



YOUTH AHEAD:

Policy Innovations to Create Opportunities for Young People in Africa's Agrifood Systems



1. INTRODUCTION

Uganda has an estimated population of 43 million, of which 51 percent are women. It has the second youngest population in the world after Niger—74 percent of its population is aged 30 years or younger (UBOS 2021, Statista 2023c). Youth, defined as those aged from 15 to 35 years, constitute 34 percent of the country's population (33 percent of males; 36 percent of females) and 62 percent of its working-age population aged between 14 and 64 years. Uganda's economy largely depends on agriculture, contributing almost 40 percent of its total GDP, 60 percent of employment, and over 90 percent of

its foreign exchange earnings (FAO 2021b). Between 2017 and 2021, Uganda's Agricultural Production Index per capita (2014-2016 = 100) averaged 101.7 (FAO 2023a).

Uganda has achieved some of the Malabo Declaration commitments to foster accelerated agricultural growth. For example, the second CAADP biennial report of 2020 showed that Uganda was the only country on track on all measured indicators under the Malabo commitment to end hunger in Africa by 2025 (African Union 2020d).



The third CAADP biennial report in 2022 also showed that Uganda was on track on some indicators under the commitment to end hunger, such as increased access to agricultural inputs and reduced postharvest losses (African Union 2022). Uganda is also making progress in fully supporting social protection initiatives and in being better able to address any disasters and emergencies with food and nutrition security implications. Under the Malabo commitment to halve poverty through agriculture by 2025, Uganda is on track for several indicators, including an annual agricultural sector growth rate of at least 6 percent and at least 5 percent of youth being engaged in new job opportunities in the agriculture value chain. Other on-track indicators for some Malabo commitments include creating an enabling environment for trade and increasing the share of agricultural land under sustainable land and water management, including climate-smart agriculture practices. Uganda is progressing well towards achieving the Malabo Declaration commitments (African Union 2022).

The country has also made progress towards broader economic development. Some indicators of this include improvements between 2000 and 2021 in GDP per capita from USD 258 to USD 964, in life expectancy from 48 to 63 years, in the share of the population with access to electricity from 7 to 45 percent, and a rise in individuals using internet from zero to 10 percent (World Bank 2023a).

Uganda has also significantly reduced levels of unemployment among youth. The most recent National Labor Force Survey of 2021 showed the youth unemployment rate as 14.9 percent–12.8 for males and 17.5 percent for females (UBOS 2021). Uganda continues to strive to reduce youth unemployment by creating more quality and gainful jobs, by increasing access to quality education and training in science, technology, engineering, and math (STEM), through the provision of universal secondary education, and by making biology, chemistry, mathematics, and physics compulsory at the Lower Secondary level (NITI Aayog 2020, Namatende Sakwa and Longman 2013). Successes are being achieved—the percentage of youth that completed upper secondary rose from 36 percent in 2017 to 45 percent in 2021 (ILO 2023b). For the period 2020/21 to 2024/25 under the Third National Development Plan (NDP III), Uganda plans annually to create 100,000 jobs through

agro-industrialization and 520,000 total jobs (NPA 2020).

This country case study provides an in-depth analysis of the institutional and policy innovations and programmatic interventions that have made a meaningful contribution towards youth employment and empowerment in Uganda's agrifood systems.

2. INSTITUTIONAL INNOVATIONS

Uganda has undertaken several institutional innovations aimed at economically empowering youth. This section focuses on institutions whose mandates align with youth empowerment in agrifood systems.

Ministry of Education and Sports (MoES).

Youth education is critical for human resource development in agrifood systems. Uganda's MoES ensures the provision of quality education and sports services through four Directorates:

- Basic and Secondary Education,
- Higher, Technical, Vocational Education and Training,
- Education Standards, and
- Industrial Training.

The Ministry is not only mandated to ensure universal and equitable access to quality basic education for all children through Universal Primary Education (UPE), which was launched in 1997, but also to improve the quality of post-primary education by ensuring the attainment of targeted pass rates in Mathematics, English, Science, and Information Technology. MoES is also mandated to build capacity by supporting national education managers in acquiring and improving their knowledge, teaching skills, and attitudes to plan, monitor, account, and perform managerial functions within educational institutions (MoES 2019a).

Over the past 25 years, many more children have been completing primary school due to UPE. In consequence, the government launched Universal Secondary Education (USE) in 2007 to increase access to secondary education for the growing number of primary school graduates (O'Donoghue, et al. 2018). Uganda was the first



country in sub-Saharan Africa to introduce both a Universal Post-Primary Education and Training (UPPET) program and a USE policy (Kakuba, et al. 2021). Students enrolled in government-aided schools or in low-fee private schools in selected areas with limited access to government-aided schools receive subsidies (NITI Aayog 2020).

