



DIGITAL TRANSFORMATION PROGRAMME

Annual Budget Monitoring Report

Financial Year 2023/24

October 2024

Budget Monitoring and Accountability Unit
Ministry of Finance, Planning and Economic Development
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ACRONYMS AND ABBREVIATIONS

4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
AR	Augmented Reality
BFP	Budget Framework Paper
BPO	Business Process Outsourcing
BMAU	Budget Monitoring and Accountability Unit
CERT	Computer Emergency Response Team
COVID-19	Coronavirus Disease - 2019
DC	Data Centre
DLG	District Local Government
DNS	Domain Name Server
DT	Digital Transformation
DTT/DTH	Digital Terrestrial Television/Direct-to-Home
EMIS	Education Management Information System
EDRMIS	Electronic Document and Records Management Information System
E-GP	Electronic Government Procurement
ERP	Enterprise Resource Planning
ESA	Enterprise Security Architecture
ETA	Electronic Transactions Act
FIA	Financial Intelligence Authority
FOSS	Free and Open-Source Software
GAMIS	Government Assets Management Information System
GB	Giga Byte
GCIC	Government Citizens Interaction Centre
DGP	Gross Domestic Product
GoU	Government of Uganda
GOVNET	Government Networks
IAC	Information Access Centre
ICT	Information, Communications Technology
ICTAU	Information Communications Technology Association of Uganda
IFMS	Integrated Financial Management System
iHMIS	Integrated Health Management Information System
IPPS	Integrated Payroll and Pension System
ISO	International Standards Organisation
ITES	Information Technology Enabled Services
ITU	International Telecommunication Union
IXP	Internet Exchange Point
LG	Local Government
MALGs	Ministries, Agencies, Local Governments
MBPS	Mega Byte Per Second
MBSA	Microsoft Business and Services Agreement
MDAs	Ministries, Departments and Agencies
MoICT&NG	Ministry of Information, Communications Technology and National Guidance



MoU	Memorandum of Understanding
NBI	National Backbone Infrastructure
NDC	National Data Centre
NDP III	Third National Development Plan
NEMA	National Environment Management Authority
NISF	National Information Security Framework
NITA-U	National Information and Technology Authority
NOC	Network Operating Centre
ODeL	Open distance and e-learning
OFC	Optic Fibre Cable
PDMIS	Parish Development Model Management Information System
PBS	Programme Budgeting System
PWG	Programme Working Group
RCIP	Regional Communication Infrastructure Programme
SG	Solicitor General
SIGNET	Signal Network Limited
SLA	Service Level Agreement
SMS	Short Messaging System
SOPs	Standard Operating Procedures
ToRs	Terms of Reference
TV	Television
UBC	Uganda Broadcasting Corporation
UCC	Uganda Communications Commission
UDAP	Uganda Digital Acceleration Project
Ug shs	Uganda Shillings
UICT	Uganda Institute of Information Communication Technology
UMC	Uganda Media Centre
UMCS	Unified Messaging Collaboration System
UPL	Uganda Posts Limited
US\$	United States Dollar
UTCL	Uganda Telecommunications Company Limited
VR	Virtual Reality
Wi-Fi	Wireless (Internet)



FOREWORD

At the start of the Financial Year 2023/24, the Government of Uganda outlined strategies to restore the economy back to the medium -term growth path and improve competitiveness. The strategic interventions that were prioritized under various programmes included: roads under Integrated Transport; electricity under the Sustainable Energy Development; irrigation under Agro-Industrialization; Industrial parks under Manufacturing; support to medical schools and science-based research and development under Human Capital Development; as well as oil and gas among others.

Annual programme assessments have been made, and it has been established that performance was fairly good. This implies that programmes are on track, but with a lot of improvements required. To that effect, I urge you to critically review the findings of the performance reports with a view to improving effectiveness in implementation of activities going forward. These monitoring findings form a very important building block upon which programmes can commence the reflective exercises.

The government has embarked on the 10-fold growth strategy that demands for enhanced efficiency and effectiveness within programmes. We cannot afford to have fair performance scores hence forth, as this will jeopardize the prospects of doubling the economic growth rates in the medium term.

Ramathan Ggoobi

Permanent Secretary/ Secretary to the Treasury



EXECUTIVE SUMMARY

The Digital Transformation (DT) Programme seeks to increase Information and Communication Technology (ICT) penetration, and use of ICT services for social and economic development. The Ministry of Information, Communication Technology and National Guidance (MoICT&NG) plays the lead and coordination role of the programme activities. The other implementation partners are: National Information Technology Authority (NITA-U), Uganda Institute of Communication Technology (UICT), Uganda Communications Commission (UCC), and Posta Uganda.

The DT Programme interventions are implemented under four sub-programmes: Enabling Environment; Research, Innovation and ICT Skills Development; ICT Infrastructure; and e-Services. This section provides key performance highlights for the period 1st July 2023 to 30th June 2024.

Overall Performance

The programme approved budget for FY2023/24 was Ug shs 247.8 billion (bn) which was revised upwards to Ug shs 295.2bn. A total of Ug shs 187.12bn (63.4%) was released and Ug shs 185.34bn (99%) spent by 30th June 2024. The release was good and expenditure was very good. Although NITA-U had the biggest budget, the release was poor (33.5%). This was attributed to the low and inadequate release of the external financing under the Uganda Digital Acceleration Project (UDAP) arising from failure to meet the conditions precedent to disbursement.

The overall physical performance of the Digital Transformation programme was good at 76.05% with all the sub programmes registering good performance. There was an increase in the proportion of Government services online, fixed broad band connectivity, national broad band coverage with a minimum speed of 8Mbps, and proportion of licensees adhering to requirements. There was also a reduction in the Unit cost of 1Mbps/month of internet from USD 75 in FY2022/23 to USD 35 in FY2023/24. The Radio signal coverage stagnated at 90%. The target for the number of Legal and regulatory framework in place, and the ICT contribution to GDP was not achieved.

ICT Infrastructure Sub-programme

The sub programme performance was good at 77.7%. By 30th June 2024, the postcodes were updated for the seventeen Cities, Municipalities, and Districts. The first draft of the standards for delivery of e-services through postal outlets was developed. The MoICT&NG provided oversight in the implementation of Phase V of the National Backbone Infrastructure.

The E-waste policy and guidelines were presented to Cabinet. The E-waste extended producer regulations scoping report was developed and the E-waste Strategy was disseminated. In addition, the interoperability framework was operationalised and rolled out to five entities as planned.

The first draft framework for coordinated rollout of ICT infrastructure and services was developed. The project profile and pre-feasibility study report for an interconnection and digitisation programme for People with Disabilities (PWDs) was developed. An additional thirty-nine new applications were hosted in the National Data Centre (NDC) bringing the cumulative total hosted in the NDC to 305.

The National Backbone Infrastructure (NBI) was extended to 101 sites of Ministries Departments and Agencies (MDAs) and other target user groups. The number of sites connected to the NBI



increased to 1,567 with 86% of these utilizing services over the backbone. Seventy-seven of the new sites were for Uganda Telecommunication Ltd (UTL) that were provided with fibre optic links. All the planned activities under the Government Network (GOVNET) project registered minimal progress. The activities were at varying stages of procurement following the delayed disbursement of funds by the World Bank.

The regulations to implement the Information and Communications Bill 2022 were not developed as planned. Licenses were acquired for the roll out of the Unified Messaging and Collaboration Services (UMCS) to an additional 20 Ministries, Agencies, Local Governments (MALGs) and Parishes. The upgrade of the existing National Data Centre (NDC) was not undertaken. The Metropolitan Area Network Centre upgrade and the development of the regulation for Information and Communications Bill, 2022 were not undertaken due to resource constraints.

