period spanning 10 to 13 years and contributed substantially to various policy documents and processes such as the Generic Top Level Domain (GTLD) guidebook to accountability.[375] Kenya was also active in supporting the Africa Union's dot. Africa (.africa) work." We were a force to be reckoned with" avers Alice Munyua.

In May 2016, ICANN established an African engagement office in Nairobi to support efforts of the global stakeholder engagement team in Africa, and promote capacity building in the domain name space in Africa.[376] In January 2017, GAC with the support of the Communications Authority (CA) conducted its first capacity building workshop in Kenya on *"Harnessing the Potential of the Africa GAC Members for better Participation in ICANN."* This was specifically for Africa GAC members.[377] Kenya's ICT Minister delivered the keynote address.

▶ ***Indicator:*** *Membership of and active participation in ICANN constituencies, working groups and other fora.*

Other than in GAC, Kenya is also represented in different ICANN constituencies. Several Kenyans are active in various constituencies and Working Groups at ICANN.[378] For Example Kenyans are present in the following groups:

1. Expedited Policy Development Process (EPDP) working group:[379] The EPDP role is to review the Temporary Registration Data Specification on gTLD. It then decides whether it should become an ICANN Consensus Policy as it is, or whether it should be revised in accordance with the GDPR and other relevant privacy and data protection laws and regulations.
2. The Security and Stability Advisory Committee (SSAC) Caucus[380] gives direction to the ICANN community and Board on the security and integrity concerns related to the allocation on the Internet naming and address systems.

373 About GAC Membership. https://gac.icann.org/about/members

374 ICANN meetings. https://archive.icann.org/en/meetings/nairobi2010/

375 Interview with Alice Munyua who was GAC's vice chair for two years. She was the founding Chair of the Public safety working group which she served for 3 years, and the Under-served regions working group for 3 year. The two groups are under GAC. November 20, 2019.

376 ICANN Launches African Engagement Office In Nairobi. https://www.icann.org/news/blog/icann-launches-african-engagement-office-in-nairobi

377 ICANN Holds the First Capacity Building Workshop for African GAC Members. https://www.icann.org/news/announcement-2017-01-13-en

378 Interview with Bob Ochieng ICANN, 8th October 2019

379 Initial Report of the Expedited Policy Development Process (EPDP) on the Temporary Specification for gTLD Registration Data Team. https://www.icann.org/public-comments/epdp-gtld-registration-data-specs-initial-2018-11-21-en

380 Security and Stability Advisory Committee (SSAC) Caucus. https://www.icann.org/groups/ssac

3. The Country Code Names Supporting Organisation (ccNSO) Council[381] which is the forum where country code Top Level Domain (ccTLD) managers come together and raise concerns from a global perspective on the topical issues of ccTLDs.
4. At-Large Advisory Committee (ALAC)[382] liaison to the ccNSO. ALAC is the place for individual Internet user's voices and concerns.
5. NextGEN selection committee,[383] where those selected to participate in this program are coached and receive travel support. They are mostly students from Continent countries where there is a specific ICANN meeting.
6. Kenya was also in the leadership of the Non Commercial Users Constituency (NCUC) for three years (2014-2016).[384] This is the maximum that a leader can serve in one position. NCUC's role in ICANN is to ensure that the voices of the non-commercial users are heard at ICANN.

Challenges

Multistakeholderism in ICT policy making seeks to bring together diverse groups such as the government, industry, technical experts and civil society – to engage in the design and implementation of policy standards. The concept underpinning this model is that all actors that make a significant contribution to the digital governance system should participate in a consensus decision representing a collection of agreed viewpoints rather than a single source of confirmation, and thus gain legitimacy. However, sometimes efforts to build a meaningfully inclusive multistakeholder approach are undermined by mistrust among stakeholders. This has seen instances where some stakeholders have been excluded in some policy making process, or their positions not being reflected in the final outcome documents.

Further, in instances where the ICT committees of the National Assembly and Senate, as well as the Communication Authority have called for public participation on laws, a low engagement of ordinary citizens has been witnessed. This is either due to lack of understanding on how ICT policy processes relate to them, or have missed the announcement calling for public participation mostly placed in daily newspapers.

Another challenge noted is that sometimes people have participated in these policy engagements, but feel that the processes lack seriousness as there is no criteria on how to participate, forms of redress and feedback mechanisms. Therefore, they appear to be exercises of ticking the box to fulfil a constitutional requirement.

381 Country Code Names Supporting Organisation (ccNSO) https://ccnso.icann.org/en
382 ALAC. https://atlarge.icann.org/alac
383 NextGen @ICANN. https://www.icann.org/public-responsibility-support/nextgen
384 Non Commercial Users Constituency. https://www.ncuc.org/

6

Policy Recommendations for Various Stakeholders

Government

- Enact public participation legislation and policy framework to guide the public participation process. The framework should provide for the avenues, thresholds, timelines and formats for citizen engagement while also ensuring access to draft bills, and reporting back structures and mechanisms.
- Create a Public Participation Authority to enforce public participation between agencies making decisions and the public and match public participation tools to objectives.
- Facilitate citizen engagement with Parliament and County Assemblies through alternative media, including radio and mobile phones.
- Adopt open-source platforms to enhance internal parliamentary and County Assembly communication and also facilitate information sharing with the public.
- Provide access to weekly Senate, National Assembly, County Assembly plenary and committee proceedings by leveraging on both traditional and new media.
- Promote multistakeholder participation by having an open-door policy on policy formulation process on Internet governance discussions at national and county levels.
- Encourage multistakeholder participation in policy making on ICT issues.
- Have multistakeholder delegations comprising the government, industry, technical experts and civil society to treaty making conferences.
- Leverage social media for expanded public engagement.
- Encourage counties to invest in ICTs.
- Support county governments possibly through USF to interpret policies in local dialects and conduct public participation.

Civil Society

- Conduct research and document data on all multistakeholder engagements to track participation, and monitor inclusion, diversity and stakeholder representation.
- Engage the national and county governments on ICT policy initiatives as well as find ways to collaborate or utilize the existing policy structures and processes to foster good governance.
- Hold the government accountable to transparent and open multistakeholder participation in Internet-related policy processes.

- Advocate for balanced and inclusive stakeholder representation at national, regional and international Internet governance forums.
- Foster more inclusive participation on Internet governance issues from under-represented groups such as women, persons with disabilities and marginalized communities.

Private Sector

- Collaborate with industry stakeholders in engaging the government on proposed legislation or proposing amendments on policies and laws, and initiating policies that allow for a conducive business environment.
- Train other stakeholders to understand and get appraised on existing policy concerns.

Technical Community

- Cultivate interest and participate in policy making processes together with other stakeholders.
- Advocate for an enabling environment to operate in, including for innovation and favourable work conditions.

Academia

- Conduct evidence-based research on emerging issues that touch on multistakeholderism.
- Provide evidence-based recommendations on how multistakeholderism can be strengthened.
- Disseminate research findings widely and on different platforms to ensure it reaches different stakeholders.
- Champion for multistakeholderism curriculum on development and design in learning systems.

Media

- Report and cover more news stories on Internet governance and the multistakeholder nature of Internet governance.
- Sensitize and promote awareness to citizens on Internet governance issues, in a timely fashion.
- Engage in national, regional and global forums to understand and build knowledge in the area of Internet governance.

Individual Users

- Cultivate interest, and endeavor to participate in awareness creation programs on Internet governance and the meaning of multistakeholderism.

X

Cross-cutting

7

CATEGORY X
CROSS-CUTTING INDICATORS

7

THEME A
Gender

XA.1 Are the interests and needs of women and girls explicitly included in national strategies and policies for Internet development, and effectively monitored?

▶ ***Indicator:*** *National strategies include explicit consideration of a) women's needs relating to the Internet and b) the potential of the Internet to support women's empowerment and gender equality*

The Internet has experienced significant growth in Kenya, a situation characterized by the early adoption of the Internet, and an enabling regulatory and policy environment. These have contributed to the evolution of a dynamic technology ecosystem supported by the government, private sector, civil society, and citizenry actors, and founded on a robust infrastructure.

There are various laws and policies in Kenya which broadly promote equity on the Internet among genders namely: Vision 2030, the Constitution, the National Gender and Equality Act (2011), the Data Protection Act (2019), the Digital Economy Blueprint (2019), the Kenya National ICT Master Plan 2014 - 2017, and the National Information & Communications Technology (ICT) Policy 2016.

The Vision 2030 blueprint was launched in 2030 as a means to accelerate Kenya's transformation into an industrialized country by 2030. It emphasizes the need for gender equity in the distribution of power and resources, improved livelihoods for vulnerable groups, and responsive, globally competitive youth.

Article 27 of the Constitution provides that all citizens are equal and entitled to freedom from discrimination. The National Gender and Equality Act (2011)[385] provides for the promotion of gender equality and freedom from discrimination, and additionally to "establish, consistent with data protection legislation, databases on issues relating to equality and freedom from discrimination for different affected interest groups and produce periodic reports or national, regional and international reporting on progress in the realization of equality and freedom from discrimination for these interest groups".[386]

385 The National Gender and Equality Act (http://extwprlegs1.fao.org/docs/pdf/ken128411.pdf)
386 ibid

The Kenya Digital Economy Blueprint[387] has as its mission: "a nation where every citizen, enterprise and organization has digital access and the capability to participate and thrive in the digital economy." The blueprint articulates five core areas of emphasis as follows: Digital Government; Digital Business; Infrastructure; Innovation-Driven Entrepreneurship and Digital Skills and Values.

Additionally, the government has more specifically articulated gender equity in the ICT sector in the National ICT Master Plan[388] and the National ICT Policy 2016.[389] The former includes the provision of equitable, non-discriminatory access to ICTS to women, youth and disadvantaged communities; and the promotion of Kenyan ICT companies through local procurement and export promotion.

