



OFFICE OF THE LEADER OF OPPOSITION

ALTERNATIVE MINISTERIAL POLICY STATEMENT

INFORMATION COMMUNICATION TECHNOLOGY AND NATIONAL GUIDANCE.

FY 2022/2023

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NATIONAL GUIDANCE.**

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TABLE OF CONTENTS

EXECUTIVE SUMMARY **Error! Bookmark not defined.**i

LIST OF ACRONYMS..... iii

CHAPTER 1: BACKGROUND TO ALTERNATIVE POLICY STATEMENT..... 1

 1.2 Sector Overview 1

CHAPTER 2: Budget Analysis of the sector 1

 2.1 Budget Allocation and Key outcomes2

Chapter 3. Emerging Sectoral Issues and Alternative Policies7

CHAPTER 4. Conclusion.....19

Executive Summary.

The sector has two votes namely; Vote 020 for MoICT and NG, and Vote 126 for NITA-U. The budget allocation for this FY2022/23 is 303.158bn representing 0.8% of the total national budget. Compared to last FY 2021/22 a total budget of 101.77bn was allocated to the sector which represented 0.3% of the total national budget allocation. Even though there is an increment of 0.5% to the sector, the funding gap of 242.55bn to the sector makes it grossly underfunded.

UCC was allocated the highest budget of 168.1bn (55%) of the total budget for the sector, the rest (45%) was shared by the remaining 5 agencies depicting the unfair distribution of resources. Besides, 8bn was not accounted for in the proposed budget allocations. There is a mismatch between the Ministerial policy statement targets and the targets as envisaged in the NDP III. For instance, the creation of 500,000 jobs in the ICT sector, increased access to the internet to 70% doesn't match what the Ministerial Policy statement targeted outcomes. The budget doesn't have measures for reducing the cost of ICT devices and services, reducing the cost of the internet from \$237 to \$70. It also doesn't take into account what NDP III envisages in reducing the cost of smartphones from Shs.100,000 to Shs.60,000. Unfortunately, the Ugandan-made SIMI smartphones cost between 100,000 to 300,000 at factory prices higher than what NDP III targets. There is no budget for operationalization of the UCC Tribunal in FY 2022/23 yet we continue experiencing a lack of press freedom due to the lack of the Tribunal.

In pursuit of its mandate, ICT Sector faces a number of challenges namely; high cost of end-user ICT Devices and Services, lack of UCC Tribunal leading to poor quality services, biased conduct of UCC, limited network coverage, ICT infrastructure, and inadequate ICT knowledge coupled with poor gadgets limits connectivity and ICT usage. We still face the problem of limited innovation capacity. Other challenges include; Increased cybercrime and cyberbullying.

Unfair competition among telecommunications companies in Uganda and restriction of press and media freedoms in the country.

In order to overcome such shortcomings, the government is put to the task of executing the following key alternative policies; Government should scrap the 30% tax (12% levy on the net price of internet data and VAT of 18%) on internet data levied since July 1, 2021. Fast track the process of laying underground internet infrastructure, enhance the budget for the sector from the current 0.8% of the national budget to at least 1% due to the importance of the sector to the development of this country. Let the Government funds for the creation of the UCC Tribunal. Restoring Facebook back to save businesses that were affected should be done immediately.

Otherwise, with the continued failure to have the UCC Tribunal in place, telecom companies and the aggrieved agencies and individuals will be forced to use expensive redress in courts of law. Telecommunications companies can exploit avenues of alternative Dispute Resolution (ADR) like Arbitration and negotiation. The government can also hire a consulting firm to resolve conflicts in the telecom industry. Amending ICT-related laws to keep pace with changes in technology would fight cybercrime. For the limited internet coverage, stimulation of demand for ICT devices and services would expand services to underserved areas.



LIST OF ACRONYMS AND ABBREVIATIONS

MoICT	Ministry of Information Communications and Technology
GDP	Gross Domestic Product
MDA	Ministries, Departments, and Agencies
MPS	Ministerial Policy Statements
NBI	National Back Bone Infrastructure
NITA-U	National Information Technology Authority
UBC	Uganda Broadcasting Corporation
UCC	Uganda Communications Commission
UPL	Uganda Post Limited
UBOS	Uganda Bureau of Statistics
MPS	Ministerial Policy Statement
UGX	Uganda shillings
SDG	Sustainable Development Goal
NBFP	National Budget Framework Paper
BTA	Botswana Telecommunication Authority
BTC	Botswana Telecommunications Corporation
GII	Global Innovation Index.