E-services Sub-programme

The sub programme registered good performance at 82.4%. The output of the Parish Development Model (PDM) operations had very good performance while cyber security was fair. The Unified Messaging and Collaboration System (UMCS) was rolled out to nine entities. Thus, a cumulative total of 147 entities are on board with 29,307 active users out of the 32,998 issued licenses. Although the UMCS was rolled out, most of the Local Governments, Regional Referral Hospitals and some Central Government Ministries were not using the email system.

Six websites were developed and five were revamped with majority being from the Local Governments (LGs) and training institutes. This brought the website domains supported by NITA-U to 539. Ten Business Process Outsourcing (BPO) centres were supported through provision of subsidized internet and technical support. The supported BPOs were expected to create 286 ICT related jobs. Twenty-one public and private entities were integrated onto the Whole-of-Government integration and data sharing platform and the UGPass was rolled out to two additional entities.

M/s B-SMART Technology limited was on boarded to develop the IT/BPO park in Entebbe under a Public Private Partnership (PPP).

The PDM Financial Inclusion Module and the Registration Module of the Parish Development Model Information System (PDMIS) were operationalised with user trainings and user manuals printed and disseminated. The terms of reference for the infrastructure and economic services module of the PDMIS were developed. The *Bank Wendi* application was also operationalised to enable beneficiaries receive funds on their mobile money wallet. The PDM laptops were configured and distributed to selected 170 Local Governments with support from the Ministry of Local Government.

Thirty-six Computer Emergency Response Team (CERT) advisories and alerts targeting proactive defence against cyber-attacks and thirty-two information security awareness' campaigns were conducted. These are aimed at improving the information security hygiene in the public.

Research, Innovation and ICT Skills Development Sub-programme

The sub programme performance was good at 72.8%. The development of the National ICT Intellectual Property guidelines, and the National Business Process Outsourcing (BPO) implementation strategy were finalised pending approval. A baseline survey on the existing BPO companies and the development of a BPO companies' database were ongoing. The Electronic Document and Records Management System (EDRMS) source codes were acquired and the



system was operating in three MDAs. The design, development, and deployment of the Government Assets Management Information System (GAMIS) for MoFPED was not done due to budget constraints.

The Uganda Institute of Information Technology (UICT)-Nakawa admitted 80 Government-sponsored students through the Joint Admission Board (JAB) for the 2023-24 cohort. This brought the total number of Government sponsored students at the institute to 1,325. A grant offer for development of Virtual Reality (VR) centre was approved by the Office of the Solicitor General. The funds were disbursed to MoICT&NG and the counterpart funding to EON Reality Inc as per the Grant Agreement.

The Augmented Reality/Virtual Reality (AR/VR) knowledge transfer and capacity-building activities were completed for lead administrators, selected trainers of trainers, and academic champions. The procurement for civil works for the AR/VR Centre, structural cabling, installation, and supply of computers and AR/VR content development was pending clearance from the Office of the Solicitor General.

An innovator coaching scheme with Microfuse Computer Technologies was developed and three innovations were supported to commercialize. The UICT conducted 33 fourth Industrial Revolution (4IR) events in collaboration with other stakeholders, through digital skilling, meetups, and boot camps. In addition, 13 capacity-building and knowledge transfer activities were undertaken, including internship collaboration with MTN Foundation for MTN-Ace digital skilling program and matching with in-house founders and innovators.

The content for five new long-term programs curricula was designed, and approved by the Academic Board of the UICT. In addition, 807 government officers were trained in ICT-related short courses. A total of 733 participants were trained in applied research and innovation. Forty (40) innovators were hosted at the National ICT Innovation Hub. The appreciation and uptake of a Meeting App called “CAUCUS” remained low and was mostly used internally by UICT.

Enabling Environment Sub-programme

During the FY2023/24, the sub programme performance was good at 71.3%. The output of administration and support services posted very good performance and that of Legal and Advisory Services performed poorly. Local insertion equipment was acquired for Mbale, Kabarole and Mbarara transmission sites of the National Backbone Infrastructure. This was aimed at upgrading the existing transmission sites to ensure redundancy and provision of local regional program stream insertions.

Six field visits were carried out in Soroti, Kasese, Oyam, Kabale, Arua and Mbale to monitor and launch the ICT Hubs. Forty-eight innovators at the Nakawa innovation hub were profiled. A total of 1,187 organisations collecting Ugandan citizens and residents’ personal data were registered. The MoICT&NG also supported the development of BPO, communications, and national guidance policies.

In a bid to improve awareness of personal data protection and privacy regulations, one hundred ten (110) sensitization events were conducted in both the public and private sectors. Five staff were enrolled on cyber security related courses. An assessment of the birth, death, and adoption registration system at the National Identification and Registration Authority (NIRA) was conducted. The NITA-U undertook Unified Messaging and Collaboration System (UMCS) user



satisfaction survey. A monitoring visit to the youth start up academy at Hive Colab was undertaken to assess the impact of the NITA-U support to the project.

Conclusion

In the effort to increase penetration and use of ICT services, the Digital Transformation Programme upgraded the existing and connected new transmission sites to the NBI. Additionally, through the UICT and partners, a number of skilling; coaching; and innovation-based trainings were developed and implemented.

The guidelines for the National ICT intellectual property were finalised and the National Business Process Outsourcing (BPO) implementation strategy was developed. The E-waste policy and guidelines were presented to Cabinet and the E-waste Strategy was disseminated.

The Financial Inclusion Module and the Registration Module of the PDMIS were rolled out. The UMCS was rolled out to nine additional entities, six websites were developed and twenty-one public and private entities were integrated onto the Whole of Government platform. The misaligned programme outcome indicators and targets make the assessment progress on difficult.

The delayed funding for the UDAP affected the establishment of ICT infrastructure including the third data centre; and connection of new sites to the NBI. Additionally, the limited prioritisation for research and innovation; inadequate infrastructure to support specialized ICT training especially at the UICT; and the understaffing at the NITA-U affected the delivery of ICT services.

Recommendations

1. The NITA-U should fast-track the conditions precedent to release of external financing to facilitate effective take off of the UDAP project.
2. The DT Programme Working Group should support the NITA-U to acquire more physical space for storage infrastructure at the data centre.
3. The MoICT&NG should support the UICT to establish the required infrastructure such as lecture rooms, equipment and staff to facilitate specialized ICT training.
4. The MoICT&NG and NITA-U should ensure that the UMCS is used in institutions where it was rolled out rather than using personal and private emails for government business.



CHAPTER 1: INTRODUCTION

1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “*To formulate sound economic policies, maximize revenue mobilization, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development.*”

The MFPED through the Budget Monitoring and Accountability Unit (BMAU) tracks the implementation of programmes/projects by observing how values of different financial and physical indicators change over time against stated goals, indicators and targets. The BMAU work is aligned with budget execution, accountability, and service delivery.

With effect from FY 2021/22, the BMAU began undertaking Programme-Based Monitoring to assess performance against targets and outcomes in the Programme Implementation Action Plans (PIAPs)/Ministerial Policy Statements. The Semi-annual and Annual field monitoring of Government programmes and projects is undertaken to verify receipt and expenditure of funds by the user entities and beneficiaries, the outputs and intermediate outcomes achieved, and the level of gender and equity compliance in the budget execution processes. The monitoring also reviews the level of cohesion between sub-programmes and identifies implementation challenges.

The monitoring covers the following Programmes: Agro-Industrialization; Community Mobilisation and Mindset Change; Digital Transformation; Human Capital Development; Innovation, Technology Development and Transfer; Integrated Transport Infrastructure and Services; Mineral Development; Natural Resources, Environment, Climate Change, Land and Water Management; Public Sector Transformation; Private Sector Development; Sustainable Development of Petroleum Resources; and Sustainable Energy Development.

