UGANDA COMMUNICATIONS UNIVERSAL SERVICES ACCESS FUND SUPPORTS THE ADOPTION OF ICT IN THE EDUCATION SECTOR

The Uganda Communications Universal Services Access Fund (UCUSAF), formerly known as Rural Communications Development Fund (RCDF), is a semi-autonomous universal service fund managed and administered by the Uganda Communications Commission (UCC).

Formed in 2003 by an Act of Parliament, UCUSAF is mandated to extend communication services to the unserved and underserved areas of Uganda. The fund is administered as a semi-autonomous department under UCC, currently headed by Mr Nyombi Thembo. The fund is run on a five-year strategy and so far, UCUSAF has implemented projects under three strategies: RCDF I (2003-2008), RCDF II (2009-2015), and RCDF III (2017-2021). RCDF I and II focused on infrastructure availability, ICT awareness, and accessibility, while RCDF III focused on broadband connectivity and access, content, and research as well as advocacy.

UCUSAF's initiatives in the education sector
ICT in education
UCUSAF has an extensive school programme that is premised on the thought that ICTs in education foster the preparation of youth to participate creatively in the establishment, sustenance, and growth of a knowledge society leading to the all-around socioeconomic development of the nation and global competitiveness. The education sector has an existing universal access reach against which ICTs can be backed in alignment with the education Digital Agenda Strategy 2021-2025, which advocates for human capital development in the sector leveraging on ICT use and penetration, resulting in improved quality learning outcomes.

Objectives of the ICT in education programme
1. Enabling creativity and innovation through the collaborative use of ICTs among learners and teachers.
2. Integrate ICT in mainstream disciplines and related learning activities.
3. Increase sustainability of ICT facilities through increased awareness among teachers and school administrators.
4. Empower school hosting communities through enabling access to installed ICT resources.
5. Promote inclusive learning among learners with disabilities.

Typical set up of one of the ICT labs

ICT computer laboratories
This flagship project that started in the early 2000s when RCDF/UCUSAF I was first launched, was seen as the foundation against which all the other initiatives of ICT in education highlighted in this article are premised.

Until then, no government secondary school had an ICT laboratory, and so no school was teaching Computer Studies as a subject. To date, UCC through UCUSAF has implemented ICT computer labs in 1,245 education institutions (1,156 Secondary Schools and 89 other institutions, including universities, National Teachers' Colleges, and Primary Teachers' Colleges.

All the secondary schools teach the ICT subject either at O-Level or A-level, and UNEB results have shown tremendous improvement in ICT performance over the years as well as integration of ICT in teaching and learning.

Internet connectivity to schools
UCC/UCUSAF previously provided a dedicated Internet-Link of 256Kbps to secondary schools, but with changes in technology and the development of new services in education, this ceased to be enough.

UCUSAF has partnered with Research Education Network Uganda (RENU) and mobile telecom operators to provide a dedicated Internet connectivity link of up to 5Mbps to schools while

meeting the costs of installation, 100 percent, 70 percent, and 50 percent cost of bandwidth for the first, second and third years respectively, before exiting for the schools to sustain the project.

This, again, is intended to enhance easy and quick access to information, drive research, enable teaching using ICT, and enable the building of skills in ICT and other areas through access to information. So far, a total of 90 secondary schools are connected to the Internet and a further 90 schools are to secure connectivity in the coming financial year.

Digital science content
UCC and the Ministry of Education and Sports signed a memorandum of understanding in which UCC through the UCUSAF to support the Ministry through the provision of ICT services in selected schools by establishing ICT laboratories in the schools, together with appropriate content. The digital science content is currently the content approved by the Ministry of Education and Sports and supported by UCC/UCUSAF.

The objective of this content is to enable the teachers and students to easily teach and learn science subjects and facilitate precise simulation of practical scenarios. This content has been procured and installed in over 1,000 secondary schools that have computers supplied by UCC/UCUSAF.

Teacher retooling programme
Under this programme, all teacher training institutions were provided with ICT infrastructure and all associated support services to get ICT fully integrated into the teaching of teachers. However, because it would take time before adequate numbers of such trained teachers are raised, a stop-gap measure of retooling at least two teachers from each of the schools that champion ICT integration in those schools was adopted by the Ministry of Education and Sports, supported

Actively involving students in innovative ICT projects

The launch of ICT Clubs has already been completed in a number of schools

Launch of the Mbale Secondary School ICT Club

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One of the objectives of creating the school ICT clubs is to train the students in basic computer maintenance skills- sustainability

by UCC/UCUSAF. Retooling of teachers has been carried out every year since RCDF/UCUSAF II in 2009, and over 10,000 teachers and headteachers have been retooled.