CHAPTER 1:

1.0 BACKGROUND TO ALTERNATIVE POLICY STATEMENT/ Legal Provisions.

The authority to present the alternative policy statement is derived from Rule 146 of the rules of procedure of the Parliament of Uganda, and section 6e of the administration of Parliament (Amendment) Act, 2006 which requires and empowers the various shadow ministers to present alternative policy statements on the floor of House for consideration and possible implementation.

1.2 Sector Overview

The Digital Transformation sector is a fulcrum of development with a huge potential of improving the country's national productivity by making government and business efficient, effective, and internationally competitive¹. ICT sector changes very fast requiring quick responses to keep pace with technological advances. Otherwise, this nation will continue experiencing challenges like limited network coverage, ICT Infrastructure, and poor gadgets. The high cost of ICT devices and services, rising rates of cybercrime and bullying, non-operationalization of the UCC Tribunal are associated with the bias within which UCC conducts its business. The government needs to amend section 7 of the UCC 2013 Act to reduce the powers of the minister of ICT, reduce taxes on ICT devices and services, and increase ICT penetration.

CHAPTER 2: Budget Analysis of the Sector.

The Information Communication Technology sector has two votes. Vote 020 caters for the Ministry of ICT and National Guidance whose mission is to have a knowledgeable and productive society driven by Information, Communication Technology, and National Ideology. Vote 126 belongs to the National Information

¹ NDP III

Technology Authority (NITA-U) whose mission is to create a technical and regulatory environment for the delivery of reliable and secure e-services in Uganda. The spending agencies under digital transformation include; the Uganda Communications Commission (UCC), Uganda Post Limited, Uganda Broadcasting Corporation (UBC), Uganda Institute of Information and Communications Technology (UICT). The sector policy and all activities are guided by the Sustainable Development Goal (SDG) 2030, Uganda Vision 2040, NDP III, and other planning guidelines and frameworks like program-based budgeting.

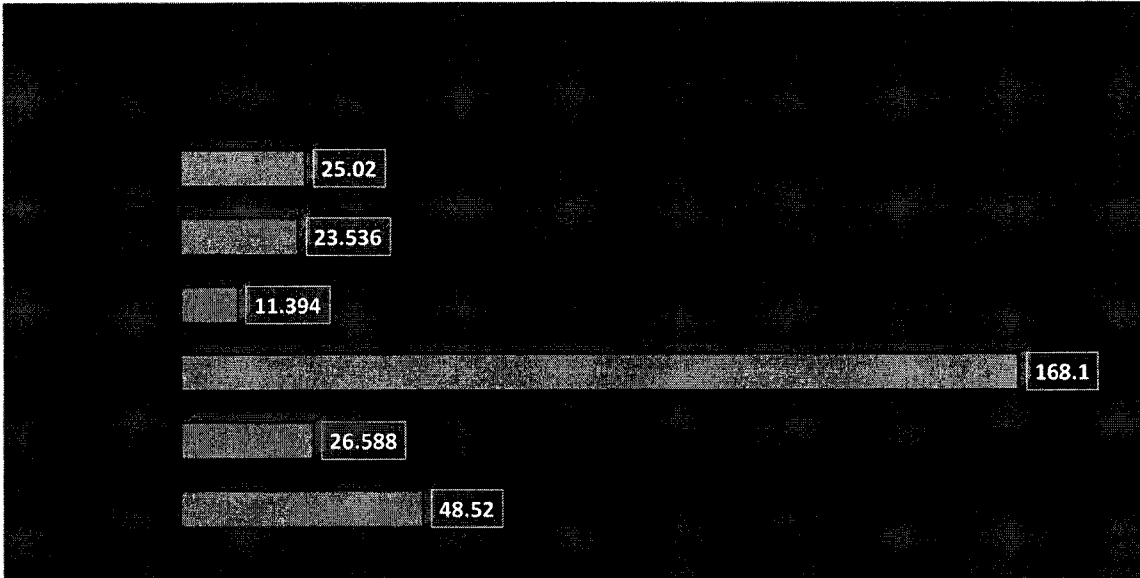
Despite the sector's centrality and potential of steering the economy of this country, the sector continues to be grossly underfunded with the reported funding of Ushs 242.55bn this financial year 2022/23². Perhaps it is the reason for the underperformance of the sector in areas of network coverage, service delivery, ICT knowledge, and skills and innovation capacity.