Several other actions have been taken to improve the access to education for Uganda's youth. To increase the enrollment of women at the university level, MoES adds 1.5 points to the application score for every female student to increase the chances of their acceptance into public universities (MoES 2013). To increase digital literacy skills, the government established over 1,000 Information and Communication Technology (ICT) laboratories nationwide in 2020. These facilities are expected to result in increased innovations for job creation and economic growth (YKM 2020).

Business, Technical, Vocational Education and Training (BTJET) institutions also provide the economy with qualified and competitive workers, enabling all Ugandans to participate in sustainable growth and poverty reduction (MoES 2023). Given that many young farmers face financial losses due to poor post-harvest handling, the TVET program under the MoES recently introduced a new program, "Agro-processing and post-harvest management" in the eight TVET institutions of Uganda and in one university. This hands-on training program targeting youth will be introduced in other training institutions in the second phase of its roll-out (Tsebeni and Owente 2022).

MoES operates several specialized institutions that ensure quality education for young people, including in STEM. These include the National Curriculum Development Centre and the National Council for Higher Education.

National Curriculum Development Centre (NCDC). NCDC is responsible for developing curricula at all levels of learning in Uganda's educational institutions—primary, secondary, and tertiary levels. It ensures that the curricula meet specific quality standards and are up-to-date, equitable, and relevant to the country's needs. The content of the curricula is determined through research, innovation, and stakeholder involvement. Some of NCDC's key priority areas include supporting increased youth access to STEM courses, the integration of ICT in learning, and remote learning methodologies (NCDC 2022). NCDC has two directorates: the Directorate of Curriculum and Instructional Materials Development and the Directorate of Research, Consultancy, and Library Services.

As part of its mandate, NCDC revised and rolled out a new competency-based curriculum at the lower secondary level in 2020 to better meet the needs of learners, especially enhancing their skills to meet emerging labor market demands (NCHE 2023). The needed skills include ICT, mathematical computing, critical thinking, creativity, collaboration and teamwork, communication, information literacy, and flexibility (Chemonges 2020, Agaba 2023). The new lower secondary curriculum requires the integration of ICT across





the entire curriculum, enabling all students to develop digital skills. The new curriculum is being rolled out through a phased-out approach. To ensure effective teaching of the new content, 90 national facilitators, 1,600 master trainers, and 20,000 teachers of the first level in lower secondary (senior one) were trained in the new curriculum at 27 regional Teachers Training Centres across the country before its initial roll-out (NCDC 2020). The training targeted both government- and private-funded schools, with four or five teachers per school attending. Books for the new course were distributed by NCDC to 6,020 schools. Learner prototype books, teacher's guides, and training manuals were all made available online. In addition, NCDC disseminated the new lower secondary curriculum to a range of stakeholders, including the Parliament and universities. The curriculum framework, which consists of key learning outcomes, values, and generic skills and covers a range of cross-cutting issues, was printed and distributed to all schools.

National Council for Higher Education (NCHE). NCHE was founded by the government in 2001 to establish, manage, supervise, and guide institutions of higher learning in Uganda in creating and delivering quality education. NCHE conducts its duties through several committees, including the Committee on ICT, Research, and Innovation (NCHE 2023, Kasozi 2016). NCHE is the regulator of higher education and is responsible for implementing the Universities and Other Tertiary Institutions Act. NCHE ensures that the quality of higher education in private and government universities—including Makerere University, Gulu University, Kyambogo University, Busitema University, and Nkozi University, among others—by ensuring that these institutions of higher learning continuously improve their curricula so that their graduates are suited to handle current job demands. Through research and innovation, NCHE generates new knowledge to assist Uganda's universities in improving the quality and comprehensiveness of their students' education. In doing so, their graduates will be better able to meet any new or transformed needs in Uganda's labor markets, thereby contributing to the country's economic development.

Science, Technology, and Innovation Secretariat at the Office of the President (STI-OP). The Government of Uganda recognized quite early that prioritizing science, technology, and innovation (STI) is a crucial driver for economic growth. In consequence, it established the Ministry of Science, Technology and Innovation in 2016. The Ministry was originally mandated to offer overall guidance and coordination for scientific research and the development of Uganda's National Innovation System. To give it more relevancy, it later was transferred to the Office of the President and renamed the Science, Technology, and Innovation Secretariat at the Office of the President (STI-OP), led by the Minister of STI.