This report presents findings from monitoring the Digital Transformation Programme for the budget execution period from 1st July 2023 to 30th June 2024.

1.2 Programme Goal and Objectives

The Digital Transformation Programme is envisaged to increase ICT penetration and use of ICT services for social and economic development. The objectives of this programme as laid out in the NDP III are to:

- i) Increase the national ICT infrastructure coverage;
- ii) Enhance usage of ICT in national development and service delivery;
- iii) Promote ICT research, innovation and commercialization of indigenous knowledge products;
- iv) Increase the ICT human resource capital; and
- v) Strengthen the policy, legal and regulatory framework.

1.3 Sub-programmes

The National Digital Transformation Programme is implemented through the following sub-programmes:

- i) Enabling Environment.
- ii) Research, Innovation and ICT Skills Development.
- iii) E-services.
- iv) ICT Infrastructure.



CHAPTER 2: METHODOLOGY

2.1 Scope

This report is based on selected sub-programme interventions and outputs under the Digital Transformation Programme that are contributed to by the following votes: Vote 020: Ministry of Information, Communication Technology and National Guidance (MoICT&NG), and Vote 126: National Information Technology Authority of Uganda (NITA-U). The selection of areas to monitor is based on a number of criteria:

- i) Outputs were planned for and undergoing implementation in the review period
- ii) Significance of the budget allocations to the sub-programmes within the programme budgets, with focus being on large expenditure interventions. Preference is given to development expenditure.
- iii) Potential of interventions to contribute to programme and national priorities.

All the ten interventions in the reprioritised Programme Implementation Action Plans (PIAP) were monitored (**Annex 1**) representing 100% coverage.

2.2 Approach and Methods

Both qualitative and quantitative methods were used in the monitoring exercise. The physical performance of planned outputs was assessed through monitoring a range of indicators and linking the progress to reported expenditure and/or planned targets. The purposive sampling method was used in selecting outputs from the Programme Implementation Action Plans (PIAPs), Ministerial Policy Statements (MPSs) and progress reports of the respective Ministries, Departments, and Agencies (MDAs) for monitoring. Multi-stage sampling was undertaken at three levels: i) Sub-programmes, ii) intervention, and iii) outputs.

2.3 Data Collection and Analysis

2.3.1 Data Collection

Both primary and secondary data was collected from the sources and by the means that are indicated below:

- i) Literature review: MPS FY2023/24; National and Programme Budget Framework Papers; PIAPs, the third National Development Plan (NDP III), periodic progress reports and work plans for the respective implementing agencies, Budget Speech, Public Investment Plans, Approved Estimates of Revenue and Expenditure, project reports.
- ii) Review and analysis of data from the Integrated Financial Management System (IFMS), Program Budgeting System (PBS), institutional websites, and quarterly performance reports.
- iii) Consultations and key informant interviews with project managers and activity implementers.
- iv) Field visits to various project sites for primary data collection, observation and photography.
- v) Call-backs in some cases were made to triangulate information.

2.3.2 Data Analysis

The data was analyzed using both qualitative and quantitative approaches. Qualitative data was examined and classified in terms of constructs, themes or patterns to explain events among the beneficiaries (interpretation analysis) and reflective analysis where the monitoring teams provided an objective interpretation of the field events.



Quantitative data on the other hand was analyzed using advanced Excel tools that aided interpretation. Comparative analyses were done using percentages, averages, and cross-tabulations of the outputs/interventions; intermediate outcome indicators and the overall scores. Performance of outputs/interventions and intermediate outcomes was rated in percentages according to the level of achievement against the annual targets. The sub-programme score was determined as the average percentage ratings for the outputs/intermediate outcomes in the ratio of 65%:35% respectively.

The overall programme performance score was assessed as an average of individual sub-programme performances assessed. The performance of the programme and sub-programme was rated on the basis of the criterion in Table 2.1. Based on the rating assigned, an enhanced traffic light colour-coded system was used to alert the policymakers and implementers on whether the interventions were achieved (green), performed well (yellow), on track (umber) or off track (red).

Table 2.1: Assessment Guide to Measure Performance in FY 2023/24

Score	Comment	Traffic Light
90% and above	Very Good (Achieved at least 90% of outputs)	Green
70%-89%	Good (Achieved at least 70% of outputs)	Yellow
50%- 69%	Fair (Achieved at least 50% of outputs)	Orange
49% and below	Poor (Achieved below 50% of outputs)	Red

Source: Author's Compilation

2.4 Limitation

1. Lack of disaggregated financial information for some outputs that contribute to several interventions.
2. The refusal by some entities especially the Uganda Communication Commission (UCC) to provide disaggregated data with targets and achievements affected the performance score for the programme.
3. Duplicate reporting of similar outputs in different interventions

2.5 Structure of the Report

The report is structured into four chapters. These are: 1) Introduction; 2) Methodology; 3) Programme Performance; and 4) Conclusion, and Recommendations respectively



CHAPTER 3: PROGRAMME PERFORMANCE

3.1 Overall Programme Performance

The Digital Transformation programme approved budget for FY2023/24 was Ug shs 247.8 billion (bn) which was revised upwards to Ug shs 295.2bn. A total of Ug shs 187.12bn (63.4%) was released and Ug shs 185.34bn (99%) spent by 30th June 2024. This was a fair release and very good expenditure. Although NITA-U had the biggest share of the programme budget, the release was poor (33.5%). The poor release for NITA-U was attributed to the low and inadequate release of the externally financed UDAP. Table 3.1 shows the overall financial performance.

Table 3.1: Financial Performance of the Digital Transformation Programme as at 30th June 2024

Vote	Approved Budget	Revised budget	Release	Spent	% Release	% Spent
Ministry of ICT and National Guidance	106.7	154.1	139.84	139.614	90.7	99.9
National Information Technology Authority-Uganda	141.1	141.1	47.283	45.725	33.5	96.7
Total	247.8	295.2	187.123	185.339	63.39	99.05

Source: PBS

The Digital Transformation Programme overall performance was good at 76.1%. All the sub programmes posted good performance during the financial year as shown in Table 3.2. The poor release under the Uganda Digital Acceleration Project (UDAP) at the National NITA-U negatively impacted on the programme performance.

Table 3.2: Digital Transformation Programme Performance as at 30th June 2024

Sub-programme	% outcome performance	Remark
ICT infrastructure	77.7	Good performance
E-services	82.4	Good performance
Research Innovation and ICT skills development	72.8	Good performance
Enabling environment	71.3	Good performance
Average	76.1	Good performance

Source: Authors' Compilation

3.2 ICT Infrastructure Sub-programme

The sub-programme goal is to increase national ICT infrastructure coverage and has three interventions to be implemented over the NDPIII period. The monitoring focused on two interventions namely: Implement the national addressing system; and extend broadband ICT infrastructure coverage countrywide in partnership with the private sector.

Performance

The sub-programme performance was good at 77.7% (Table 3.4). Performance of the intervention of extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals) was good. On other hand, the other two monitored interventions under the sub programme posted fair performance. Table 3.3 highlights the performance of the monitored interventions by 30th June 2024.



Table 3.3: Performance of Monitored Interventions under the ICT Infrastructure Sub-programme by 30th June 2024

Intervention	Colour code	Remark
Implement the national addressing system	50	Fair performance
Mainstream ICT in all sectors of the economy and digitize service delivery	50	Fair performance
Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals)	81.5	Good performance

Source: Authors' Compilation

The detailed performance of the two monitored interventions is given hereafter:

3.2.1: Implement the National Addressing System

The intervention contributes to the objective of enhancing the usage of ICT in national development and service delivery. The planned output under the intervention for FY2023/24 was infrastructure development and management.