2.1 Budget Allocation and Key outcomes.

The total budget estimates for the ICT sector comprising of wage, on-wage Recurrent, Development, and non-Tax revenue (NTR) this financial year 2022/23 stands at 303.158bn allocated as shown in the figure below³;

² ICT Ministerial Policy Statement FY2022/23.

³ ICT Ministerial Policy Statement FY2022/23.



Source: Ministerial Policy Statement FY 2022/23.

The total of 303.158bn FY 2022/23 is allocated to the Information Communications Technology sector representing 0.8% of the total national budget⁴. This allocation is higher than last FY 2021/21 when the sector was given 101.77bn accounting for 0.3% of the national budget for the ICT sector⁵. Even though there is an increase of 0.5 % points in budget allocation to the sector, the increment is still small given the funding gap of Ush 242.55bn for the FY 2022/23. With the meagre resources given to the ICT sector and given the huge funding gap, chances are high that NDP III target of creating 500,000 jobs, increase access to internet to 70% will not be realised. Besides, the long overdue proposed formation of UCC Tribunal has no funds allocated for the in the FY2022/23.

There are reasons for worry given that last year's budget allocations were intended to increase ICT penetration and use of ICT services for social-economic development, reducing the cost of ICT devices and services, in addition to creating direct jobs which were never achieved.

⁴ NBFP 2022/23.

⁵ National Budget Framework Paper FY 2021/22.

2.2. Inappropriate allocation of funds.

UCC alone is taking 168.1bn which is more than half (55%) of the total budget allocated (303.158) to the Information Communication Technology sector. The rest of the five agencies (UBC, UICT, UPL, NITA-U, and MoICT) share the remaining 45% of the budget yet they are also important in the achievement of the targeted output. There is a need for equitable distribution of resources available. UCC is still unable to form the UCC tribunal that would assist it to achieve an effective legal and regulatory framework⁶.

2.3 The mismatch between the Ministerial policy statement's projected outcome and the performance targets for ICT infrastructure in NBFP 2022/23.

Increased coverage and access to ICT.

	2018	30%	50%	60%	70%	75%
Percentage of district headquarters connected to the NBI	2018	30%	50%	60%	70%	75%
Percentage of parishes with broadband connectivity	2018	65%	80%	85%	90%	95%

Source: NBFP 2022/23.

Whereas, the ministry specifies spending on the establishment of ICT labs and connectivity of schools to high-speed internet and UICT Centre of excellence⁷, the performance indicators in the NBFP 2022/23 performance targets indicators in

⁶ Ibid

⁷ Ibid

FY2022/23 as 50% connectivity of districts to NBI and 80% parishes with broadband connectivity.

2.4 The Ministerial Policy Statement didn't account for 8bn in the proposed budget⁸.

KPI/Output	Activity/intervention	target		
				Unaccounted for
School ICT labs and school connected to high-speed internet	Establishment of ICT labs and Connectivity of schools to high-speed internet	30		
UICT Centre of excellence	Type approval Laboratory			(8bn)missing

The Ministry budgeted 2.8bn for 30 ICT labs and connectivity of schools to high-speed internet and 5bn for UICT Centre of excellence totalling 7.8bn but instead presented 15.80bn leaving 8bn unaccounted for in the sub-total of ICT infrastructure.

⁸ Ibid

2.5 Huge funding gaps given the projected outcomes in the Ministry.

Funds allocated		Funding gap reported		Projected outcomes
Sector		Sector		
ICT & NG		Parish Development Model		1. Increasing ICT penetration. 2. Reducing the cost of ICT devices and services. 3. Enhanced efficiency and productivity in service delivery 4. Effective legal and regulatory framework. 5. Creating more jobs and increasing government services online. 6. Increased awareness and citizen participation in government programs.
		Digitalization and Innovation		
		Communication and Mindset change		
UBC		UBC - Signet		
UCC				
UICT		UICT Digital Literacy		
UPL		Posta-U		
		Business Processing Outsourcing (BPO)		
		Vision group support to revamp vernacular papers		
NITA-U		NITA-U		
Total	303.158bn		242.55bn	

Source: Ministerial Policy Statement FY 2022/23.