The draft National ICT Policy 2016[390] is an updated version of policy developed a decade previously and has among its objectives the giving of "special attention to providing new learning and ICT access opportunities for women and youth, the disabled and disadvantaged, particularly disenfranchised and illiterate people, in order to address social inequities".[391]

To achieve the policy objectives, draft National ICT Policy 2016[392] called for the creation of opportunities and assisting various groups, including women, to acquire ICT skills. Additionally, it called for "engaging of women, youth and children, communities in underserved areas, and other disadvantaged groups, including people with disabilities, through e-inclusion and e-accessibility activities and programmes".

▶ ***Indicator:*** *Numbers of women and men in senior policymaking positions in government concerned with ICTs/Internet*

The number of women and men in senior policy making positions in government bodies concerned with ICTs and the Internet reflects global trends where the leadership and management in most organizations concerned with ICT policy in Kenya tends to be mostly male. As shown in the table below, the Communications Authority of Kenya has 13 members on the management team, 3 of whom are women. The 9-member Senate Committee on Information, Communication and Technology has 2 women and 7 men. However, there are policy making initiatives, such as the Kenya ICT Authority, where women make up the majority in the management team of five.

387 Digital Economy Blueprint (https://ca.go.ke/wp-content/uploads/2019/05/Kenyas-Digital-Economy-Blueprint.pdf)

388 National ICT Master Plan (http://icta.go.ke/national-ict-masterplan/)

389 National ICT Policy (http://icta.go.ke/national-ict-policy/)

390 National ICT Master Plan (http://icta.go.ke/national-ict-masterplan/)

391 Ndung'u, M.N., Lewis, C., & Mothobi, O. (2019). After access: The state of ICT in Kenya. Policy Paper No. 9, Series 5. Research ICT Africa (p. 37). https://researchictafrica.net/wp/wp-content/uploads/2019/06/After-Access_The-state-of-ICT-in-Kenya.pdf

392 ibid

Table 10. Ratio of Men to women in leadership/management roles at ICT-related entities in Kenya

Organization	Leadership	Men:Women ratio	Top leadership post held by a woman
Communications Authority of Kenya[393]	13	10:3	Acting Director-General
Senate Committee on Information, Communication and Technology	9	7:2	Vice chair
Kenya ICT Authority Board of Directors[394]	10	6:4	Chief Executive Officer
Kenya ICT Authority Management[395]	5	2:3	Chief Executive Officer
Konza Technopolis Development Authority Board of Directors[396]	9	7:2	Member
Konza Technopolis Development Authority Board Management[397]	11	6:5	Manager

▶ ***Indicators:*** *Extent of disaggregation of available data on ICT access and use by sex*

There are a variety of research studies and reports generated by academics, government, and civil society organizations concerning ICT use and access by gender in Kenya. However, a greater variety of studies would need to be done to gain a more widespread and consistent perspective.

A 2019 study[398] established that most non-Internet users (84%) were based in the rural areas, and a majority (58%) were female. The National ICT survey[399] indicated that the access to ICT equipment differed between women and men, with men having a higher proportion of their population having access to ICTs compared to the women. For men, 60.8% had access to mobile phones while 58.9% of women had access to mobile phones, a difference of 1.8 percentage points. The access to computers and to the Internet for both males and females in 2010 was each below 10% of the sampled population for each gender, with men having a marginally higher number compared to the women.

393 Communications Authority of Kenya - About us https://ca.go.ke/about-us/

394 Kenya ICT Authority - Board of Directors http://icta.go.ke/board-of-directors/

395 Kenya ICT Authority - Management http://icta.go.ke/management-team/

396 Board of Directors - Konza Technopolis http://konza.go.ke/board-of-directors/

397 Management - Konza Technopolis (https://www.konza.go.ke/management/)

398 Ndung'u, M.N., Lewis, C., & Mothobi, O. (2019). After access: The state of ICT in Kenya. Policy Paper No. 9, Series 5. Research ICT Africa

399 National ICT Survey 2010 http://ca.go.ke/wp-content/uploads/2018/02/National-ICT-Survey.pdf

In terms of averages, the two genders differ in the average use of mobile phones to call. During the seven days before the survey was conducted as shown in the table below.

Table 11. Kenya Mobile phone use in seven days prior to survey (2010)

	Use of mobile phone in last 12 months (%)	Number of times used	Length of use (Mins)	Cost (KSh)
Men	53.6	24.5	67.1	272.3
Women	51.4	17.5	42.0	173.8

Source: Communications Authority of Kenya, 2010

In terms of usage of computers within the previous 12 months before the study was conducted, the Communications Authority of Kenya (2010)[400] observed the following:

Table 12. Reported use of computers by gender in Kenya (2010)

		Places Computers are Used (%)						
	Had used a computer (%)	Own home	Friend's house	Work place	Cyber cafe	Community centre	Educational institution	Mobile phone
Men	9.5%	24.4	2.2	24.0	28.7	2.3	13.3	6.5
Women	7.3%	21.4	1.2	16.4	28.2	1.8	17.1	4.7

Source: Communications Authority

The data shows that the male respondents compared to the female respondents had greater access to computers and mobile phones, and to computers in the workplace. For both genders, more than a quarter of the women and men accessed computers in a cybercafe. A greater proportion of female respondents (17.1%) compared to the male respondents (13.3%) used computers in schools/educational settings.

More recently, a 2019 GSMA[401] report indicated that women in Kenya were 6% less likely to own a mobile phone compared to men. Further, there was a 29% difference in monthly expenditure on mobile services for men and women. The table below shows the continued disparities in ICT access between men and women.

400 National ICT Survey 2010 http://ca.go.ke/wp-content/uploads/2018/02/National-ICT-Survey.pdf

401 GSMA - The mobile economy sub-Saharan Africa 2019 https://www.gsma.com/r/mobileeconomy/sub-saharan-africa/

Table 13. ICT access and s gender statistics

	Women (%)	Men (%)
%age of adult population who own a mobile phone	82	86
%age of adult mobile Internet users	26	43
Awareness of mobile Internet among genders	62	78

Source: GSMA402

While the difference in mobile phone ownership between genders showed a 4% difference, the gap is larger with regards to gender access and awareness of mobile Internet. The GSMA[403] report indicated that just over a quarter of the women sampled used mobile Internet as compared to more than two fifths of men. Additionally, a greater proportion of men (78%) were aware of mobile Internet as compared to 62% of women.

A study of mobile telephony use in rural Kenya established that mobile phone sharing was the norm in some rural contexts, and offered both advantages and disadvantages.[404] It could allow communal sharing of information such as news listened to dysonon mobile radio, gather people, and encourage interpersonal communication. But it could also expose one's information to others. In one instance, a woman's illiteracy made her dependent on other people, such as her husband or someone else to know the contents of messages sent to her.

The study also noted that the situation introduced "limitations to social interactions, consequently affecting issues of gender roles, power differentiation and shifts in time and space. It is worth noting that even as there remain discrepancies in Internet and ICT access and use, there are illustrations of Kenyann women's achievements in the sector. There are a plethora of commercial, non-profit, and civil society technology organizations founded and/or run by women, some of which have received global recognition such as Ushahidi[405] and Akirachix. [406]

402 ibid

403 ibid

404 Komen, L. (2017). Mobile telephony and copresence in Marakwet, Kenya. *Journal of Development and Communication Studies, 5* 44. 10.4314/jdcs.v5i1.3.

405 Dyson, E. (2014, April 24). Ory Okolloh. Retrieved from https://time.com/70848/ory-okolloh-2014-time-100/

406 Lionesses of Africa (2015, Nov. 18). Judith Owigar: The startup story of a visionary Kenyan techpreneur working to make a huge impact by nurturing the talents of women in technology. Retrieved from http://www.lionessesofafrica.com/blog/2015/11/18/the-startup-story-of-judith-owigar; and Rotich, J. (2013, June 18). Meet BRCK, Internet access built for Africa. Retrieved from https://www.youtube.com/watch?v=qsJYrwzfd6w

▶ ***Indicator:*** *Existence of national mechanisms to monitor women's inclusion in strategies for Internet access and use*

The National ICT Master Plan 2014 - 2017[407] identified various activities and projects but did not have a structured monitoring and evaluation process to evaluate the project's implementation. This resulted in the absence of publicly available documentation to assess how well women had been included in strategies related to Internet access and use.[408] However, a Task Force has since been constituted to review the Master Plan 2014-2017 with digital inclusivity identified among the principles that will guide future implementation. Digital inclusivity is defined as "the equitable and non-discriminate availability of and access to ICTs across county governments, urban and rural areas, gender, women, youth, the marginalized and people living with disabilities".[409]

XA.2 Is there a gender digital divide in Internet access and use and, if so, is this gender divide growing, stable or diminishing?

▶ ***Indicator:*** *Proportions of individuals using the Internet, disaggregated by sex, compared with gender gaps in income and educational attainment.*

An International Telecommunication Union (ITU) report[410] indicated that while many regions globally had experienced shrinkage in the gender digital divide, Africa had experienced an expansion. Also, that the proportion of women on the continent using the Internet was 25% lower than that of men.

There continues to be a gender divide in Internet access and use in Kenya, particularly so in the rural areas.[411] But it is not sufficiently clear what the nature of the gap is particularly given the limited research on rural communities, as a recent study[412] revealed that "… statistics touting increases in mobile phone ownership (and Internet access) reveal little about spatial differences despite knowledge of the infrastructural differences that exist between rural and urban areas. Access statistics provided by the International Telecommunication Union (ITU) and Socialbakers.com make it abundantly clear that handset ownership and Internet access are growing in Africa.

407 National Master Plan 2014-2017 http://icta.go.ke/pdf/THE%20NATIONAL%20ICT%20MASTERPLAN%202017.pdf

408 Ndung'u, M.N., Lewis, C., & Mothobi, O. (2019). After access: The state of ICT in Kenya. Policy Paper No. 9, Series 5. Research ICT Africa

409 ibid

410 ITU (2017). ICT facts and figure 2017. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf

411 Ndung'u, M.N., Lewis, C., & Mothobi, O. (2019). After access: The state of ICT in Kenya. Policy Paper No. 9, Series 5. Research ICT Africa

412 Komen, L. (2017). Mobile telephony and copresence in Marakwet, Kenya. *Journal of Development and Communication Studies, 5* 44. 10.4314/jdcs.v5i1.3.