The planned activities were to: rollout the national postcode and addressing system; extend the national backbone infrastructure; provide services through the postal outlets; and support public and private institutions to review, re-engineer their processes, automate and deliver services online.

The overall intervention performance was fair at 50%. By 30th June 2024, the first draft of standards for delivery of e-services through postal outlets was developed after consultations with UCC and POSTA Uganda. The postcodes were updated for the cities of Mbale, Gulu, Lira, Arua, Fort Portal, Mbarara and Jinja; and the municipalities of Iganga, Bugiri, and Kumi. In addition, the postcodes for the districts of Ngora, Soroti, Mbarara, Kamwenge, Kiruhura, Kazo, and Rwampara were also updated.

The MoICT&NG provided oversight in the implementation of Phase V of the National Backbone Infrastructure in Eastern and Northern region. The MoICT&NG also provided oversight in infrastructure rollout activities under the Uganda Telecommunications Corporation Ltd. Additionally, the quality of service of Uganda Telecommunications Corporation Ltd was assessed.

In order to support the review, re-engineering of processes, automation and delivery of services online, by the public and private institutions, the MoICT&NG undertook a situational analysis to inform the process. The following MDAs were assessed: Ministry of Local Government, Ministry of Internal Affairs, Ministry of East African Community Affairs, Ministry of Water and Environment (MoWE), Ministry of Works and Transport (MoWT), and Ministry of Finance, Planning and Economic Development (MoFPED). Others were Ministry of Education and Sports (MoES), Ministry of Public Service (MoPS), Ministry of Justice and Constitutional Affairs (MoJCA), Ministry of Gender, Labour and Social Development (MoGLSD) and Office of the Prime Minister (OPM).

3.2.2 Mainstream ICT in all Sectors of the Economy and Digitize Service Delivery

The intervention contributes to the objective of; enhance usage of ICT in national development and service delivery. The planned output under the intervention was ICT Infrastructure Planning.

The planned activities were: to develop monitoring reports on extension of the National Backbone Infrastructure; develop a framework for coordinated rollout of ICT infrastructure and services; develop a pre-feasibility study report for the interconnection and digitisation programme for PWDs; and develop regulations to implement the information and communications Bill 2022.

The overall intervention performance was fair at 50%. The monitoring reports for the extension of the National Backbone Infrastructure to last-mile sites in Central and Eastern regions was prepared.

Harmonization of NBI extension with existing government optic fibre infrastructure made. The first draft framework for coordinated rollout of ICT infrastructure and services was developed.

An assessment was conducted to inform the incorporation of ICT infrastructure deployment into Water and Sanitation (WASH) and Energy infrastructure planning and management with the new cities of Jinja, Masaka, Mbarara, Fort Portal, Arua, and Mbale and selected Ministries. The project profile and pre-feasibility study report for an interconnection and digitisation programme for People with Disabilities (PWDs) was developed. The regulations to implement the Information and Communications Bill, 2022 were not developed as planned.

3.2.3 Extend Broadband ICT Infrastructure Coverage Countrywide in Partnership with the Private Sector and Implement Last-mile Connectivity to Key Areas (Districts, Sub-counties, Schools, Hospitals)

The intervention contributes to the sub-programme goal of increased national ICT infrastructure coverage through extension of the NBI; and connection and provision of internet to MDAs. The planned outputs for the FY2023/24 were: infrastructure planning; infrastructure development and management; and ICT infrastructure deployment.

The overall performance of the intervention was good at 81.5%.

ICT infrastructure planning: During the FY2023/24, the NBI was extended to 101 MDAs and other target user group sites against a target of 100 service units. This increased the cumulative number of sites connected to 1,567 with 86% utilizing services over the NBI within the Financial Year. Seventy-seven (77) sites connected to the NBI during this reporting period belong to Uganda Telecommunications Company Limited (UTCL). This was in fulfilment of the MoU between UTCL and NITA-U that required NITA-U to provide support to revamp the UTCL network.

In addition, twenty-eight (28) outdoor WiFi hotspots were deployed during the Non-Aligned Movement and Group of 77 (NAM/G77+China) summits against a target of 50 sites. Eighteen (18) of the hotspots remained operational post-summit while the rest were decommissioned. The solar equipment installed at the 32 transmission sites were also maintained which ensured a service uptime of 99.8% on the NBI.

Technical support and guidance for inclusion of ICT infrastructure in design and upgrade of road projects was provided to Ministry of Works and Transport. In addition, a review of existing policy frameworks and the integrated transport master plan was conducted.



L-R: A fibre link to UTCL at the NITA-U Transmission site in Mbarara city, and a Police camera connected to the National Backbone Infrastructure network in Ibanda district



ICT infrastructure deployment: This is implemented under the Government Network (GOVNET/UDAP) Project. The plan was to upgrade the Metropolitan Area Network Centre to monitor service provision over the NBI, conduct last mile connectivity study for a total of 50 MDAs, LGs, parishes and hosting refugee communities, and support the establishment of two telecentres in two refugee centres in the country. Others were; One Regional e-waste collection centre established, NBI extended to 5 major districts of which two are refugee hosting communities, two motor vehicles acquired, unified messaging and collaboration services to additional 20 MALGs and parishes rolled out, and the third national data centre established.

By the end of the FY2023/24, the planned outputs were at varying stages of procurement pending disbursement of funds by the World Bank. The procurement for equipment to upgrade the Metropolitan Area Network (MAN) centre was re-initiated following the cancellation of the earlier one by the contracts committee. The last mile connectivity study was at pre-bid evaluation. The procurement of the vendor to establish the e-waste collection centre commenced and the Expression of Interest (EOI) shortlisting report was compiled.

The procurement for ICT equipment to extend the NBI was ongoing and at submission of bids. The procurement of two motor vehicles to support NBI works across the country was at contract signing. Licenses were acquired for additional 20 MALGs and parishes to roll out the Unified Messaging and Collaboration Services (UMCS) however, their distribution was yet to be undertaken. The procurement for the ICT equipment to deploy new Wi-fi hotspots at 50 new locations across the country was advertised.

The procurement of a consultant to upgrade the existing National Data Centre (NDC) was ongoing; and awaiting a no objection from the World Bank. The procurement process for the Third National Data Centre was at Technical Evaluation stage with a report approved by the Contracts Committee. The establishment of two telecentres in two refugee communities in the country was cancelled. This is because the establishment of telecentres was merged with the access enabler study. Table 3.4 shows the performance of the sub-programme monitored outputs per intervention; and intermediate outcomes.

**Table 3.4: Performance of the ICT Infrastructure Sub-programme by 30th June 2024**

Outputs Performance								Remark
Intervention	Out put	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Implement the national addressing system	Infrastructure Development and Management	487,721,570	100	100	100	50	50	Fair performance. First draft for delivery of e-services was developed.
Mainstream ICT in all sectors of the economy and digitize service delivery	ICT Infrastructure Planning	432,519,560	100	100	100	50	50	Fair performance as backbone was not extended
Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and all Government entities and implement last mile connectivity to key areas (Districts, sub-counties, schools, hospitals, post offices, tourism sites, police, LGs etc.)	ICT Infrastructure Planning	18,397,281,895	100	100	100	62.9	62.9	Fair performance with 77 UTL sites connected to the NBI
	ICT infrastructure deployment (GOVNET Project)	95,743,080,000	2.3	100	100	10	100	There was no release on the external financing component for the GOVNET project
Total		115,060,603,025						
Average Outputs Performance							65.73	Fair performance
Outcomes Performance								
Outcome Indicator				Annual Target	Achieved		Score (%)	Remark
Digital Terrestrial TV signal coverage				83	85		100	Target exceeded
Fixed broad band connectivity				15255	140626		100	Target exceeded
Internet penetration				43	63.7		100	Target exceeded
Population covered by broadband services (%)				83	85		100	Target exceeded
Radio signal coverage (%)				90	90		100	Target exceeded
Unit cost of 1Mbps/month of internet				100	100		100	Target exceeded
Average Outcomes performance							100	Achieved
Overall sub-program Performance							77.7	Good performance

Author's Compilation



A transmission site in Lira where OFC clink was provided for UTCL

Conclusion

The sub-programme performance was good at 77.7%. The first draft of the standards for delivery of e-services through postal outlets was developed and the NBI connectivity was extended to give internet access to five sites. The ICT infrastructure registered poor performance because most of the contracts under the UDAP project had not commenced due to the delay in funding by the World Bank.