The funding gaps in the ICT sector reveal government failure to achieve the set goals in the sector. A greater percentage of the little funds allocated is recurrent expenditure on wages with very little or no funds for development expenditure. Thus realizing projected outcomes becomes quite difficult in a grossly

underfunded situation⁹. Meeting targets becomes questionable as long as there is a mismatch between funds allocated, funding gaps, proposed actions, and the targeted outcomes.

⁹ ICT Ministerial Policy Statement FY2022/23.

CHAPTER 3. Emerging Sectoral Issues and Alternative Policies.

3.1 High cost of end-user ICT devices and services. The Telecommunications industry in Uganda is one of the heavily taxed sectors¹⁰, with the current usage tax on pre-paid mobile services standing at 30 percent (18 percent and 12 percent excise duty) making it quite high by any standard. Added to this, is a universal service levy of 2% on top of the high company taxes¹¹. Mobile money customers are charged a direct tax of 0.5% on the value of mobile money withdrawal transactions¹². All these taxes are borne by the end-user either directly or indirectly. In effect, there is limited utilization of ICT services due to high prices. A study carried out by UNCDF to find out the impact of tax on digitalizing payments in agricultural value chains revealed that mobile money payments in these value chains became prohibitively expensive for payers and payees as a direct result of the tax¹³. Despite the affordability gaps, the government has maintained the taxes on phone and phone services high.

3.1.1 Reducing costs of end-user ICT devices and services by removing the taxes on ICT devices and services would reduce the costs of end-user ICT devices and services. In Africa, it is Uganda and Zambia that still charge taxes on the internet use. Low-cost devices and services generate higher benefits in form of additional increases in penetration and investment, generating further gains in the wider economy as demand increases. This justifies the trade-off between the two government's key agendas, of domestic tax revenue mobilization and financial

¹⁰ URA. Annual Revenue Performance Report FY 2019/2020.

¹¹ Research ICT Africa 2019. The state of ICT in Uganda. Located at: https://researchictafrica.net/wp/wp-content/uploads/2019/05/2019_After-Access-The-State-of-ICT-in-Uganda.pdf. Accessed on 23rd/02/2022.

¹².[https://www.africanews.com/2018/05/31/uganda-s-parliament-approves-social-media-and-mobile-money-taxes//](https://www.africanews.com/2018/05/31/uganda-s-parliament-approves-social-media-and-mobile-money-taxes/)

¹³ United Nations Capital Development Fund, 'Learnings from the Field: Digitizing payments in agricultural value chains in Uganda', UNCDF, Kampala, 16 October 2018, <https://www.uncdf.org/article/4000/learnings-from-the-field-digitizing-payments-in-agricultural-value-chainsin-uganda>, accessed 19 October 2021.

inclusion through the digitalization of the economy. Eliminating withholding tax on income from mobile services would reduce the tax burden on operators, leading to lower prices of mobile services and greater investment into mobile networks.

3.1.2 Provide tax exemptions to Telecom-related industries to lower their costs of production. Tax exemption should be given to Importers and retailers of low-cost phone devices to make them affordable. This policy encourages dealers to decrease prices across the handset market in order to qualify for tax exemption. The telecom companies can maximize profits with a sales maximization motive following reduced prices¹⁴.

3.1.3 Adopt import substitution strategy as a way of promoting the phones made in Uganda. Make the homemade phones affordable and readily available compared to the expensive taxed phones.

3.1.4 Amend the data Consumer protection policy to include clauses that compel service providers to warn consumers of the dangers, after effects, costs of using phones and phone services. This consumer protection policy is used on cigarette and alcohol companies where consumers are warned of the dangers of smoking. The same applies to alcoholic drinks where companies are compelled to write alcohol content on the containers as well as warn consumers of the after-effects of taking alcohol. The policy should compel UCC to devise means of compelling service providers to sensitize the general public about data usage. Often a time's mobile phone users don't disable the automatic upgrades on their phones. Warning consumers that the installed applications keep running in the background without the customers' knowledge can save their data. Otherwise, data will remain high and wasted in APPs upgrades that are not frequently used.

¹⁴ Uganda Communications Commission 2020. Consumer rights
at: <https://www.ucc.co.ug/consumer-rights/> accessed on 21st/02/2022.