However, they do not provide information about how poor mobile networks, limited electricity, and persistent poverty— common features of rural life—affect ownership and access".[413]

A 2008 study[414] established that men were the first to have phones in rural Kenya. Other findings were that rural women often had second-hand phones which limited their access to information, and had other costs to maintain such as repair, including buying or recharging old batteries. The phones were used to send or receive texts, receive M-pesa monies, and to use a torch or radio. For many of the rural women studied, the Internet and using the phone to access it were new and time-consuming activities, and were not priorities in their busy day-to-day lives.[415]

▶ ***Indicator:*** *Proportions of adult women and men with mobile broadband subscriptions disaggregated by sex, compared with gender gaps in income and educational attainment.*

Mobile broadband has contributed greatly to ICT development and tends to be more affordable than fixed broadband in most developing countries.[416] In Kenya, the number of mobile broadband subscriptions in Kenya rose from 20.5 million to 22.2 million between June 2018 and June 2019, accounting for 44.5% of the total data/Internet subscriptions. However, the CA, or the telecom providers do not provide data disaggregated by gender with which to assess against income and gender levels.

▶ ***Indicator:*** *Survey data on Internet awareness and on patterns of Internet use, disaggregated by sex*

The Communications Authority of Kenya (2019)[417] releases quarterly sector statistics which are based on data provided by Internet and mobile phone service providers. In the April - June 2019 quarter, there were 52 million active mobile phone SIM cards with an estimated 96% mobile network coverage. There were also 50 million Internet subscriptions during the same period.

This is a steep rise compared to statistics from September 2015, which showed the number of Internet users in Kenya stood at 31.9 million, which was estimated at Internet access rate of 74 for every 100 people. There were 36.1 million mobile subscriptions while mobile phone penetration stood at 88.1 percent. Moreover, mobile data subscriptions contributed to 99

413 Wyche, S., & Olson, J. (2018). Kenyan women's rural realities, mobile Internet access, and "Africa Rising." Information Technologies & International Development (Special Section), 14, 33–47.

414 ibid

415 ibid

416 ITU (2017). ICT facts and figure 2017. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf

417 Communications Authority of Kenya (2019). Fourth quarter sector statistics report for the financial year 2018/2019 (April – June 2019). Nairobi, Kenya: Communications Authority of Kenya.

percent of total Internet subscriptions, which stood at 21.6 million. This is attributed to the entry of cheaper Internet-enabled phones into the market in recent years. The Communications Authority of Kenya does not typically disaggregate the quarterly statistics report by gender.

▶ ***Indicator:*** *Perceptions of barriers to Internet access and use, and of the value of Internet access and use, disaggregated by sex*

Multiple factors pose barriers to access and use of the Internet, including access to computers or mobile phones, the costs of purchasing Internet-enabled phones, of purchasing phones, the socio-cultural context such as in rural areas where a woman was more likely to have a second-hand phone which had limited features, and old batteries.[418]

As Jensen and Mahan point out: "Gendered indicators ostensibly continue to be at the top of everyone's agendas,"[419] yet "none of the major ICT or science and technology frameworks disaggregate data and indicators based on gender, and the major gender equality indexes also do not incorporate ICT and science and technology."

XA.5 Do the law, law enforcement and judicial processes protect women and girls against online gender-based harassment and violence?

▶ ***Indicator:*** *Existence of a relevant legal framework and judicial processes*

The Computer Misuse and Cybercrimes law[420] criminalizes abuse on social media and cyberbullying. However, one study found that there were inadequate reporting mechanisms on social media, law officials were not adequately equipped or were they all aware of cyber crimes; bureaucracy in the law enforcement setting discouraged victims from reporting abuse.[421] A variety of digital safety programs are run by a variety of organizations, targeting journalists, students, and bloggers. However, a greater variety of digital safety awareness and training sessions would be of value as a form of curbing online violations.

418 Komen, L. (2017). Mobile telephony and copresence in Marakwet, Kenya. *Journal of Development and Communication Studies, 5* 44. 10.4314/jdcs.v5i1.3. And Wyche, S., & Olson, J. (2018). Kenyan women's rural realities, mobile Internet access, and "Africa Rising." Information Technologies & International Development (Special Section), 14, 33–47.

419 Huyer, Sophia & Hafkin, Nancy. (2018). Engendering the Knowledge Society: Measuring Women's Participation. 10.13140/RG.2.2.18752.64003. https://www.researchgate.net/publication/323402205_Engendering_the_Knowledge_Society_Measuring_Women's_Participation

420 The Computer Misuse and Cybercrimes Act 2018 (http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/ComputerMisuseandCybercrimesActNo5of2018.pdf)

421 Ongoma, N. & Wandia, T. (2018). Women and online violence in Kenya. Nairobi, Kenya: Ford Foundation

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Indicator: *Incidence of online gender-based harassment and violence experienced by women and girls*

Various studies have found that women have often been attacked online, mostly on social media. A 2014 Pew Research study[422] found that 40% of Internet users had experienced online harassment, with stalking and sexual harassment being more prevalent among young women compared to young men or to older counterparts.

Several studies undertaken in the Kenyan context established high levels of online harassment among women, many of them sexual in nature. Modes of attack include sexual harassment, surveillance, cyber stalking, and unauthorized use of images, videos or other personal information, fraud, cyber bullying, doxing, verbal abuse, revenge porn, hacking of accounts, and extra judicial threats.[423]

Further, two studies undertaken in 2010[424] and 2013[425] explored cybercrime statistics in the Kenya context with an emphasis on women's experiences. The 2020 Kictanet[426] study defined cybercrime as "any activity on the Internet that offends human sensibilities," and further categorised cybercrimes into three categories as follows: against a person, property, or government. Harassment and stalking were identified as leading crimes against women online.

The 2013 KICTANet[427] study identified various forms of technology-based violence against women as follows: digital manipulation of photos, circulation of intimate photos, harassment through cell phones, cyberstalking, gender stereotypical comments, and hate crimes. Tools used to perpetrate these crimes included mobile phones, social media, email, and mailing lists.

Moreover, a 2018 study[428] noted that even as the number of Internet users continued to grow, there were accompanying threats including limited digital illiteracy and lack of awareness of the threats. The respondents in this study noted that the outcome of the violations included

422 Pew Research Center (2014). Online harassment. Retrieved from https://www.pewresearch.org/Internet/wp-content/uploads/sites/9/2014/10/PI_OnlineHarassment_72815.pdf

423 Article 19 (2016). Women journalists' digital security. Nairobi, Kenya: Article 19 Eastern Africa and Ongoma, N. & Wandia, T. (2018). Women and online violence in Kenya. Nairobi, Kenya: Ford Foundation

424 Kictanet (2010). Women and cybercrime in Kenya: The dark side of ICTS (Working document Vol. 1). Retrieved from https://www.kictanet.or.ke/documents/Activities/Women-and-CyberCrime-in-KE/Women_and_Cybercrime_in_Kenya_Literature_Review_report_working_ver4.pdf

425 KIctanet (2013). Women and cybercrime: The dark side of ICTs (2nd ed.). Retrieved from https://www.kictanet.or.ke/Activities/Women-and-CyberCrime-in-KE/Kenya_Study-Women-and-Cybercrime-2nd-Edition-2013.pdf

426 Kictanet (2010). Women and cybercrime in Kenya: The dark side of ICTS (Working document Vol. 1). Retrieved from https://www.kictanet.or.ke/documents/Activities/Women-and-CyberCrime-in-KE/Women_and_Cybercrime_in_Kenya_Literature_Review_report_working_ver4.pdf

427 KIctanet (2013). Women and cybercrime: The dark side of ICTs (2nd ed.). Retrieved from https://www.kictanet.or.ke/Activities/Women-and-CyberCrime-in-KE/Kenya_Study-Women-and-Cybercrime-2nd-Edition-2013.pdf

428 Ongoma, N. & Wandia, T. (2018). Women and online violence in Kenya. Nairobi, Kenya: Ford Foundation

self-censorship or limiting activities on social media, such as not uploading personal pictures, avoiding controversial conversations, muting notifications, or abandoning social media.

The study also found that older women were less vulnerable to online attackers due to greater access to legal support, having a network of personal support, and an ability to report attackers. Also, there was the possibility of online violence moving to offline violence such as with cyber stalking where the perpetrator used information posted online to find the women in their physical locations.[429]

A 2016 Article 19[430] study found that Kenyan women journalists were heavy users of various social media, and 75% of them had experienced online harassment in their professional work. Hacking, stalking and threats were reported to be the most common forms of digital harassment of the women journalists.

▶ ***Indicator:*** *Evidence of government, law enforcement and judicial action to provide protection to women against online gender-based harassment and violence.*

A 2010 KICTANet[431] report observed that Kenyan legislation and policy did not have specific provisions for cybercrimes such as stalking, chat room abuse, impersonation, identity theft and others. The report further noted that the existing legislation at the time, the Kenya Information and Communication (Amendment) Act[432] recognized the phenomenon of cyber crime but focused on protecting crimes against property and information technology infrastructure rather than against the person. Infrastructure. Additionally, many victims of cybercrime tend to be unwilling to report to law enforcement authorities, which means that there is little empirical data on the type and extent of crime.