3.3. E-services Sub-programme

The sub-programme goal is enhanced usage of ICT in national development and service delivery. The monitoring focused on two interventions namely: Mainstream ICT in all sectors of the economy and digitize service delivery and Strengthen Cyber Security in the country.

Performance

The performance of the sub-programme was good at 82.4%. The intervention of ‘*Mainstream ICT in all sectors of the economy and digitize service delivery*’ had good performance while that of ‘*Strengthen Cyber Security in the country*’ was fair. Table 3.5 highlights performance of the monitored interventions. The detailed performance of the monitored intervention is presented hereafter.

Table 3.5: Performance of Selected Interventions under the E-Services Sub-programme by 30th June 2024

Intervention	Colour code	Remark
Mainstream ICT in all sectors of the economy and digitize service delivery	85.5	Good performance
Strengthen Cyber Security in the country	55	Fair performance

Source: Authors' Compilation

3.3.1 Mainstream ICT in all Sectors of the Economy and Digitize Service Delivery

The intervention contributes to the Programme's objective of enhanced usage of ICT in national development and service delivery. The intervention aims to promote interoperability, data sharing and integration of government systems; and rollout of e-services to citizens and government institutions.

The planned outputs for the FY2023/24 include: e-services rolled out; Parish Development Model (PDM) equipment procured; and PDM operations supported. The intervention performance was good at 85.5% with the output of Parish Development Model Operations posting very good performance. The detailed performance of the monitored outputs is discussed hereunder.



E-services: The Unified Messaging and Collaboration System (UMCS) was rolled out to 147 entities against a target of 20. This increased the cumulative total of UMCS active users to 29,307 against 32,998 issued licenses. It was observed that although the UMCS was rolled out to lower Local governments and Hospitals, many of these entities were not using it. This risks the safety and security of government's information that is exchanged through alternative private emails.

The NITA-U supported ten BPO centres through provision of subsidized internet and technical support in terms of IT regulation requirements and enabling linkages of innovators to potential markets. The supported BPOs were expected to create 286 ICT related jobs. The interoperability framework was rolled out to Ministry of Local Government and Ministry of Health. This enabled them to revise their own frameworks.

Twenty-one public and private entities were integrated onto the Whole-of-Government integration and data sharing platform against a target of 40, bringing the cumulative number of entities on-boarded to 138. Seventy-six of these were on the UGhub and able to cumulatively undertake 136,210,194 transactions by the end of June 2024.

The UGPass was rolled out to Bayport Financial Services and EGP Uganda bringing the total number of systems on the platform to four including (electronic Documentation) e-DOC and IT Certification Office (ITCO). Six websites were developed and five were revamped with majority being from the local Government and training institutes. This brought the cumulative website domains supported by NITA-U to 539 during the FY.

The online service for registration of women in business across the country was identified and a proposal developed; and submitted for approval. By the end of the FY, the approval had not been provided. To establish the ICT/BPO Park, M/s BSMART Technology Limited was on-boarded under a PPP arrangement.

Parish Development Model Equipment: The plan was to develop and implement the Parish Development Model Information System (PDMIS) and system modules annual Service-Level Agreement (SLAs) supported.

By 30th June 2024, the financial inclusion and registration modules of the PDMIS were handed over by the developer. Users were trained and the user manuals were printed and disseminated. The support contract for the financial inclusion and registration modules of the PDMIS was signed and implemented.

The Terms of Reference (ToR) for the infrastructure and economic services module of the PDMIS were developed. On the other hand, the citizen participation interaction; and monitoring and evaluation modules were rolled out and their implementation monitored by the MoICT&NG.

Parish Development Model Operations: The plan was to ensure PDMIS system integrations; data validation and qualification for sharing; support to all PDMIS system related activities across all 10,594 Parishes provided, selected MDAs and LGs; and assess PDMIS performance in all Parishes, MDAs and LGs.

By 30th June 2024, the operationalization of the “*Bank Wendi*” application to enable beneficiaries to receive funds on their mobile money wallet, and loan disbursement reconciliation exercise with 3 of the transacting banks was completed. These were Stanbic Bank, Centenary Bank, and Equity Bank. Data monitoring and clean-up for duplicate household and National Identification Numbers (NINs) on the registration module of PDMIS was undertaken.



Twelve virtual support meetings were organised for 135 districts, targeting Accounting Officers at LGs, PDM focal persons, district IT officers, and District Commercial Officers to address frequently raised issues. A total of 62,108 queries related to the PDMIS were resolved during the FY. Twenty-nine (29) system walkthrough videos were produced to enhance user proficiency with the PDMIS-financial inclusion and registration systems.

The PDMIS laptops were configured and distributed to selected 170 Local Governments with support of the Ministry of Local Government. The performance monitoring was carried out in selected parishes across 30¹ districts. The results of the monitoring pointed to an improvement in the adoption of PDMIS among users, with approximately 80.2% of loan applications for the Parish revolving fund processed on the system. It also identified the need for more capacity building on the system and improvements in the resolution time for issues raised through the service desk.

3.3.2 Strengthen Cyber Security in the Country

The intervention aims at enhancing cyber security through the implementation of the National Information Security Framework (NISF); provision of Computer Emergency Response Teams (CERTs) services; utilization of the national cyber threat intelligence platform; and training in cybercrime investigation and prosecution. The planned output for the FY2023/24 was cyber security strengthened.

The intervention performance was fair at 55%. In a bid to strength the cyber security in government entities, 11 out of 20 MDAs were assessed against the NISF. In order to adopt the implementation of the ISO/IEC 27001 Standard, a consulting firm was procured to develop the Cyber standards for SMEs and implement the ISO 27001 for key MDAs.

The National Information Risk Register (NISAG) meeting was held and the plan of action discussed. This was intended to update and maintain a proper track of cyber incidents and possible mitigations from all service delivery stakeholders. The NITA-U disseminated thirty-six CERT advisories and alerts targeted towards proactive defence against cyber-attacks. Thirty-two information security awareness' campaigns aimed at improving the information security hygiene in the public were conducted.

The enhancement of the cyber security monitoring capability, national CERT assurance services, and CERT.UG accreditation by the global Forum of Incident Response and Security Teams (FIRST) were at varying levels of procurement of consultants. Table 3.6 shows the performance of the sub-programme monitored outputs.

¹ Soroti, Bundibugyo, Katakwi, Mpigi, Ntoroko, Kumi, Sembabule, Fort Portal, Kyotera, Kabarole, Rukungiri, Bunyangabo, Kamwenge, Nakasongola, Dokolo, Kyegegwa, Rubirizi, Rwampara, Mitoma, Kyenjojo, Sheema, Kisoro, Oyam, Ouke, Amolatar, Apac, Kiruhura, Kole, Lira, and Hoima.