The STI Secretariat provides leadership, an enabling environment, and resources for scientific research and knowledge-based development for industrialization, competitiveness, and employment creation, leading to a sustainable economy (STI Secretariat 2023). The Secretariat formulates policies, plans, and programs related to STI, determines national priorities in STI, coordinates, implements and evaluates STI programs, monitors public and private sectors' utilization of STI for development and supports private-public partnerships for investments in STI. The Secretariat executes its mission through the Uganda Industrial Research Institute, Uganda National Council for Science and Technology, the Banana Industrial Research and Development Centre (formerly known as the Presidential Initiative on Banana Industrial Development), and Kiira Motors Corporation (STI Secretariat 2023, Nakandi 2023).

Uganda Industrial Research Institute (UIRI). Established in 2002, UIRI's core activities focus on "establishing platforms for value addition; food product development; process design; sourcing technologies; fabrication of machinery; managing processing plants; provision of SME outreach services; and business incubation (UIRI 2023)". The Institute offers platforms for innovation and the application of science and technology, which supports the development of technologies for industrial growth in Uganda. UIRI also conducts research for value-addition that will result in the development of competitive and marketable products created from local raw materials and will promote the commercialization of these research



and development efforts. Hence, the institute links academia and other researchers with the government and the private sector.

UIRI's Business Incubation Centre nurtures start-up businesses by providing equipment and facilities—including physical space, laboratory services, skills training, marketing services, and other business services—from which young people and other entrepreneurs can benefit. Among the skills training offered are meat processing, dairy processing, fruit and vegetable processing, mushroom cultivation and processing, and baking. The business incubation program begins with an open call under which enterprises can submit their business proposals to UIRI. The businesses selected then receive the necessary training in their respective areas of interest before applying to be accepted for incubation. The incubation period at the institute takes up to two years. UIRI has successfully incubated several start-ups that have benefited from its services. Among the notable start-ups benefitting from UIRI's Business Incubation Centre are Mega Milk, the Lira peanut processing plant, Amagara Skincare, and the Mushroom Training and Resource Center (UIRI 2023, Kamalinda 2018).

Uganda National Council for Science and Technology (UNCST). UNCST was established in 1990 as a semi-autonomous government agency. It operates under the Science, Technology and Innovation Secretariat of the Office of the President (STI-OP). It is mandated to advise the government on policy issues to promote science and technology in Uganda, to develop and implement policies and strategies to integrate science and technology into national development policies, and to coordinate and guide research and development efforts in Uganda (UNCST 2023). As of 2021, UNCST's strategic direction included regulating all aspects of STI, translating STI policies into regulations and standards that can effectively guide the operations of all STI activities in Uganda, and monitoring and evaluating STI efforts. UNCST also supports professional science and technology institutions in creating an innovative and enabling environment for their scientists. This includes providing continuing professional development opportunities in the sector (Ongol 2022).

UNCST recognizes that frontier technologies are converging to produce new combinations of

disparate technologies, resulting in the growth of various sectors—for instance, satellite and drone mapping can be used to develop effective, efficient, and sustainable irrigation, fertilizer, and pesticide systems through employing precision agriculture techniques in Uganda (Ongol 2022). By utilizing science, technology, and innovation in various sectors, including agriculture, such efforts will contribute to Uganda achieving its aim of transforming from a peasant nation to a modern and prosperous one by 2040.

As one example of such efforts, the Government of Uganda, through UNCST, is implementing the National Science, Technology, Engineering, and Innovation Skills Enhancement Project (NSTEI-SEP) to enhance the technological and skill capacity of Ugandans. The project has three components—the National Institute of Technopreneurship in Kiruhura district, the Technology Innovation and Business Incubation Centre in Mukono district, and the NSTEI Technical Service Company offering construction machinery and other equipment for rent. The project aims to re-tool graduates, artisans, technicians, and engineers by equipping them to undertake various infrastructural works and enhance their technological and skill base. This upskilling aligns with the objectives of the Third National Development Plan (NDP III). Annually, approximately 1,500 trainees, mostly youth, will undergo competitive selection to participate in training under nine technology areas—agricultural mechanization, automotive technology, metallurgy (welding and fabrication), industrial and mechanical technology, construction machinery technology, civil engineering technology, electronic and electrical research and development, finished leather products processing technology, and textile design technology. The project is expected to create over 12,000 direct and indirect jobs (Amawulire 2022, UNCST 2021).