The 2013 KICTANet study observed that there was minimal reporting of cybercrimes against women "due to feelings of embarrassment, shame, and conviction that no action will be taken by the police or relevant authorities." More broadly, the Cabinet Secretary in charge of Internal Security observed that the government was focused on harmoning its policy and legal approaches to global standards, a challenge magnified by the different legal frameworks that government cyber security around the world.[433]

429 ibid

430 Article 19 (2016). Women journalists' digital security. Nairobi, Kenya: Article 19 Eastern Africa.

431 Kictanet (2010). Women and cybercrime in Kenya: The dark side of ICTS (Working document Vol. 1). Retrieved from https://www.kictanet.or.ke/documents/Activities/Women-and-CyberCrime-in-KE/Women_and_Cybercrime_in_Kenya_Literature_Review_report_working_ver4.pdf

432 The Kenya Information and Communication (Amendment) Act 2013 (http://kenyalaw.org/kl/fileadmin/pdfdownloads/AmendmentActs/2013/KenyaInformationandCommunications_Amendment_Act2013.pdf)

433 Kimanzi, D. & Toroitich, E. (2019, Oct. 24). Kenya's bid in enhancing cybersecurity in the country. The Standard. Retrieved from https://www.standardmedia.co.ke/

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▶ ***Indicator:*** *Existence of online services which are intended to protect women against online gender-based harassment*

The national Computer Incident Response Team (KE-CIRT) allows for the reporting of incidents or vulnerabilities in its website, through a telephone hotline and an email address (incidents@ke-cirt.go.ke).[434] Vulnerabilities it has identified include: identity theft, intrusion, malicious code outbreak, malware threat, phishing, request for forensics, spam, suspicious traffic, web defacement and other others. Incidents are also identified and they include: abusive content, malicious code, information gathering, intrusion attempts, intrusions, availability, information security, fraud, vulnerability, and others.[435]

THEME B
Children

XB.3 How do children perceive and use the Internet?

▶ ***Indicator:*** *Perceptions of the Internet among children derived from surveys, including barriers to use, value of use and fears concerning use, aggregate and disaggregated*

The National Council for Children's Services defines a child as "an individual who has not attained the age of eighteen years or any human being under the age of eighteen years. A growing number of children in Kenya have access to the Internet and digital technologies[436]. The Communications Authority of Kenya has noted the various content that children access online, including: commercial and fan sites, entertainment sites, communication/chat sites, and games and interactive sites. Additionally, children are more likely to be drawn to visual content – such as pictures or videos – rather than text.[437] The CA also notes the risks that children are exposed to online, including: online enticement, inappropriate content (e.g. of a sexual or violent nature),

434 Communications Authority of Kenya (n.d.b). (The national KE-CIRT/CC: Report an incident. Retrieved from https://www.ke-cirt.go.ke/index.php/report-an-incident/)

435 Communications Authority of Kenya (n.d.c). (The national KE-CIRT/CC: Report a vulnerability. Retrieved from https://www.ke-cirt.go.ke/index.php/report-a-vulnerability/)

436 Ndemo, B. & Munyuwiny, S. (2018). Findings from Baseline Survey on Online Child Sexual Exploitation in Mombasa, Nairobi, Nakuru and Kisumu Counties, Kenya. Nairobi: AICS, Terre Des Hommes, & Childline Kenya

437 Communications Authority of Kenya (2014). Children and the use of the Internet. Retrieved from https://ca.go.ke/wp-content/uploads/2018/02/Children-And-The-Use-Of-Internet.pdf

legal and financial risks, viruses and hacks, unmoderated forums, addiction to particular content or behavior and unmonitored access to the children[438].

A 2018 study observed that while the Internet was useful in providing opportunities for the development of children, it was also an effective platform for promoting online child sexual exploitation (OCSE). The forms of OCSE common in Kenya are livestreaming of children performing sexual acts, distribution of child pornography, and online enticement of children for offline abuse.[439]

A third of the children in the 2018 study reported frequently engaging in high risk online activities, lured by the promise of payment or due to being persuaded by a peer or an adult. Nearly half – 44% - of the parents were aware of the online exchange of sexual content among children but only 10% said their child had reported such an incident to them[440]

▶ ***Indicator:*** *Data on the use of the Internet by children, aggregate and disaggregated, compared with other age groups (e.g. data on location, frequency and type of use)*

Different studies conducted between 2013 and 2018 have shown that students in different sections of the country have varying access to the Internet. A 2013 study showed that children between the ages of 12 to 17 accessed the Internet as follows: 42% of the respondents accessed the Internet twice or thrice a week; A quarter of the respondents (25%) and 24% accessed the Internet once a day or several times a day respectively. Nine percent accessed the Internet two to three times a month. The study also showed that smartphones were the gadgets most used to access the Internet.[441] The findings are shown in the table below:

Table 14. Survey on Children aged 12-17 Use of Internet in Kenya

Access to Internet	%
Once a day	25
Several times a day	24
Two to three times a week	42
Two to three times a month	9
Total	100

438 ibid

439 Ndemo, B. & Munyuwiny, S. (2018). Findings from Baseline Survey on Online Child Sexual Exploitation in Mombasa, Nairobi, Nakuru and Kisumu Counties, Kenya. Nairobi: AICS, Terre Des Hommes, & Childline Kenya

440 Ndemo, B. & Munyuwiny, S. (2018). Findings from Baseline Survey on Online Child Sexual Exploitation in Mombasa, Nairobi, Nakuru and Kisumu Counties, Kenya. Nairobi: AICS, Terre Des Hommes, & Childline Kenya

441 Murianki C. (2016). A status on child online safety in Kenya. Communications Authority of Kenya. Retrieved from https://www.itu.int/en/ITU-D/Documents/ChildOnlineSafetyInitiative_Kenya.pdf

Children and youth were more likely to access the Internet from mobile phones - and through mobile phone bundles - rather than personal computers. Younger children (12-14 years) were more likely to share a phone with someone else while most of those aged 15-17 had their own phones.[442]

A 2018 study covered children from 405 households in Mombasa, Kisumu, Nakuru, and Nairobi, four out of 47 counties in Kenya. The study found that 65% of the children had access to the Internet, with access doubling among children between 12 - 18, as compared to those between 6 to 11. Overall, 52% of the children gained access to the Internet on their own phones, while 32% used the phone of a parent or caregiver. The study also indicated that children of age 12 and above had a 74.5% probability of having access to the Internet.[443]

Most children accessed social media online – mainly Facebook and WhatsApp - while online through their personal or parents' phones. However, the 2018 study showed that a worryingly high number of children had engaged in some form of risky activity online,[444] as shown in the table below.

Table 15. Risky activities engaged in by children

Risky activity	%age
Accepted/sent a friendship request with a stranger	75%
Shared message to arouse sexual feeling	36%
Viewed sex acts in chatrooms/webcams	24%
Shared nude photos online	19%
Shared video recording of own sex act	9%

Source: Ndemo and Munyuwiny, 2018

XB.4 Is there a legal and policy framework to promote and protect the interests of children online, and is this effectively implemented?

▶ ***Indicator:*** *Existence of a policy framework and legal protections consistent with the Convention on the Rights of the Child (CRC), and evidence that this is implemented by government and other competent authorities*

Key policy areas in relation to children online include safety and education. Organizations involved in policy making related to children include the Department of Children's Services. The

442 Terre des Hommes (2018). The dark side of the Internet for children: Online child sexual exploitation in Kenya- A rapid assessment report. Retrieved from https://www.terredeshommes.nl/sites/tdh/files/uploads/tdh-nl_ocse_in_kenya_research_report_feb_2018.pdf

443 Ndemo, B. & Munyuwiny, S. (2018). Findings from Baseline Survey on Online Child Sexual Exploitation in Mombasa, Nairobi, Nakuru and Kisumu Counties, Kenya. Nairobi: AICS, Terre Des Hommes, & Childline Kenya

444 Ibid

legal framework for children's rights include the Constitution; the Children's Act, 2001; the Kenya Information and Communications (Amendment) Act, 2013; Computer Misuse and Cybercrimes Act, and the Sexual Offences Act, 2006.[445]

The government established a national child helpline in 2006 for children to report different forms of abuse. In a 2016 study no reference was made to digital abuses which suggests that offences against children were not reported, or people did not know how to report them. The helpline is telephone and Internet-based. The types of abuse reported included child neglect, sexual abuse, physical abuse, child labour, emotional abuse, and child trafficking/abduction.

However, the increased access to and use of ICTs in Kenya has led to children using mobile phones and other ICTs devices to access the Internet. This has exposed them to various risks including online and offline sexual exploitation. For instance, a 2018 study reveals that "Kenya has become a source of indecent images of minors, which are circulated online by UK offenders, who then choose Kenya as their designation for child sex tourism".[446]

The objectives of the National Children's Services include protecting children against online sexual exploitation with proposed activities including the following: review information available on the extent of SEC in the online environment; create awareness on child online protection through theatre; hold regional dialogue circles with children and youth to advocate for child online protection and Internet governance; train cyber business owners and operators on child online protection; review, adopt and implement community and school-based child online protection awareness programmes; lobby development partners to prioritize activities on child online protection; develop a framework on child online protection; lobby for budgetary allocation from the private sector towards child online protection.

The government established a national child helpline in 2006 for children to report different forms of abuse. However, a Childline report[447] on child protection spanning 10 years (2006 - 2016) states that the types of abuse reported were: child neglect, sexual abuse, physical abuse, child labour, emotional abuse, and child trafficking/abduction. The report made no specific reference to digital space, which suggests that children do not report them, do not know to report them or the study did not seek the information out. The helpline is telephone and Internet-based.

Moreover, children are vulnerable online to sexual exploitation given the spread of mobile phone penetration and Internet access.[448] There are three categories that offer online risk for children: content, where a child may receive inappropriate content or messages; contact, where a child

445 Watoto Watch (n.d.). Law. Retrieved from http://watotowatchnetwork.org/law/

446 National Children's Services

447 Child Protection Report 2006 - 2016 (http://www.childlinekenya.co.ke/assets/files/Child-Protection-Report-2006-2016.pdf)

448 Terre des Hommes (2018). The dark side of the Internet for children: Online child sexual exploitation in Kenya- A rapid assessment report. Retrieved from https://www.terredeshommes.nl/sites/tdh/files/uploads/tdh-nl_ocse_in_kenya_research_report_feb_2018.pdf

may engage in interactions that pose a risk; and conduct, where a child may engage in risky behavior.