**Table 3.6: Performance of the E-Services Sub-programme by 30th June 2024**

Outputs Performance								Remark
Intervention	Out put	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Mainstream ICT in all sectors of the economy and digitize service delivery	E-services	6,834,606,500	100.0	100	100	76.2	76.2	Good performance. Unified Messaging and Collaboration System (UMCS) was rolled out to 147 entities.
	Parish Development Model	4,000,000,000	97.8	100	100	80	81.84	Very good performance. The Financial Inclusion Module and the Registration Module of the PIDMIS were operational.
	Parish Development Model Operations	777,525,641	100.0	100	100	98	98	Very good performance as PDMIS laptops were configured and distributed to selected 170 Local Governments and monitoring undertaken.
Strengthen Cyber Security in the country	Cyber Security	306,400,000	100.0	100	100	55	55	Fair performance however, CERT advisories were issued.
Total		11,918,532,141						
Average Outputs Performance							77.76	Good performance
Outcomes Performance								
Outcome Indicator				Annual Target	Achieved		Score (%)	Remark
ICT contribution to GDP				3.5	2.7		77	Good performance
National broadband coverage with minimum speed of 8 Mbps, %				50	55		100	Target exceeded
Proportion of government services online				35	65		100	Target exceeded
Average Outcomes performance							92.4	Very Good performance
Overall sub-program Performance							82.9	Good performance

Source: Author's Compilation



Conclusion

The sub-programme performance was good at 82.9%. The financial inclusion and registration modules of the PIDMIS were operationalized and the LGs were supported on PDMIS issues. The interoperability framework was rolled out to two entities. The BPO centres were supported through provision of subsidized internet and technical support. Twenty-one public and private entities were integrated onto the Whole-of-Government integration and data sharing platform. The Unified Messaging and Collaboration System (UMCS) was rolled out to 147 entities. However, a number of entities were not using the UMCS which risks the safety and security of government's information exchanged through private emails. Two of the three outcome indicators were achieved.

3.4 Research, Innovation and ICT Skills Development Sub-programme

The sub-programme aims to promote ICT research, innovation and commercialization of indigenous knowledge products and increase the ICT human resource capital. The monitoring focused on three interventions namely: support local innovation and promote export of knowledge products; promote local manufacturing and assembly of ICT products; and develop ICT centres of excellence and vocational institutions.

Performance

The overall sub-programme performance was good at 72.8% (Table 3.8). This was on account of a good by all the interventions. Table 3.7 highlights intervention performance under the sub-programme by 30th June 2024.

Table 3.7: Performance of Interventions under the Research, Innovation and ICT Skills Development Sub-programme by 30th June 2024

Intervention	Colour code	Remark
Support local innovation and promote export of knowledge products	87.4	Good performance
Promote local manufacturing and assembly of ICT products	79.3	Good performance
Develop ICT centres of excellence and vocational institutions	83.6	Good performance

Source: Authors' Compilation

3.4.1 Support Local Innovation and Promote Export of Knowledge Products

The intervention contributes to the programme's objective of promoting ICT research, innovation and commercialization of indigenous knowledge products. The planned outputs for the FY2023/24 were: E-services provided, Business Process Outsourcing (BPO) support services provided, and Innovation fund management. The intervention performance was good at 87.4%. The progress of implementation of the outputs under this intervention are presented hereunder:

E-services Provided: The MoICT&NG gathered existing IP guidelines on ICT and corresponding strategies in the region; and identified key external and internal stakeholders to review the draft guidelines. As a result, the National ICT Intellectual Property Guidelines were developed and expert review engagements conducted. The guidelines were pending approval by the ministry's Top Management before being launched.

BPO Support Services Provided: The plan was to develop and finalize the National Business Process Outsourcing (BPO) implementation strategy, promote the BPO industry, skill BPO companies, and produce a BPO and innovation marketing plan.



By 30th June 2024, the MoICT&NG conducted three regional stakeholder consultations on the national BPO implementation strategy in Mbarara, Gulu and Jinja districts. The BPO implementation strategy was developed, pending approval by the MoICT&NG. A situational baseline report on branding Uganda as a BPO and innovation destination, and national BPO publicity and marketing plan were developed. An inventory of existing BPO international standards and best practices, and a capacity skills gap report based on previous studies of the BPO industry in Uganda were compiled.

A BPO industry training assessment with key players in the ecosystem was undertaken and a draft BPO training specifications report was produced. A baseline survey on the existing BPO companies, development of a BPO companies' database, and a publicity campaign were ongoing.

Innovation Fund Management: The plan was to design, develop and deploy the Government Assets Management Information System (GAMIS) at MoFPED; acquire, upgrade and operationalization of the Electronic Document and Records Management System (EDRMS); support and maintenance of the URSB System (The Online Business Registration System (OBRIS)); monitor, evaluate and develop quality assurance of locally developed systems; and conduct a security audit of the locally developed systems.

By the end of FY2023/24, the source code of the EDRMS was acquired and the system was deployed in three Ministries and one agency. A consultant was procured to undertake support and maintenance of the URSB System (OBRIS). The quarterly monitoring, evaluation and quality assurance, and the security audit of the locally developed systems was undertaken. On the other hand, the design, development, and deployment of the Government Assets Management Information System (GAMIS) was not done due to budget constraints.

3.4.2 Promote Local Manufacturing and Assembly of ICT Products

The intervention aims at promoting and supporting local ICT assembly and manufacturing through the promotion of ICT research, innovation and commercialization of indigenous knowledge products. The planned output for the FY2023/24 was; Grants to ICT innovators provided. Overall the intervention's performance was good at 79.3%.

The plan was to successfully manage the E-Government systems acquired under National ICT Initiatives Support Programme (NIISP), and promotion of export of knowledge products. By the end of FY2023/24, the E-Government systems acquired under NIISP were successfully managed. In addition, the MoICT&NG conducted support and maintenance of the online business registration system. The development of phase 2 modules, maintenance and operationalization of the Parish Development Management Information System (PDMIS) was undertaken. There was no local ICT assembly and manufacturing reported during the FY in line with the intervention aim.

3.4.3 Develop ICT Centres of Excellence and Vocational Institutions

The intervention contributes to the Programme's objective of increasing the ICT human resource capital. The planned output for FY2023/24 was; inclusive access to quality ICT training at the tertiary education level ensured. The intervention performance was good at 83.6% and details are discussed hereafter:

Support to UICT

The UICT admitted 80 government sponsored students through the Joint Admission Board for the 2023-24 cohort. This brought the total number of government sponsored students to 1,325 since 2020-21.

A grant for the development of the Virtual Reality (VR) Centre was approved by the Office of the Solicitor General (SG) and funds disbursed to MoICT&NG. As a result, a project implementation team was setup at UICT and was undergoing training. A project management plan was developed and



approved and the project Steering Committee and the AR/VR project management specialist were appointed. The counterpart funding to EON Reality Inc as per the Grant Agreement was fully paid.

The delivery, installation and customisation of the AR/VR equipment and software (including 5,000 Education and 750 Enterprise Licenses respectively) from EON Reality Inc was completed. Access to the EON VR/AR platform and technical training was ongoing with 1,226 persons enrolled on the platform.

The AR/VR knowledge transfer and capacity-building activities were completed including 12 training sessions for lead administrators, selected trainers of trainers, and academic champions on optimizing EON VR/AR platform. Ten VR/AR demonstrations in ICT, engineering, and business management were delivered after training.

A needs assessment for infrastructure enhancements was completed. The procurement of a contractor for civil works for the AR/VR Centre, structural cabling and installation, supply of computers and VR/AR content development was awaiting clearance by SG.