3.2 Failure to form the UCC Tribunal. It's now 25 years since UCC Tribunal was first provided for in the repealed 1997 Communications Act and in the UCC Act 2013. It is clear that the operationalization of the tribunal is long overdue. The call for comments on the draft UCC regulations¹⁵ was issued on the 27th Jan 2021 by the Ministry of ICT, and for more than a year now, the final regulation is not out. The long delay in establishing the tribunal has limited the ability of the aggrieved citizens, the media, and telecom service providers to expeditiously contest some of UCC's and the Ministry's pronouncements¹⁶. Secondly, the composition of the proposed tribunal which includes a High Court judge and two people appointed by the president, as well as technical advisers appointed by the ICT minister undermines its impartiality, particularly with the appointment of the members by the government¹⁷. Experience has shown that persons appointed by the Minister or the president tend to be inclined to promote their interests in the execution of their mandate which curtails freedom of expression and speech¹⁸.

Alternative policies.

The speed at which ICT changes makes disputes inevitable as new by-products, new interests clash with traditional ones. Policymakers and regulators should recognize effective dispute resolution as an important role of telecommunication policy and regulation without which the country will delay the introduction of new services and infrastructure, block or reduce the flow of capital from investors, limit competition leading to higher pricing and lower service quality and generally retard liberalization that comes with economic, social and technical development.

¹⁵ Ministry of ICT 2021. Call for Comments- on –the- draft UCC- Tribunal- Regulations -2020.

¹⁶ Law, Democracy & Development 2021. Regulator or Controller: A five –year analysis of the cat and mouse games between the Uganda Communications Commission and broadcasters in Uganda.

¹⁷ Collaboration on International ICT Policy for East and Southern Africa (CIPESA) 2021, Uganda Communications Tribunal: Regulations fall short of constituting an impartial Arbiter.

¹⁸ Law, Democracy & Development 2021. Regulator or Controller: A five –year analysis of the cat and mouse games between the Uganda Communications Commission and broadcasters in Uganda.

Uganda can officially make available various conflict resolution mechanisms given the differing conflicts requiring dispute resolution approaches. There are disputes related to liberalization, investment, interconnection disputes, between service providers, disputes between regulators and service providers, consumer disputes, disputes related to international trade, and radiofrequency requiring specialized approaches. Below are the proposed policy alternatives to the failed operationalization of the UCC Tribunal¹⁹;

3.2.1 Court adjudication

This remains the final recourse of many types of disputes especially those that are less policy related. However, this approach has high costs and delays and a lack of telecommunications-specific expertise to preside over the complex telecom industry disputes. This type should be used in case government finds it so difficult to operationalize UCC Tribunal without any more delay.

3.2.2 Alternative dispute resolution (ADR) policy.

In the absence of formal conflict resolution approaches, less formal means of dispute resolution like negotiation, mediation and arbitration can be used;

3.2.2.1 *Negotiation and mediation where parties are encouraged to identify common interests for "win-win" solutions. UCC should require the warring parties to try negotiation or mediation before bringing their disputes to the regulator.*

3.2.2.2 *Arbitration can be used where the warring parties settle their grievances with the help of appointed arbitrators. This is good for the disputing parties as they retain confidentiality, control over the design of the process, and determine the speed at which the process proceeds, in the case of international arbitration neutrality of the forum is assured compared to the local courts of law.*

3.2.3 Hire a Consulting Firm to resolve conflicts.

¹⁹ International Telecommunication Union (ITU). The World Bank – Geneva, 2004 located at; https://www.itu.int/ITU-D/treg/publications/ITU_WB_Dispute_Res-E.pdf accessed on 26th/03/2022.

Given the technical nature of the Telecom industry, UCC can supplement its staff resources by hiring a reputable international firm with experience in conflict resolution in the telecom industry, the way Botswana Telecommunications Authority (BTA) did in 1999 in a dispute between Botswana Telecommunications Corporation (BTC) and the two major operators in Botswana, Mascom Wireless and Vista Cellura (BTA Ruling NO.1 of 1999).

Emerging issue.

3. 3. The Biased conduct of UCC. On several occasions, UCC has displayed bias in the execution of its mandate. UCC was given excessive powers to receive, investigate and arbitrate complaints relating to communications services and take necessary actions²⁰. For instance, in June 2018, Oct 2021, UCC warned broadcasters against discussing certain topics²¹. Recently, in January 2021, during the general elections, Government through UCC ordered an internet shutdown, blockage of social media sites, Wrote to Google to block 14 YouTube channels over allegations of broadcasting information that compromised national security²². In view of the above, UCC is viewed as a complainant, a prosecutor, and a judge in the same dispute. This is made worse by the delay and failure to establish the proposed UCC Tribunal meant to handle communications disputes²³.