Children who are particularly at risk of online child sexual exploitation include children living with disabilities, those in poverty or marginalized communities, and children with mental health challenges. The external conditions that make Kenyan children vulnerable to sexual exploitation include the children's relatively good grasp of English, easy access to the Internet and social media sites, and established payment systems such as M-Pesa.[449]

Yet there remain barriers including areas of concern related to children online that are not clearly covered by policy. These areas include sexual exploitation, cyber bullying, and exposure to inappropriate content. The Terre des Hommes report notes that: "while Kenya has invested heavily in developing, implementing and expanding its digital environment, such progress does not seem to have been matched by increased social awareness or targeted child protection measures that effectively address and mitigate the risks that children face from the growing and widespread Internet use and mobile technology"[450] Additionally, there remain challenges in arresting and prosecuting perpetrators of online crimes against children.

The Communications Authority of Kenya has partnered with various organizations to combat various types of child online crimes including cyber-bullying, solicitation of minors, identity theft, online fraud, child pornography and Internet addiction. In March 2019, the Child Protection Unit launched a cyber wing designed to combat online sexual abuse of children.[451] This wing is designed to enable authorities to track child abuse through data from technology firms. This unit has been useful in enabling collaborations with local, regional and other authorities entities such as Interpol and social media companies to track perpetrators of online crimes against children and to protect children such as by pulling down harmful content. A new Children's Bill of 2019 that is yet to be enacted provides updated provisions in law and is expected to better protect children online.

449 Terre des Hommes (2018). The dark side of the Internet for children: Online child sexual exploitation in Kenya- A rapid assessment report. Retrieved from https://www.terredeshommes.nl/sites/tdh/files/uploads/tdh-nl_ocse_in_kenya_research_report_feb_2018.pdf

450 Terre des Hommes (2018). The dark side of the Internet for children: Online child sexual exploitation in Kenya- A rapid assessment report. Retrieved from https://www.terredeshommes.nl/sites/tdh/files/uploads/tdh-nl_ocse_in_kenya_research_report_feb_2018.pdf

451 Kenya gets first cyber unit to fight child sex abuse https://www.nation.co.ke/news/Kenya-gets-first-cyber-unit-to-fight-child-sex-abuse/1056-5041396-trw3ca/index.html

THEME C
Sustainable Development

XC.1 Do national and sectoral development policies and strategies for sustainable development effectively incorporate ICTs, broadband and the Internet?

▶ ***Indicator:*** *Existence of a recent, comprehensive policy for the development of ICTs, broadband and the Internet, which includes consideration of likely future developments in these fields*

The government has developed several policy documents related to sustainable development that incorporate ICTs, broadband and the Internet. Vision 2030 (and its Medium Term Plan, the Big 4 Agenda) and the the Kenya Information and Communication Act 2013[452] recognize ICT as an enabler of socio-economic development. Furthermore sector specific documents such as the National ICT Policy (2006) which has undergone revision, the National Broadband Strategy (2012) which has also been revised, and the National ICT Strategic Plan (2013-2017) outline in depth the role of ICTs in society.

Among these areas are e-commerce, which is growing in sub-Saharan Africa, disrupting business models, services, and products.

The National ICT survey (2016) established that 39% of private enterprises in Kenya were engaged in e-commerce. A 2019 GSMA[453] report indicated that in the last two years, sub-Saharan African had emerged as among the 12 fastest growing financial technology hubs in the world. The report further indicated that more than 60% of adults in Kenya among other countries owned a mobile money account, with nearly 9 out of every 10 mobile money accounts being in East and West Africa. Interoperability among telecommunications firm (telcos) platforms is central to the growth of mobile money services, enabling the transfer of money among different players in the financial system, including banks and telcos. The range of payment options has also increased beyond credit cards to include mobile money payments.

Other than services and products such as ride-hailing applications and e-commerce platforms, new commercial opportunities are arising with the emergence of artificial intelligence and

452 The Kenya Information and Communication (Amendment) Act 2013 http://kenyalaw.org/kl/fileadmin/pdfdownloads/AmendmentActs/2013/KenyaInformationandCommunications_Amendment_Act2013.pdf

453 GSMA - The mobile economy sub-Saharan Africa 2019 (https://www.gsma.com/r/mobileeconomy/sub-saharan-africa/)

blockchain. In 2019, Google and Microsoft launched labs in Accra and Nairobi respectively to promote artificial intelligence and machine learning.[454]

In Kenya however, there is limited legislation governing this rapidly growing area which had reached the KSh. 1 trillion mark in 2018.[455] The indicates that there is limited data in this area, including which factors challenge the growth of e-commerce. The report notes that it is "extremely difficult to try and develop policies on promoting e-commerce growth yet basic consumer data does not exist e.g. should the country's focus be on domestic e-commerce or should it be on international e-commerce, which could generate foreign exchange."

Consumer purchase rights and laws have also not been enacted in Kenya, while e-commerce platforms are not regulated which leaves consumers vulnerable to online harm. Additionally, there needs to be a reduction in the instability of Internet connectivity and the cost of communicating.[456]

XC.7 What proportion of businesses, including small and medium sized businesses make use of the Internet and e-commerce?

▶ ***Indicator:*** *Proportion of SMEs using the Internet, by type of access*

Online commerce is a growing area in sub-Saharan Africa, disrupting business models, services, and products. However, there has been limited research on the adoption of e-commerce among small- and medium-sized enterprises in Kenya.[457] The study of 35 travel and tour operators found 100% adoption of e-commerce, and additionally, e-commerce was influenced by infrastructure, broadband connections, availability, reliability, telecommunication costs, and the supply chain established. E-commerce also opened SMEs to new markets.

Another study in 2013[458] found that the majority of 163 SMEs in Nairobi had not adopted e-commerce nor did they have a functioning e-commerce strategy. Only 22% of the companies had active websites that had interactive engagement with their clients, 31% had static websites, while 43% did not have working websites. E-commerce was found to provide strategic value for the firms that had adopted it.

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454 Google has opened its first Africa Artificial Intelligence lab in Ghana https://edition.cnn.com/2019/04/14/africa/google-ai-center-accra-intl/index.html

455 Communications Authority of Kenya (n.d.a) The development of e-commerce in Kenya. Retrieved from https://ca.go.ke/industry/ecommerce-development/

456 Rotich, J. (2013, June 18). Meet BRCK, Internet access built for Africa. Retrieved from https://www.youtube.com/watch?v=qsJYrwzfd6w

457 Wanjau, K., Macharia, R.N., & Ayodo, E.M.A. (2012). Factors Affecting Adoption of Electronic Commerce among Small Medium Enterprises in Kenya: Survey of Tour and Travel Firms in Nairobi. International Journal of Business, Humanities and Technology, 2(4), 76 – 91.

458 Mutua, J., Oteyo, I.N., & Njeru, A.W. (2013). The Extent of E-Commerce Adoption among Small and Medium Enterprises in Nairobi, Kenya. *International Journal of Business and Social Science, 4*(9), 116 – 122.

The 2016 National ICT survey[459] established that overall, 39% of private enterprises in Kenya were engaged in e-commerce. Further, a 2019 GSMA[460] report indicated that in the last two years, sub-Saharan African had emerged as among the 12 fastest growing financial technology hubs in the world. However, as the Communications Authority[461] observed, there is no data to show what barriers slow the growth of the e-commerce sector, and why Kenyans are not fully engaged in online purchasing.

▶ ***Indicator:*** *Perceptions of the value of Internet use by SMEs*

A 2019 GSMA[462] report indicated that more than 60% of adults in Kenya among other countries owned a mobile money account, with nearly 9 out of every 10 mobile money accounts being in East and West Africa. Interoperability among telecommunications firm (telcos) platforms is central to the growth of mobile money services, enabling the transfer of money among different players in the financial system, including banks and telcos. The range of payment options has also increased beyond credit cards to include mobile money payments. While there are no statistics to assess perceptions of value, the increased adoption of mobile payments for example, shows a growing positing perception of the value of Internet use by SMES.

THEME D
Trust and Security

XD.1 Is there a national cybersecurity strategy, with multi stakeholder engagement and aligned with international human rights standards, including a national computer emergency response team (CERT) or equivalent?

▶ ***Indicator:*** *Existence of cybersecurity strategy, with multistakeholder involvement, which is consistent with international rights and norms*

459 National ICT Survey (http://ca.go.ke/wp-content/uploads/2018/02/National-ICT-Survey.pdf)

460 GSMA - The mobile economy sub-Saharan Africa 2019 (https://www.gsma.com/r/mobileeconomy/sub-saharan-africa/)

461 Communications Authority of Kenya (n.d.a) The development of e-commerce in Kenya. Retrieved from https://ca.go.ke/industry/ecommerce-development/

462 GSMA - The mobile economy sub-Saharan Africa 2019 (https://www.gsma.com/r/mobileeconomy/sub-saharan-africa/)

Kenya's cybersecurity legal framework includes the Computer Misuse and Cybercrimes Act[463] and the Kenya Information and Communications Act.[464] The government also developed the National Cybersecurity Strategy 2014[465] which has four strategic goals which are to: enhance the nation's cybersecurity posture in a manner that facilitates the country's growth, safety, and prosperity; build national capability by raising cybersecurity awareness and developing Kenya's workforce to address cybersecurity needs; foster information sharing and collaboration among relevant stakeholders to facilitate an information sharing environment focused on achieving the Strategy's goals and objectives; and, provide national leadership by defining the national cybersecurity vision, goals, and objectives and coordinating ybersecurity initiatives at the national level.[466]

Undergirding the strategy is the need to "secure the online environment for citizens, industry, and foreign partners; increasing the Kenyan people's confidence in online transactions, data security, fraud protection, and privacy; encouraging greater foreign investment and enhancing trade opportunities; and enabling Kenya's broader economic and societal goals".

Among the action points contained in the strategy are to establish formal regional and multistakeholder partnerships. Partners in CIRT at national, regional and international levels include telecommunication companies, the ICT Authority, the Central Bank of Kenya, Internet Service Providers (ISPs), the Kenya Education Network (KENET), academia, the East African Communications Organization Cybersecurity Working Group, and the International Telecommunications Union.