The renovations of the Estates/Procurement office, furnishing, walkway repairs at the administration block, partitions and electromechanical works was completed. In addition, servicing of air conditioners, installation of cameras at the classroom block and Phase 1 refurbishment of two staff quarters was also completed.

Nine² courses were reviewed/developed/co-created and the curriculum for applied research innovation and entrepreneurship was customized using a combination of the entrepreneurship and innovation short courses to form the UICT mentorship and internship work packages.

A total of 733 participants composed of staff and students were trained in applied research and innovation. Ten applied research and innovations publications were in the process of being published in cooperation with others stakeholders in the industry and academia. Full access was provided to the international online e-learning platform to support research and innovation. These resources encompass: Institute of Electrical and Electronic Engineering (IEEE) for the Wiley Data and Cyber Security; and EON XR Platform with the following resources (Metaverse Builder, Interact, Spatial Meeting, Grant Program, Merged XR and Knowledge World).

An agreement between UICT and Microfuse Computer Technologies Ltd was developed to mentor and co-create innovative research projects with students and lecturers. This was aimed at the acceleration to evaluate, mentor and cultivate student project innovations for commercialization. Some of the selected projects include; smart car parking system, solar powered silver fish drier, electronic walking stick for the deaf and the blind, and selected innovations from the Agri-tech hackathon 2024.

Six innovation boot camps were conducted. These were: Agri-Tech Hackathon 2024; WAGITECH blogging challenge ideation in collaboration with EdTech health; 3D computer animation; digital skills; the Start-up 101; and altruism boot camps.

Two prototypes were submitted for acceleration towards commercialization to solve problems in agriculture, safety and security sectors. These were: Smart animal tag; and a microwave enabled security system.

Thirty-three 4IR events were conducted in collaboration with other stakeholders including in areas of digital skilling, meetups, boot camps, COBIT training and IP clinics. Other areas were; AI, cybersecurity workshops, PDM-CPIS training, disability inclusion, entrepreneurship training, youth

² 1. Introduction to r programming 2. Digital skilling for internship program course, 3. Digital skills employability course, 4. Cyber security management program, 5. Internet of things, 6. Intermediate python course, 7. Data analytics business intelligence, 8. Intermediate machine learning course and customisation, and 9. Introduction to artificial intelligence.

mentoring, block-chain exploration, climate change programs, and study tours, all aimed at enhancing innovation and reducing unemployment.

Forty (40)³ Innovators were hosted at the National ICT Innovation Hub-Nakawa and 8,227 participants were trained in basic and intermediate digital literacy skills. Additionally, 463 users were identified and mobilized for ICT trainings and 407 ICT officers and e-Government systems users were trained. Four Curricula and content were developed to support teaching and learning of TEVT. Two training were conducted in Cybersecurity by the UJ-Connect information security trainer.

The Open distance and e-learning (ODEL) support system was upgraded to 80%. Detailed Terms of Reference (ToRs) for the procurement of a reputable firm to provide support and expertise for the ODeL system upgrade were finalized.



Level 2 of the ICT Innovation hub in Nakawa. It was hosting 40 innovators in July 2024

The monitoring and evaluation framework for the ICT research and innovation ecosystem was developed to 90%. Table 3.8 shows performance of the monitored outputs per intervention; and intermediate outcomes under the sub programme

³ Technology Innovators Students Association (TISA), Microfuse Computer Technologies, CIT2 Technologies, Sumic Online, Medi-Hub, Kacyber Technologies, SMS One(U) limited, Code Impac, Ridelink, Info Consults, Askari/Ngaro Project, Uzazi Hub, Auto Fore, Questlyft, IoTEC., Kwetu Auctions and Realt, eRyte Museum of Technology (eMoT), Wacloud, Mpungu Analytics, Wal-e Visual, Cross roads Animation, Streamline Education Media, CBM Brothers, Cawine, Kollaborate, Cognosphere Dynamics Limited, Mindlyfe Limited, Afya Hub, Market Uganda, Ever Pesa Technologies, Innerspark, Tubayo, Real VR, Sauti Marketing, National Online Mentorship System, Zentrix Africa Technology Institute, Uhlendorf Innovations Africa, Veritas Interactive, Centrifox, Affuna Addula Winners Association Ltd, Honeycomb, Starkon LTD, Deron Limited- PDMIS System developers, SMS One (U) LTD / EMIS- SMS One (U) LTD Ameritech, Thrive Spaces, Kabin and Set, CPAF, Tricsoft, and Tulinayesu PB



Table 3.8: Performance of the Research, Innovation and ICT Skills Development Sub-programme by 30th June 2024

Outputs Performance								Remark
Intervention	Out put	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Support local innovation and promote export of knowledge products	E-services	537,777,080	100	100	100	100	100	Very good performance. The National ICT Intellectual Property Guidelines were developed.
	BPO Support Services	3,014,000,000	44.4	100	100	37.5	84.47	Good performance. National BPO implementation strategy was developed.
	Innovation Fund Management	4,397,370,730	64.4	100	100	50	77.64	Good performance but the GAMIS was not deployed at MoFPED as planned.
Promote local manufacturing and assembly of ICT products	Grants to ICT Innovators	12,618,057,624	71.9	100	100	57	79.29	Good performance. E-government systems were successfully managed.
Develop ICT centres of excellence and vocational institutions	Support to UICT	17,007,888,000	77.7	100	100	65	83.61	Good performance. Over 1,325 government sponsored students supported
Total		37,575,093,434						
Average Outputs Performance							85	Good Performance
Outcomes Performance								
Outcome Indicator				Annual Target	Achieved		Score (%)	Remark
ICT directly created jobs ('000s)				40	20		50	Fair performance
Average Outcomes performance							50	Fair performance
Overall sub-program Performance							72.8	Good performance

Source: Field Findings, PBS and IFMS

Conclusion

The sub-programme performance was good at 72.8%. The national ICT hub brand and public relations' strategy was operationalized and an innovator coaching scheme was developed through a collaborative mechanism. The ODeL support system was upgraded to 80% and the monitoring and evaluation framework for the ICT research and innovation ecosystem was developed to 90%. The ICT sector Intellectual Property guidelines, and National Business Process Outsourcing (BPO) implementation strategy were developed. The design, development, and deployment of the Government Assets Management Information System (GAMIS) however was not done due to budget constraints.

3.5. Enabling Environment Sub-programme

The sub-programme aims at strengthening the policy, legal and regulatory framework of the DT Programme with two interventions that are implemented over the NDPIII period. These are: i) review and develop appropriate policies, strategies, standards and regulations that respond to industry needs; and ii) regulate, coordinate and harmonize ICT infrastructure planning, sharing and deployment within the public and private sector. All the two interventions were monitored.

Performance

The overall sub-programme performance was good at 71.3% (Table 3.10). Two standards were being developed against a target of five. The MoICT&NG supported the development of BPO, communications, and national guidance polices. In addition, four out of the planned five NITA-U staff were enrolled for the “Artificial Intelligence (AI) for Policy Makers” course.

Table 3.9 highlights the performance of the monitored intervention. The detailed performance of the monitored intervention is given in the ensuing sub-sections.

Table 3.9: Performance of Monitored Interventions under the Enabling Environment Sub-programme by 30th June 2024

Interventions	Colour Code	Remark
Review and develop appropriate policies, strategies, standards and regulations that respond to industry needs	75.1	Good performance
Develop an ICT professional's quality assurance framework	35	Poor Performance

Source: Authors' Compilation

3.5.1 Review and Develop Appropriate Policies, Strategies, Standards and Regulations that Respond to Industry Needs

The intervention aims at strengthening the ICT policy, legal and regulatory framework. The planned outputs for FY2023/24 were: audit and risk management; finance and accounting; human resource management; planning and budgeting services; procurement and disposal services; records management; administrative and support services; general administration; and data protection and privacy. The performance of the intervention was good at 75.1%.