Alternative policy.

3.3.1 Make amendments to the UCC Act, 2013. Amend Section 93(1) that gives excessive powers to the Minister to make regulations governing the broadcasting sector without the approval of parliament. There is a need to avoid a repeat of what happened in 2017 when despite parliament's motion to extend the deadline

²⁰ Section 5 (j). UCC Act, 2013.

²¹ Collaboration on International ICT Policy for East and Southern Africa (CIPESA) 2021, Uganda Communications Tribunal: Regulations fall short of constituting an impartial Arbiter.

²² <https://acme-ug.org/2019/02/08/ucc-threatens-to-shut-down-monitor-website/>

²³ UCC Act, 2013. Section 60 of the UCC Act.

for SIM card registration, the Minister went ahead and directed UCC to switch off all unverified cards²⁴. This came about because, in 2017, parliament had passed the UCC (Amendment) Bill, 2016 which amended section 93(1) of the 2013 UCC Act that eliminated the checks and balances on the ICT Minister's powers when the requirement for parliamentary approval of regulations proposed by the ICT Ministry was removed.

Emerging Issue.

3.4 Increased Cybercrime and Cyberbullying in the country. There is a growing trend of cybercrime in Uganda²⁵ in the form of fraud, child pornography, and violation of privacy in the country²⁶. Some people have become victims of Cyberbullying which has caused a lot of embarrassment or humiliation²⁷. Cybercriminals have robbed people's money, in 2020 alone, hackers used around 2,000 mobile SIM cards to gain access to the mobile money payment system²⁸. It is reported, Shs 15bn was lost through cyber fraud in 2020 alone²⁹. In the following year, 2021 a total of 256 cases of cybercrime were reported compared to 248 cases in 2020, giving rise to a 3.2% increase in cyber criminality in the country³⁰. In 2020 alone, the cybercrime desk coordinated 221 cases of Hi-tech international and economic crimes that led to a loss of USD 4,041,474.68³¹. Unless checked, cybercrime will continue causing a lot of financial loss.

²⁴ Ibid

²⁵ Uganda Police Force 2021. Annual crime report 2020-1.

²⁶ Ibid

²⁷ Ibid

²⁸ Ibid

²⁹ Ibid

³⁰ Ibid

³¹ Ibid

3.4.1 Amend ICT-related laws to make them relevant. Technology changes very fast³², and so is the need to amend the Computer Misuse Act, 2011, the Data Protection & Privacy Act, 2019, Uganda Communication Act, 2013 together with Communications (Practice and Procedure) regulation, 2005. Amend sections relating to personal and family protection, secondly cyber security for smartphones, thirdly, amend areas relating to protecting vital infrastructure, and lastly areas for strict government regulation and monitoring of cyber activities.

3.4.2 Develop the capacity of the Department of Forensics. This can be done by upgrading the Uganda Police department of forensics with the required skills and equipment to carry out cybercrime investigations to a conclusive end. This will enable the state to make the culprits accountable for their misdeeds.

3.4.3 A deliberate recruitment policy in Uganda Police Force. Police human resource department should recruit and train more experts and periodically upgrade their skills, especially in areas of Ballistic, Handwriting, Cyber forensics, and other areas of expertise. This is to enable it to apply scientific techniques in the prevention when carrying out investigation and detection of cybercrime.

3.4.4 The police force should create the Internet Crime Complaint Centre to collect reports of internet-related crimes from the public.

Emerging issue

3.5 Limited Network Coverage, ICT infrastructure, and poor gadgets limiting connectivity. With the optic fiber network of 12,000 km covering only 49 percent of the districts and 24 percent of the sub-counties in Uganda, its broadband infrastructure is significantly poor quality³³. Poor quality terminal equipment and local Area Networks (LANs) worsen the uptake of services of some MDAs/LGs³⁴.No

³² United Nations Conference on Trade & Development 2020. The Impact of rapid Technological Change on Sustainable Development.

³³ National Planning Authority 2020 NDP III.