▶ ***Indicator:*** *Establishment of national CERT or equivalent, and evidence concerning its effectiveness*

The Communications Authority of Kenya is mandated by the Kenya Information and Communications Act to establish a Computer Incident Response Team (CIRT) that serves as its national cyber security management framework. The CIRT is a multi-agency partnership that coordinates national cyber security, and runs telephone hotlines and an email address through which one can report an incident. It also issues advisories on scams and other cyber threats, including online bullying, and fraud. The team still has challenges in carrying out its functions, including budgets, capacity, effectiveness and so on.

463 The Computer Misuse and Cybercrimes Act 2018 (http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/ComputerMisuseandCybercrimesActNo5of2018.pdf)

464 The Kenya Information and Communication (Amendment) Act 2013 (http://kenyalaw.org/kl/fileadmin/pdfdownloads/AmendmentActs/2013/KenyaInformationandCommunications_Amendment_Act2013.pdf)

465 National Cybersecurity Strategy 2014 (http://icta.go.ke/pdf/NATIONAL%20CYBERSECURITY%20STRATEGY.pdf)

466 National Cybersecurity Strategy 2014 (http://icta.go.ke/pdf/NATIONAL%20CYBERSECURITY%20STRATEGY.pdf)

XD.4 Have there been significant breaches of cybersecurity in the country within the last three years?

▶ ***Indicator:*** *Incidence and nature of breaches reported, and numbers of individuals and businesses affected*

In 2019 the Communications Authority of Kenya [467] indicated there had been 26.6 million cyber threats during the April - June 2019 quarter, a 136.4% increase from the previous quarter's reported 11.3 million threats. The increase was linked to a global increase in malware including ransomware attacks during the quarter. Various forms of cybersecurity breaches have been experienced in the country, including the hacking and defacing of government websites in June 2019,[468] online bank theft,[469] actual and attempted data breaches.[470]

A report by cybersecurity firm Serianu shows the cost of cybercrime in Kenya in 2018 was KES 30 billion (USD 300 million), but organizations could lose more in the coming years. Moreover, there was an increase in organizational spend in cybersecurity from 2017 to 2018. The report indicated that 26 percent of respondents said they spend above a million shillings on cybersecurity.[471]

▶ ***Indicator:*** *Perceptions of Internet security among users, businesses and other stakeholder groups*

The level of cybersecurity awareness in Kenya is still low with 15% of organizations not having an established cyber security training programs. According to Serianu, most organizations (23%) are also still very reactive when it comes to cyber security training, these organizations train their staff only when there is an incident or problem. This is worrying considering 54% of all cyber attacks reported in the survey was through work.[472] The report also notes that Kenyan companies are also reluctant to develop the skill sets of their security team through frequent training and certifications. This is due to the fact that information security is still seen as an expense rather than a return on investment.[473]

467 Communications Authority of Kenya (2019). Fourth quarter sector statistics report for the financial year 2018/2019 (April – June 2019). Nairobi, Kenya: Communications Authority of Kenya.

468 Otieno, B. (2019, June 3). NYS and IFMIS among government websites hacked. Retrieved from https://www.businessdailyafrica.com/

469 Standard Team (2019). How big banks lost billions in one week to cyber criminals. *The Standard*. Retrieved from https://www.standardmedia.co.ke/

470 Privacy International (n.d.). State of privacy Kenya. Retrieved from https://privacyinternational.org/state-privacy/1005/state-privacy-kenya

471 Serianu (2018) Kenya ICT report 2017: Demystifying Africa's cyber security poverty line. Retrieved from https://www.serianu.com/downloads/KenyaCyberSecurityReport2017.pdf

472 ibid

473 ibid

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▶ ***Indicator:*** *Data concerning phishing, spam and bots in national level domains*

According to Serianu, weak security infrastructure led to multiple attacks of various types including phishing, cyber pyramid schemes. These cost Kenyans an estimated KES 2 trillion. Further, the hacking of government sites led to weakened service delivery and election hacking.[474] In one quarter of 2017, Kaspersky Labs blocked 51 million attempts at setting up phishing pages.

THEME E
Legal and Ethical Aspects of the Internet

XE.3 How do individuals perceive the benefits, risks and impact of the Internet within the country?

▶ ***Indicator:*** *Perceptions of the benefits, risks and impact of the Internet, derived from household or opinion surveys, disaggregated by sex*

Women generally have less access to ICTs than men and this is expected to increase as the technologies and services become more sophisticated and expensive, requiring greater levels of income and education to access and to operate. The analysis demonstrates that gender disparities exist for mobile phone adoption in rural areas. In urban areas, differences in mobile phone adoption are a consequence of the differences in income and education. Internet adoption, however, is affected by gender disparities in both urban and rural areas and women seem to be the last movers (or late adopters) of technology in this case.

XE.4 Do Internet users report experiencing significant harassment or abuse at the hands of other Internet users which deters them from making full use of the Internet?

▶ ***Indicator:*** *Availability of reporting mechanisms for online harassment or abuse, including reporting arrangements by online service providers*

474 ibid

Social media platforms have become a fertile ground for the perpetration of sexual and gender-based violence. These forms of violence are a clear manifestation of existing discrimination that exists offline, which are underpinned by unequal power relations and discriminatory social norms. According to research done by womankind organization, United Kingdom in 2018, women have limited and inadequate measures and redress when they experience online violence.[475]

The research further suggests that women do not feel that the social media platforms have given victims of violence satisfactory response. With many citing that the companies or platforms do not understand the nature of gender abuse. This indicates that the policies put in by the platforms appear to be inadequate. According to Ebele Okobi, Facebook's Head of Policy team in Africa, Facebook provides an extensive amount of tools for people to share The research also states that women from Kenya reported that the police do not have the right training to handle such cases and hence most of them prefer not to report this matter.

▶ ***Indicator:*** *Data on the extent to which Internet users report harassment or abuse, with particular attention to specific demographic and social groups (including women, ethnic and other minorities, and civil activists)*

According to a study by the Association of Media Women in Kenya and Article 19 Eastern Africa, the Internet continues to be an enabling space for the realization of gender equality. However, the same space is being used to harass women through different forms of online violence the most common in Kenya being trolling, cyber harassment, cyberstalking, defamation, public shaming, identity theft, hacking amongst other offenses. The research notes that out of 10 women journalists 7, have experienced online gender based violence. Patriarchy, unequal power relations, and structural gender inequality underpin violence and abuse against women both offline and online.

There also exist challenges in the implementation of existing policy and legal frameworks. The police do not have sufficient capacity to understand the nature of online offences let alone the technology or requisite tools to unmask perpetrators, investigate such cases and deliver justice to victims of such offences. Also, the police do not keep statistics of complaints that are filed, making it difficult to establish trends. In addition, most of the perpetrators of online violence go unpunished because very few victims report the incidents. Lastly, resource constraints and a lack of knowledge and training of police, prosecution and judicial officers, on technology and cyber-crimes, presented serious challenges in investigating and collecting evidence in online violence.

475 Womankind (2018). Breaking the silence: Ending online violence and abuse against women's rights activists. Retrieved https://www.womankind.org.uk/docs/default-source/default-document-library/breaking-the-silence-policy-briefing.pdf?sfvrsn=0

7

Policy Recommendations for Various Stakeholders

Government

- Implement the Data Protection Act 2019 to regulate and ensure good practices of data collection, storage, use, and dissemination.
- Implement the two-thirds gender quota to ensure balanced gender representation in key ICT policy making positions.
- Prohibit violence against women.
- Reform the Children Act to ensure it addresses sexual exploitation, cyberbullying, and exposure to inappropriate content.
- Support e-commerce ventures through infrastructure provision, friendly registration and licensing procedures, reasonable tax requirements, and access to financing.
- Conduct digital literacy campaigns including training on e-commerce to users in both urban and rural areas.
- Train and equip law enforcement officers and make them aware of cyber crimes.
- Have a clear framework for the coordination of cybersecurity efforts, provide leadership, share information, and engage and be accountable to citizens and other stakeholders on cybersecurity matters.

Technical Community

- Ensure the regulation of software and mobile application development to enable ethical and legal protection of users as they provide data.
- Develop products that promote positive and safe online spaces for all users.

Private Sector

- Have clear mechanisms on how their users can protect their data.
- Have clear recourse mechanisms when user rights have been violated, including being able to get legal action in their local contexts.
- Adopt privacy by design approach as a mandatory feature.

- Prioritise and invest in the collection of a wide range of disaggregated data and indicators based on variables such as gender and the major gender equality indexes, geographical location (e.g. rural versus urban), etc. .

Civil Society

- Continue to play a role of being a watchdog over the government to ensure that it does not violate citizens' rights online, but also that it puts in place measures to safeguard citizen rights online.