The MoICT&NG supported the development of BPO; communications, and national guidance polices. The procurement of equipment for the upgrade of Kasese, Fort Portal and Bundibugyo Digital Terrestrial Television (DTT) transmission sites in Western Uganda was undertaken. Phase one of the procurement for upgrade and deployment of one-Beam DTT/Direct – To – Home (DTH) satellite transmission system was undertaken. This was to ensure redundancy and provision of local and regional program stream.



At least five staff were enrolled for the following courses: AI for Policy Makers" course offered by the German Federal Ministry for Economic Cooperation and Development (BMZ); Cybersecurity Certification offered by ISC2; Data Protection and Privacy Rights offered by the Council of Europe; and Internet Governance offered by Internet Society Uganda Chapter.

In a bid to improve awareness of personal data protection and privacy regulations, 110 sensitization events were conducted in both the public and private sectors.

An assessment of the birth, death, and adoption registration system at NIRA was conducted ensuring the incorporation of privacy by design principles. The NITA-U completed the technical evaluation for procurement of consultancy services to develop guidelines and a compliance assessment toolkit under the data protection and privacy Act.

The NITA-U undertook Unified Messaging and Collaboration System (UMCS) user satisfaction survey. A monitoring visit to the youth start up academy at Hive Colab was undertaken to assess the effect of the NITA-U support to the project. Additionally, orientation to the innovators on the regulatory framework in ICT was carried out.

To create awareness and promote use of e-Government services, 19 marketing campaigns were carried out both on TV and radio.

3.5.2 Develop an ICT Professional's Quality Assurance Framework

The intervention contributes to the NDP III objective of increasing the ICT human resource capital. The planned key deliverable over the NDPIII period is a certification framework to regulate ICT professional standards developed. The planned output for the FY2023/24 was legal and advisory services provided. The intervention performance was poor at 35%.

During the FY2022/23, the NITA-U developed TORs for the review and development of identified laws and regulations in Uganda's ICT. Two standards were reviewed and submitted to the national technical standards committee for approval. Thirty-nine IT service providers were registered and certified in-line with the IT certification regulations. This brings the total number of registered service providers to 154.

Two stakeholder engagements were held to enhance awareness on cyber laws, consumer protection, and certification of providers of IT services and products. A total of 43 sensitization awareness activities were conducted during the year.

Table 3.10 shows performance of the monitored outputs per intervention; and intermediate outcomes under the Enabling Environment sub-programme.


Table 3.10: Performance of the Enabling Environment Sub-programme by 30th June 2024

Outputs Performance								Remark
Intervention	Out put	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Review and develop appropriate policies, strategies, standards and regulations that respond to industry needs	Administrative and Support Services	29,094,666,504	99.3	95	100	96	96.69	Very good performance as the administrative obligations were fulfilled.
	Facilities and Equipment Management	801,045,751	48.8	99	100	42	86.15	Good performance. Some office equipment was procured
	Data protection and privacy	111,734,000	100	96	100	85	85	Good performance. Five NITU-U staff were enrolled for cyber security related courses
	Policies, Regulations and Standards	212,750,000	100	97	100	66	66	Fair performance.
Develop an ICT professional's quality assurance framework	Legal and Advisory Services	150,090,000	100	98	100	35	35	Poor performance. Few new policies and guidelines completed
Total		30,370,286,255						
Average Outputs Performance							73.77	Good Performance
Outcomes Performance								
Outcome Indicator				Annual Target	Achieved		Score (%)	Remark
No. of Legal and regulatory framework in place				3	1		33	Poor performance
Proportion of licensees adhering to requirements (%)				60	65		100	Target exceeded
Average Outcomes performance							66.7	Fair performance
Overall sub-program Performance							71.3	Good performance

Source: Field Findings, PBS and IFMS



Conclusion

The Enabling Environment Sub-programme's performance was good at 71.3%. The monitored outputs were on track except that of legal and advisory services. Five staff were enrolled to different cyber security related courses. The Unified Messaging and Collaboration System (UMCS) user satisfaction survey; and Marketing Campaigns were carried out to popularise the e-Government services. There were few policies developed and approved during the period under review.



CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The overall Digital Transformation (DT) Programme performance was good at 76.05%. All the sub-programmes posted good performance during the financial year. The sub-programmes of E-services and ICT infrastructure had good outcome indicator performance. On the other hand, the enabling environment, and Research, innovation and ICT skills development sub-programmes had fair outcome indicator performance.

There was an increase in the proportion of Government services online, fixed broad band connectivity, national broad band coverage with a minimum speed of 8Mbps, and proportion of licensees adhering to requirements. There was also a reduction in the Unit cost of 1Mbps/month of internet from USD 75 in FY2022/23 to USD 35 in FY2023/24.

The Radio signal coverage stagnated at 90%. The number of Legal and regulatory framework in place, and the ICT contribution to GDP was not achieved. The financial inclusion and the registration modules of the PDMIS were operationalised and training was provided to the users. The E-waste policy; and guidelines were presented to Cabinet while the E-waste extended producer regulations scoping report was developed. The E-waste Strategy was disseminated.

The National ICT Intellectual Property guidelines were awaiting approval by top management of the MoICT&NG. The National Business Process Outsourcing (BPO) implementation strategy was developed. The Unified Messaging and Collaboration System (UMCS) was rolled out to nine additional entities although its use in most of the Local Governments and Regional Referral Hospitals was minimal. Twenty-one public and private entities were integrated onto the Whole of Government platform.

An innovator Coaching Scheme with Microfuse Computer Technologies was developed and three innovations were supported to commercialize. The upgrading of the ODeL support system progressed to 80%. The development of a monitoring and evaluation framework for the ICT research and innovation ecosystem progressed to 90%. A total of forty innovators were hosted at the national ICT hub at Nakawa although the facility remained underutilised.

The Metropolitan Area Network Centre upgrade and the development of the regulation for Information and Communications Bill, 2022 were not undertaken as planned due to resource constraints. In addition, the Government Assets Management Information System (GAMIS) was not deployed at MoFPED.

The programme was faced with: delayed funding for the UDAP which affected the establishment of ICT infrastructure; insufficient staffing levels at both NITA-U and UICT; limited funding for research and innovation; and inadequate infrastructure to support specialized ICT training especially at the UICT in Nakawa.



4.2 Recommendations

1. The NITA-U should fast-track the procurement processes for the required service providers and expedite the fulfilment of the requirements for external financing to facilitate release of funds to support infrastructure development under the UDAP project.
2. The MoICT&NG should support the NITA-U to acquire more physical space for storage infrastructure at the data centre.
3. The MoICT&NG should support the UICT to establish the required infrastructure such as lecture rooms, equipment and staff to facilitate specialized ICT training.
4. The MoICT&NG and NITA-U should ensure that the UMCS is used in institutions where it was rolled out.



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Annex 1: List of Interventions Sampled for Monitoring in the FY2023/24

Sub-programme	Intervention
ICT Infrastructure	Implement the national addressing system
	Mainstream ICT in all sectors of the economy and digitize service delivery
	Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals, post offices, tourism sites, police, LGs etc.)
E-services	Mainstream ICT in all sectors of the economy and digitize service delivery
	Strengthen Cyber Security in the country
Research, Innovation and ICT Skills Development	Support local innovation and promote export of knowledge products
	Promote local manufacturing and assembly of ICT products
	Develop ICT centres of excellence and vocational institutions
Enabling Environment	Review and develop appropriate policies, strategies, standards and regulations that respond to industry needs
	Develop an ICT professional's quality assurance framework

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