³⁴ Ibid

wonder Uganda is the third least-connected country after Rwanda and Mozambique³⁵. About 98% of the people are connected to 2G while 89% are connected to 3G networks and only 47% of the people are connected to 4G network technology³⁶. About a third (30%) of the urban dwellers use the internet in Uganda while only nine (9%) of Ugandans living in rural areas have access to the internet³⁷. While the government rolled out the Last Mile Connectivity Project to expand the NBI through laying 732km of fiber optic cable, adding more 700 sites to the NBI with more additional 300 Wi-Fi Hotspots, lack of electricity is responsible for the poor urban-rural internet use and mobile penetration rates in Uganda. Only 18% of the households in Uganda have an electricity connection³⁸.

By June 2021, the total number of smartphone/internet-enabled gadgets connected to networks stood at 9.7 million gadgets, while the feature phones and basic phones connected to the network were 22.4 million gadgets in Uganda³⁹. With less than half of the population owning phones⁴⁰, the majority of the phones can only support basic browsing applications leaving a huge gap in harnessing the potential for mobile broadband connectivity⁴¹. Unfortunately, UBC under Signal Network Limited (SIGNET) which is mandated to steer the country's digital migration from 56 percent to 95 percent as required in the NDP III is not well funded⁴².

Alternative policies.

³⁵ The state of ICT in Uganda 2019. Research ICT Africa.

³⁶ Uganda Bureau of Statistics 2021 statistical Abstract.

³⁷ The state of ICT in Uganda 2019. Research ICT Africa.

³⁸ *ibid*

³⁹ *ibid*

⁴⁰ *ibid*

⁴¹ Uganda Communications Commission 2021. Market Performance Report 2021.

⁴² Information Communication Technology 2021. Semi-Annual Monitoring Report FY 2020/21.

3.5.1 Fast-track rural electrification in the country. To Improve ICT penetration as proposed by NPA⁴³, there is a need to actualize rural electrification strategy and plan 2013-2022⁴⁴.

3.5.2 Promote Demand stimulation of ICT Devices and services. This is paramount in steering progress in ICT device usage and services. This can be achieved by shifting people from passive consumers to productive consumers of ICT devices and services. Develop wider skillsets to improve entrepreneurship application of ICT services that creates jobs. In addition to affordable digital devices and lower prices of data, demand stimulation can be a game-changer in the digital world.

3.5.3 Enforce the use of ICT services in the country. Digital transformation can be supported by introducing and enforcing the use of digital (smart) health, digital (smart) agriculture, digital (smart) manufacturing, digital (smart) cities, online studies, to complement the already existing e-government online service delivery.

3.6 Unfair Competition among Telecommunications operators.

The UCC Act (Cap 106) ended the monopoly of Uganda Telecom Limited (UTL) giving rise to the liberalization of the ICT sector. However, the telecommunication sector remains highly concentrated with two big companies namely MTN and Airtel both combined taking up 82% of the Ugandan market, with Airtel share standing at 45% and MTN at 37% of the total mobile subscriptions⁴⁵. UTL has a market share of 8% in the country. Monopolistic, and duopoly markets lead to shortcomings like poor service delivery, high prices in addition to limited choice. The dominance Of a few firms block new entrants and makes other operators

⁴³ National Planning Authority 2020. Third National Development Plan (NDP III) 2020/21-2024/25

⁴⁴ Rural Electrification Strategy and Plan 2013-2022.

⁴⁵ Research ICT Africa 2019. The state of ICT in Uganda. Located at: https://researchictafrica.net/wp/wp-content/uploads/2019/05/2019_After-Access-The-State-of-ICT-in-Uganda.pdf. Accessed on 23rd/02/2022.

remain marginal, in addition to forcing some to leave the industry like Vodacom and K2, and Africell⁴⁶.

Alternative policies.

3.6.1 The unfair completion is made unbearable in the absence of the UCC Tribunal whose mandate was intended to address challenging issues players in the ICT industry face. So the alternative policies given for lack of a Tribunal would solve unfair competition among the competing firms.

3.7 Restriction of Press and Media⁴⁷.

The government through UCC continues to restrict the press and media in favour of the ruling party and against the opposition parties, especially during election time. The UPF's Media and Political Crimes Unit and the communications regulator Uganda Communications Commission closely monitors all radio, television, and print media. This is in total violation of freedom of expression enshrined in the constitution. During the election period, the government restricted and disrupted access to the internet, censored online content, and monitored internet communications without appropriate legal authority in addition to punishing internet users who expressed divergent political views. UPF officers arrested journalists for hosting opposition politicians on radio stations.

Alternative policies.

3.7.1 Alternative for 3.2 above would solve the partisan bias of public statutory bodies like UBC, UCC and UPF who act in total disrespect of media freedoms.