Media

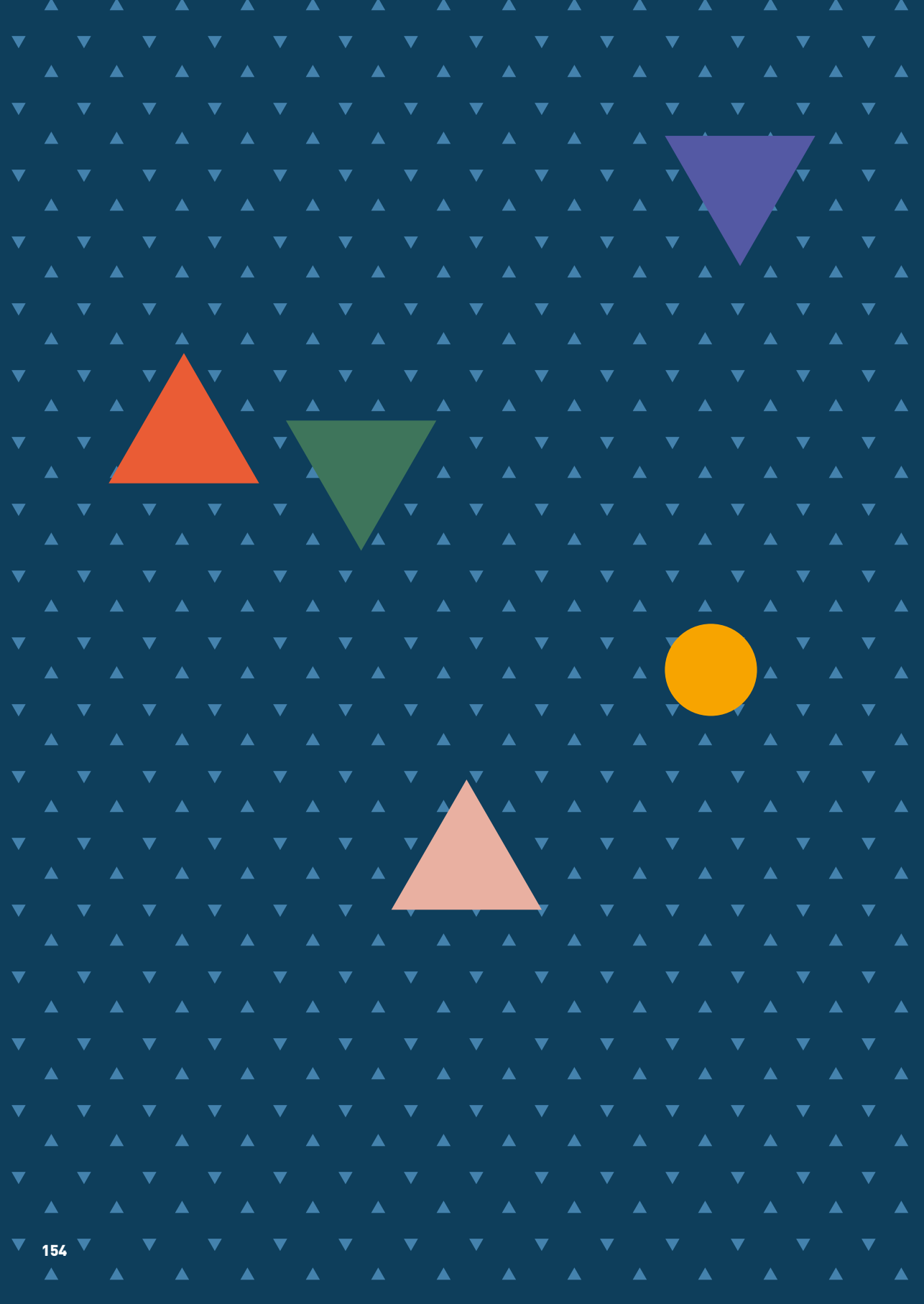
- Use traditional, social and other digital media as platforms to sensitise citizens about cyber-security and other data-related issues.
- Sensitize citizens about their digital rights and other emerging trends.

Academia

- Develop cyber-security literacy programs to be incorporated within curricula across primary, secondary and higher education levels.
- Research on children's access and usage of ICT across social economic, cultural and geographical areas.
- Research on usage and access to ICTs across genders to guide in policy making.
- Engage in gathering and analyzing cross-sectional and longitudinal Internet-related data aggregated in key areas including gender, age, geographical location, and cultural contents.

Individual users

- Make children aware of both the positive and negative aspects of the Internet, from the family level, the education system and the wider society and this can be done through literacy campaigns by the government, media and other interested parties.
- Provide clear policy measures to ensure users are responsible for criminal or bullying conduct against other users.
- Learn about their rights and responsibilities concerning the data they own.



8

CONCLUSIONS AND KEY PRIORITY RECOMMENDATIONS BY STAKEHOLDER GROUPS

This assessment has found that Kenya has a robust Internet environment that is developing in line with international best practice. However, some shortcomings were noted in the various result areas under review that will require review by the various stakeholders to address the gaps that have been highlighted. While there is significant growth in the access and use of ICTs, there still exists a growing digital divide that will need to be bridged with the collaboration of all relevant stakeholders.

Major Findings and Challenges categorized by ROAM –X indicators

CATEGORY R:
Rights

Kenya policy, legal and institutional framework for human rights is comprehensive and adopts international human rights standards. The challenges include the restrictive legal provisions limiting human rights, and in the enforcement and implementation of policies and laws. Also, there is limited focus by key actors to systematically monitor the state of human rights particularly with respect to the digital environment. Moreover, awareness across key sectors on the UN Business and Human Rights principles and individual rights remains areas of concern.

CATEGORY O:
Openness

There are a number of factors affecting the provision of ICT services in the country. The key challenges include the absence of clear regulations for open standards, free and open software and other licensing options for new areas of technology. Further, there is limited government support for Internet access for persons with disability. Also, there are no policies on open markets, open content, open data and open government initiatives. Also, there is little awareness and policies for accessibility of government services online.

CATEGORY A:
Accessibility to All

While access to the Internet has increased over the years largely there are gaps and disparities in connectivity and usage, affordability, equitable access, key platforms, capabilities and competencies and local content and language. Despite the government embracing digitization, many remain unable to access e-government services. Further, there is limited evidence-based research and few comprehensive digital literacy programmes.

CATEGORY M:
Multi-Stakeholder participation

Whereas Kenya's constitution embraces the concept of multistakeholderism in its principle of public participation, public engagement on key policy issues can be limited due to the absence of a law on public participation, low awareness and understanding of policy processes, and unwillingness of policy making bodies to proactively share information in a timely fashion to enable meaningful engagement. However, there are valuable engagements between stakeholders on national Internet governance such as at the Kenya IGF (KIGF).

CATEGORY X:
Cross-cutting indicators

There are significant gaps in addressing challenges emerging from cross-cutting issues such as gender, children, sustainable development, trust and security and legal ethical aspects affect the Internet ecosystem. There are challenges in implementation and enforcement of laws and policies, and weaknesses in institutional capacities. Other challenges include in the areas of addressing child online safety, bridging the gender digital divide, enhancing the nation's cybersecurity posture, enhancing public awareness, and growing the limited empirical research on the impact of cross-cutting issues.

8

Key Recommendations for Action by Stakeholder Groups

Government

Category R – Rights:

- Government agencies such as the Communications Authority of Kenya should invest in research to provide accurate and diverse statistics on Internet use in the country.
- The government should have a clear cultural heritage policy to fulfill Article 11 of the Constitution of Kenya.
- The Films and Stage Plays Act should be reviewed in order to provide oversight of the licensing procedures.
- The office of the Data Protection Commissioner should be established to ensure the protection of personal data.
- The Kenya National Human Rights Commission should monitor and report on human rights violations online.

Category O – Openness:

- Review the licensing framework to include non-commercial business models for provision of ICT services. These include community networks.
- Adopt the multistakeholder model, where they consult all parties. For example, regulation of cryptocurrencies could benefit from research by academia, policy perspectives from civil society as well as experience in regulating ICTs from ICT regulators.
- Encourage the use of free and open software in its ranks, as this promises more transfer of knowledge hence more holistic development.
- Enforce directives on accessibility by ensuring that all broadcasters comply with requirements for making their content accessible to persons with disabilities.
- Publish information on consumer complaints handled.
- Regularly update and publish data for open access. This includes data on open contracting.
- Adopt open data standards, for example publishing data in machine readable formats, especially for Government departments that publish data.

- Sensitize its officers on the importance of open data and access to information, so that the officers stop creating barriers to these resources.
- Pilot other methods of access to e-government services, particularly for marginalized and underserved persons, to cushion them from additional barriers to accessing the services. For example, the government could partner with educational institutions for their facilities to serve as e-government centers and officers in those facilities to work part-time in the centers.
- Develop a policy that guarantees its websites have content in local languages and formats that are widely understood. This includes local languages as well as videos, for example with instructions on application for passports.
- Train officials on the process of digitizing information and the importance of this in terms of access to information by the citizens.
- Facilitate discussion on Kenyan perspectives on network neutrality, to assess how the issue applies locally. Unique Kenyan challenges such as lack of uniform Internet access and the frameworks that support neutrality.
- Address the lack of proper protection for, and the inadequate measures to punish intellectual property infringement.

Category A – Access:

- Invest in regular evidence-based research for decision-making and avail the research data for public consumption. Government agencies should work with research methodologies that are verifiable and can be interrogated by the public.
- Carry out regular studies on accessibility to provide for time comparison, and insights for policy intervention. Specifically, access gap studies with aggregated statistics on gender and location should be carried out on a regular basis.
- Be more proactive, through incentives and regulations, to promote competition in the provision of Internet services; last mile connectivity and Internet Exchange Points (IXPs). The entry barriers to Internet-based enterprises should be lowered through tax incentives and construction of publicly shared infrastructure such as telecommunication masts and ducts. This would lead to better quality of service and affordable prices.
- Implement and periodically evaluate policies on access to information, cybersecurity and universal access.
- Offer online services in both English, Swahili and in local languages to serve those who cannot read and communicate in both English and Swahili. For the population that can neither read nor write, government website content should also include videos and infographics.
- Lower taxes for mobile phones to increase affordability among the citizens.

Category M – Multistakeholder:

- Enact public participation legislation and policy framework to guide the public participation process. The framework should provide for the avenues, thresholds, timelines and formats for citizen engagement while also ensuring access to draft bills, and reporting back structures and mechanisms.
- Create a Public Participation Authority to enforce public participation between agencies making decisions and the public and match public participation tools to objectives.
- Facilitate citizen engagement with Parliament and County Assemblies through alternative media, including radio and mobile phones.
- Adopt open-source platforms to enhance internal parliamentary and County Assembly communication and also facilitate information sharing with the public.
- Provide access to weekly Senate, National Assembly, County Assembly plenary and committee proceedings by leveraging on both traditional and new media.
- Promote multistakeholder participation by having an open door policy on policy formulation process on Internet governance discussions at national and county levels.
- Encourage multistakeholder participation in policy making on ICT issues.
- Have multistakeholder delegations comprising the government, industry, technical experts and civil society to treaty making conferences.
- Leverage social media for expanded public engagement.
- Encourage counties to invest in ICTs.
- Support county governments possibly through USF to interpret policies in local dialects and conduct public participation.