ICT clubs in schools

UCC in partnership with the Ministry of Education and Sports and some private sector entities in the education sector spearheaded the formation of ICT clubs in secondary schools. So far, a total of 60 ICT clubs have been established in secondary schools with a further 60 to be rolled out in this financial year.

Community ICT training

The schools with computer laboratory infrastructure have in the past also acted as platforms to provide digital literacy skills to the communities around them, which has helped to reduce the digital divide in the country. A training programme for the communities, focusing on practical ICT skills, was developed. The project sought to enable communities around schools with ICT laboratories to acquire ICT skills.

The programme was run during school vacations. Schools contributed to the environment, the ICT laboratories, and teachers while UCC provided logistical support, meals, and technical guidance. Area local leaders,

including MPs, provide the required mobilization for the trainees. The main objective of this programme is to enable the trainees to become people who can work for ICT facilities and integrate ICTs in their way of life. To date, more than 50,000 people in the communities have been skilled.

E-Learning project

UCUSAF created a collaboration with a team of educationists to implement a pilot holistic eLearning Project for schools, starting with St. Mary's College Kisubi, Gayaza High School, Nabisunsa Girls School and Busoga College Mwiri. The project aims at building the capacity of schools to provide better quality teaching and learning. The Holistic eLearning Project, which is expected to be rolled out, especially to the unserved and underserved rural schools, has the following objectives:

1. A narrower urban-rural disparity in terms of access to teaching and learning resources and quality of teaching.
2. More collaboration among schools on joint learning activities (learning together).
3. More ICT integration in different subjects across the curriculum.
4. More students exhibiting employable skills and competencies (critical thinking, problem-solving, innovation,

creativity, teamwork, collaboration).

ICT textbooks for schools

UCC/UCUSAF, in partnership with the Ministry of Education and Sports, developed curriculum content and published a book on ICT. The books were distributed in phases to government public schools. More than 1,000 secondary schools benefited from this initiative, which was intended to enhance student and teacher ICT knowledge, to ultimately build the required skills in areas such as programming, networking, and computer maintenance.

ICTs for People with Special Needs

People with disabilities are a priority group for UCC/UCUSAF, and that explains why various projects in support of PWD learners have been undertaken. Other than supporting schools in which these learners study, specific target interventions have been made.

A budgetary reservation of Shs 250 million per year has been set aside over the last three years to cater for assistive technology infrastructure for PWDs in schools. Mbale School for the Deaf and Gulu Secondary School have so far benefitted from this support as other schools await their turn.

Integrating teaching and learning using the ICT Labs

UCC EMPOWERING SCHOOLS TO DRIVE ICT LEARNING

Minister of Education and Sports Hon. Janet Kataaha Museveni receives computers from UCC to support digitization of education services in public Universities.

To embrace information and communications technology (ICT) in schools, the government through its agency, Uganda Communications Commission (UCC) under a project dubbed; Uganda Communications Universal Services Access Fund (UCUSAF)', has come up with different interventions targeting teachers and learners across the country.

According to the Commissioner of Government Secondary Education at the Ministry of Education and Sports Sam Kuloba, the interventions are meant to bridge the digital skills gap in education. He says the provision of computers to different government schools has helped to ease the implementation of the new curriculum where ICT is a compulsory subject.

The computers, he says, are connected to the Internet.

UCC also provided funding for retooling teachers and equipping them with modern ICT skills. Makerere College has used UCC's intervention as a vehicle to promote the teaching and learning processes. "We can attract more learners into the school since UCC started supporting us with computers in a space of three years," Mr Marthin Muyingo the headmaster says.

He says UCC distributed 100 computers to the school, financed Internet connections for two years, trained and retooled all teachers. Due to the use of ICT, the school has attracted partners from Sweden for an exchange programme. ''We have a visit where some students and teachers from Sweden will be visiting Makerere College and also some students and teachers from Makerere College will visit Sweden in September this year," he adds. Through UCC the school was able to handle online learning that sustained learning throughout the pandemic period. Makerere College School has now been recognised as a training centre for retooling programmes of UCC in the central region. According to Ms Peace Ruzaza, headmistress of Sesame Girls S.S Kisoro, UCC's empowerment to promote ICT in education as well as promoting digital literacy has greatly influenced not only the students and teachers of the school but the entire community.

"We have had trainings for capacity building of teachers to teach using ICT not only for our school but the entire district," she says. Bweyogerere S.S has 950 students currently and it was very hard for them to access computers yet ICT education was incorporated in the curriculum. "UCC availed the school with 20 computers and networked them," says Ms Amina Nakabuye Musoke head teacher of Bweyogerere S. S. The computers have made teachers' work easier as they can do research.