⁴⁶ Research ICT Africa 2019. The state of ICT in Uganda. Located at: https://researchictafrica.net/wp/wp-content/uploads/2019/05/2019_After-Access-The-State-of-ICT-in-Uganda.pdf. Accessed on 23rd/02/2022.

⁴⁷ Uganda human rights report 2020.

***NB.** While Innovation Technology Development and Transfer Sector is a standalone sector, it has been incorporated with the ICT sector due to the fact that innovation and the ICT sector are closely related.*

EMERGING ISSUES FOR INNOVATION, TECHNOLOGY DEVELOPMENT & TRANSFER SECTOR.

3.8 Poor performance of the sector.

Science and Technology require heavy investment but unfortunately, Uganda has not invested adequately to develop the sector⁴⁸. Uganda's Gross Domestic Product expenditure on R&D is 0.7 which is low. This meagre expenditure puts its score low at the international level. The Global Innovation Index (GII) ranks Uganda at 119 out of 132 countries, compared to Kenya, Rwanda, and Tanzania ranked at 85, 102 and 90, respectively⁴⁹. The current GI score deviates so much from the targeted GI score of 31 by NDP III projections for the FY2022/23. As a result, out of the expected 282 ICT innovation products developed and commercialised only 72 had been achieved by Uganda by 2020⁵⁰.

Key NDP III under Science Technology Research & Development outcome indicators.

Indicators	Baseline FY2017/18	Targets				
		2021/23	2021/22		2023/24	2024/25
Global Innovation Index (%)	25.32	27.00	29.00		33.00	35
Gross Expenditure on R&D (GERD) as a % of GDP	0.4	0.5	0.6		0.8	1.0

⁴⁸ National Planning Authority 2020.NDP III 2020/21-2024/25.

⁴⁹Global Innovation Index2021.14thEdition.located at https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021_exec.pdf accessed on 24th/03/2022.

⁵⁰ National Planning Authority 2020.NDP III 2020/21-2024/25

Source: NDP III Innovation, Technology Development and Transfer Programme Implementation Action Plan 2020.

Alternative policy.

3.8.1 Introduce an innovation tax whose proceedings should be pooled into an innovation fund purposely created for investment in science and technology. The pooled funds from the innovation tax added to other sources be it domestic or foreign can raise the required and projected Gross expenditure on Research and Development as a percentage of GDP envisaged in NDP III.

3.8.2 The innovation tax can also become an incentive for local produce to get market if that tax mainly targets imported goods that we can produce locally in the country. The increased citizens' demand for local produce will encourage local production.

Emerging Issue.

3.9 High innovation failure rate.

According to the Auditor-Generals 2021/22 report, 450 (88%) out of 512 government-funded projects at MUK, Kyambogo, and Busitema Universities were not completed. Similarly, 218 (62.3%) out of 350 Donor funded grants from 4 Universities were not completed in time. The rate of turning innovations into tangible outputs with the economic impact on development is worryingly low⁵¹. A few completed funded innovation projects delay so much so that accounting for funds spent is a problem⁵².

Alternative policy.

3.9.1 Embark on a comprehensive program of supporting indigenous technology.

⁵¹ Ibid

⁵² Auditor General's Report FY 2021/22.

Support emerging local innovators who are already at some stage so that they can do better. The numerous indigenous skillsets together with the local available cheap resources can easily be upgraded to our comparative advantage. The funds are directed towards what we can do best, first to national and next to acceptable international standards. This should be supported by Buy Uganda Build Uganda (BUBU) for an assured market for local innovations the way China targeted indigenous innovation and offered the technology innovators a massive assured domestic market which made it develop technologically. Identify and commit resources to the production of goods where the country has a comparative advantage. Herbal medicine could be one of them, agriculture, and ICT.

Chapter 4. Conclusion.

The Digital Transformation sector is central in virtually all social economic and political activities of our daily lives. It is therefore a fulcrum of development deserving the attention of all concerned. There is an urgent need to allocate enough resources to the sector. For inclusiveness, make the devices and services affordable by reducing the numerous taxes imposed in the sector. Dispute resolution is crucial in a fast-moving developing sector, the formation of the UCC Tribunal is long overdue to address the numerous challenges in the sector. Most of the issues affecting the sector seem to rotate around lack of arbitration, negotiation to resolve issues in the sector.