Category X – Cross-Cutting Issues

- Implement the Data Protection Act 2019 to regulate and ensure good practices of data collection, storage, use, and dissemination.
- Implement the two-thirds gender quota to ensure balanced gender representation in key ICT policy making positions.
- Prohibit violence against women.
- Reform the Children Act to ensure it addresses sexual exploitation, cyberbullying, and exposure to inappropriate content.
- Support e-commerce ventures through infrastructure provision, friendly registration and licensing procedures, reasonable tax requirements, and access to financing.

- Conduct digital literacy campaigns including training on e-commerce to users in both urban and rural areas.
- Train and equip law enforcement officers and make them aware of cyber crimes.
- Have a clear framework for the coordination of cybersecurity efforts, provide leadership, share information, and engage and be accountable to citizens and other stakeholders on cybersecurity matters.
- Recognize structural and policy limitations in matters Internet such as across gender, geographical location (rural versus urban), and socio-economic strata.
- Embed under-represented or marginalized digital concerns and interests - in areas including gender, geographical location and socio-economic strata - in research as well as policymaking and implementation.

Private Sector and Technical Community

Category R – Rights:

- Embrace and commit to the United Nations Business and Human Rights Principles.
- Develop policies and review their practices to ensure they are rights respecting by design.
- Collaborate with other stakeholders including civil society to advance human rights within their operations.
- Invest in research and provide statistics on the use of technology, which can be useful for decision-making.

Category O – Openness:

- Collaborate more with universities in research. Public universities which are poorly funded but well resourced with academics are a ready resource on many issues including increasing access to the Internet and advancing local content.
- Invest more in research and development.
- Innovate and develop software and applications using open source software.
- Participate in policy making processes to promote the use of open standards.

Category A – Access:

- Advocate and work with other stakeholders to develop policies that promote Internet access.
- Consider providing Internet and its associated services, for organizations that provide critical cheaper services to communities, such as provision of water and affordable energy alternatives for cooking.

Category M – Multistakeholder:

- Collaborate with industry stakeholders in engaging the government on proposed legislation or proposing amendments on policies and laws, and initiating policies that allow for a conducive business environment.
- Train other stakeholders to understand and get appraised on existing policy concerns.

Category X – Cross-Cutting Issues:

- Ensure the regulation of software and mobile application development to enable ethical and legal protection of users as they provide data.
- Develop products that promote positive and safe online spaces for all users.
- Have clear mechanisms on how their users can protect their data.
- Have clear recourse mechanisms when user rights have been violated, including being able to get legal action in their local contexts.
- Adopt privacy by design approach as a mandatory feature.

Civil Society

Category R – Rights:

- Monitor and report on the state of digital rights in Kenya.
- Continue to hold the government and the private sector accountable for the state of human rights in the country, especially in the digital era.
- Collaborate with other stakeholders to promote the realisation of human rights online.
- Raise awareness of the public on their rights online.

Category O – Openness:

- Rank government websites and portals for ease of use.
- Improve the accessibility of their websites. For example, website content should as far as practicable be in machine readable format to accommodate those with visual and other disabilities. Consumer engagement mechanisms on websites should also be designed to be inclusive to the digitally illiterate and semi-literate as well as persons with disabilities.
- Share more policy perspectives on the role of free and open software in the development of the Internet in Kenya.
- Create awareness on consumer digital rights.

- Analyze the nature of complaints so as to advocate for more long-term solutions for the most pressing problems. For example, consumer complaints on unsolicited political messaging could be resolved through policy interventions such as requiring bulk SMS operators to be accountable for messages sent through their systems.

Category A – Access:

- Advocate and work with other stakeholders to develop policies that promote Internet access.
- Consider providing Internet and its associated services, for organizations that provide critical cheaper services to communities, such as provision of water and affordable energy alternatives for cooking.

Category M – Multistakeholder:

- Conduct research and document data on all multistakeholder engagements to track participation, and monitor inclusion, diversity and stakeholder representation.
- Engage the national and county governments on ICT policy initiatives as well as find ways to collaborate or utilize the existing policy structures and processes to foster good governance.
- Hold the government accountable to transparent and open multistakeholder participation in Internet-related policy processes.
- Advocate for balanced and inclusive stakeholder representation at national, regional and international Internet governance forums.
- Foster more inclusive participation on Internet governance issues from under-represented groups such as women, persons with disabilities and marginalized communities.

Category X – Cross-cutting Issues:

- Continue to play a role of being a watchdog over the government to ensure that it does not violate citizens' rights online, but also that it puts in place measures to safeguard citizen rights online.

Academia

Category R – Rights:

- Conduct more evidence-based research on the use and impact of technology on human rights in Kenya.
- Share the findings of critical research more widely to all relevant stakeholders, in particular policy makers.

Category O – Openness:

- Carry out research for informed decision-making on the issue of net neutrality. There is also need for research on the effects of zero-rated services offered by mobile network companies.
- Make use of available open data to share insights on the society. They should also give feedback to the open data producers on the challenges they face while using the data.
- Curate government content and make it available for use by the public.

Category A – Access:

- Identify their needs and work on innovations that are tailored towards the creation of relevant local content that can drive demand for Internet access among the rural communities.
- Develop courses on digital literacy, for use in primary schools to the university level.

Category M – Multistakeholder:

- Conduct evidence-based research on emerging issues that touch on multistakeholderism.
- Provide evidence-based recommendations on how multistakeholderism can be strengthened.
- Disseminate research findings widely and on different platforms to ensure it reaches different stakeholders.
- Champion for multistakeholderism curriculum on development and design in learning systems.

Category X – Cross-cutting Issues:

- Develop cyber-security literacy programs to be incorporated within curricula across primary, secondary and higher education levels.
- Research on children's access and usage of ICT across social economic, cultural and geographical areas.
- Research on usage and access to ICTs across genders to guide in policy making.
- Engage in gathering and analyzing cross-sectional and longitudinal Internet-related data aggregated in key areas including gender, age, geographical location, and cultural contents.

Media and Journalists

Category R – Rights:

- Use their platforms to create awareness of the public on their rights online.
- Monitor and report on the violations or abuses of human rights in the online context.

- Build their capacity and understanding of human rights, especially in an online context.

Category M – Multistakeholder:

- Report and cover more news stories on Internet governance and the multistakeholder nature of Internet governance.
- Sensitize and promote awareness to citizens on Internet governance issues, in a timely fashion.
- Engage in national, regional and global forums to understand and build knowledge in the area of Internet governance.

Category X – Cross-cutting Issues:

- Use traditional, social and other digital media as platforms to sensitise citizens about cyber-security and other data-related issues.
- Sensitize citizens about their digital rights and other emerging trends.

Individual Users

Category R – Rights:

- Increase their knowledge on their rights in the online context.
- Monitor the practices of other stakeholders and resist abuse of their rights online and seek redress from the appropriate agencies whenever there is a violation.

Category M – Multistakeholder:

- Cultivate interest, and endeavor to participate in awareness creation programs on Internet governance and the meaning of multistakeholderism.

Category X – Cross-cutting Issues:

- Make children aware of both the positive and negative aspects of the Internet, from the family level, the education system and the wider society and this can be done through literacy campaigns by the government, media and other interested parties.
- Provide clear policy measures to ensure users are responsible for criminal or bullying conduct against other users.
- Learn about their rights and responsibilities concerning the data they own.

Annex 1:
List of multistakeholder Advisory Board

No.	Name	Stakeholder Group
1.	Rachel Nakitare	Media
2	John Walubengo	Academia
3	Barrack Otieno	Technical
4	Rosemary Kimwatu	Private Sector
5	Riva Jalipa	Civil Society
6	Dr. Margaret Nyambura	Intergovernmental
7	Kevin Kariuki	Individual Net Users
8	Nzambi Kakusu	Individual Net Users
9	Ali Hussein	Private Sector
10	Sylvia Kang'ara	Legal Researcher
11	Patrick Ochieng'	Civil Society
12	S. M. Muraya	Private Sector (SMEs)
13	Beatrice Sigilai	Telecommunications Engineer

Annex 2:
List of Peer Reviewers

No.	Name	Stakeholder Group
1	Patrick Ochieng'	Civil Society
2	John Kieti	Technical Community
3.	Stanley Murage	Private Sector
4	Bob Ochieng'	Technical Community
5	Beatrice Sigilai	Technical Community
6	Thomas Kaberi	Private Sector
7	Athena Morgan	Civil Society
8	David Indeje	Media
9	Andrew Limo	Media
10	John Walubengo	Academia/Media
11	Barrack Otieno	Technical
12	Medika Medi	Civil Society
13	Dr. Lucy Gichaga	Academia

ASSESSING INTERNET DEVELOPMENT IN KENYA

Using UNESCO's Internet Universality ROAM-X Indicators

"The global crisis linked to the COVID-19 pandemic underlines how crucial it is for our societies to have access to information and to the Internet in order to strengthen our resilience in the face of the multiple challenges facing humanity.

The present voluntary assessment report of Internet Universality Indicators in Kenya contributes, along with the reports in Benin and Senegal, to paving the way for similar assessments in other countries, notably in Africa. Its production is owed to the excellent work of The Kenya ICT Action Network (KICTANet), and to the fruitful engagement of the Multi-stakeholder Advisory Board.

It is my hope that the insights and recommendations contained in this report will trigger fruitful policy discussion on possible actions to be implemented, and thus contribute to highlighting the relevance of the principles of Internet Universality for sustainable development in Kenya."

Moez Chakchouk
Assistant Director-General for Communication and Information, UNESCO

"This report is a product of the efforts of a team of researchers, supported by a Multistakeholder Advisory Board (MAB), as well as a range of several stakeholders, who also participated in the validation meeting and contributed to the discussions on the KICTANet mailing list. The research team to whom we are truly grateful, worked on this report from September 2019, gathering and analysing data, seeking out comments from different stakeholders, incorporating feedback and finally, preparing the final report.

KICTANet considers this publication yet another milestone and hopes that it shall be a useful contribution to the development of sound policy, legal, regulatory and technical approaches and responses that shall ultimately promote the development of the ICT sector in Kenya."

Grace Githaiga and Victor Kapiyo
Lead Researchers, KICTANet

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