Banana Industrial Research and Development Centre (BIRDC). Formerly the Presidential Initiative on Banana Industrial Development, BIRDC was established in 2005. It aims to support rural farmers with access to science-led banana processing and value-addition enterprises for increased income generation through rural technology business incubators and industrial technology park models. The Center focuses on adding value to bananas, giving numerous job opportunities to youth as processors, distributors, and retailers. For example,



BIRDC commissioned a distribution program, dubbed Tuku Tuku, as it centered on three-wheeled motorcycles, which has employed many youths from the on-farm production of bananas to their processing, marketing and distribution. Moreover, BIRDC has a 24-acre banana plantation that is used to train farmers on improved banana production and processing methods (Nakandi 2023, Samilu 2023, BIRDC 2021).

Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). MAAIF is the ministry responsible for increasing Uganda's agricultural production, food security, farmers' income, and exports of food produce. This Ministry oversees, formulates, reviews, and implements policies and enforces regulations and laws across agrifood value chains. Additionally, MAAIF is mandated to regulate the use of farm inputs, strengthen human and institutional capacity, mobilize resources for the effective delivery of agricultural services, and develop and promote national, regional, and international collaboration in the agriculture sector (GoU 2023).

MAAIF has four Directorates:

- Animal Resources,
- Crop Resources,
- Fisheries Resources, and
- Agricultural Extension Services.

The Ministry executes its mission through several affiliated agencies:

- the National Agricultural Advisory Services,
- the National Agricultural Research Organisation,
- the Dairy Development Authority,
- the National Animal Genetic Resource Centre and Data Bank,
- the Coordinating Office for the Control of Trypanosomiasis in Uganda,
- the Uganda Coffee Development Authority, and
- the Cotton Development Organization.

Here we discuss three of these—those for agricultural advisory services, agricultural research, and dairy development:

National Agricultural Advisory Services (NAADS). NAADS is a semi-autonomous body established in 2001 by the NAADS Act to increase agricultural productivity by ensuring efficient and effective delivery of agricultural advisory services. NAADS aims to contribute to increased commercialization and competitiveness of Uganda's agricultural production and agro-processing or other value-addition for improved food security and household incomes. To achieve this goal, NAADS seeks to increase access by farmers to critical knowledge





and quality inputs, to improve postharvest handling and storage, to increase agro-processing and other value-addition efforts, and to improve service delivery through strengthened coordination (NAADS 2020a).

To increase household incomes and export earnings, NAADS has developed interventions aimed at increasing production and productivity levels for several priority agricultural commodities. This is done through procurement and distribution of planting materials to farmers in various districts. The strategic crops include tea, citrus, mango, pineapple, apple, and cocoa. The interventions also target socio-economically vulnerable categories, particularly youth, women, persons with disabilities, and older persons, who receive planting materials for other income-generating crops, including passion fruit, ginger, grape, onion, garlic, and mushroom (NAADS 2020b).

In 2022, NAADS trained 540 youth leaders in agriculture across the country in dairy farming, agricultural business management techniques, and cultivating a business mindset. The training included a hands-on experience on the farm to understand the different breeds of dairy cattle and what feed and treatments the animals require. Overall, the youth training aimed to enhance household food security and income for the youth leaders and improve their livelihoods, while also contributing to agricultural sector development. After the training, each trainee received a dairy heifer. Given the multiplier effect of the heifers, the youth were encouraged to demonstrate to their peers how to generate income from farming as a business (NAADS 2022).

National Agricultural Research Organization (NARO). NARO was established as a corporate body by the National Agricultural Research Act of 2005. NARO comprises a Secretariat, a Governing Council, and 16 Public Agricultural Research Institutes spread across the country. Its mission is to innovate for sustainable agricultural transformation. NARO is mandated to coordinate and oversee all aspects of public-funded agricultural research in Uganda, including on crops, livestock, fisheries, forestry, agro-machinery, natural resources, and socio-economics (NARO 2023a).

NARO aims to increase total factor productivity and access to agricultural research products and services for inclusive agricultural growth across

Uganda. NARO's strategy involves attracting youth to agriculture. NARO has designed a youth empowerment action plan which operates starting from the primary school level to the university level. The youth empowerment action plan includes activities such as an annual youth writing competition in agriculture and setting agriculture questions for testing at all educational levels (NARO 2023b).

NARO also provides training and up-skilling of youth in selected enterprises like horticulture, rabbit production, and piggery enterprises. These are all aimed at enabling young people to become successful agricultural entrepreneurs. NARO set up a youth incubation hub at the Mukono Zonal Agricultural Research and Development Institute (ZARDI), which serves to incubate young people's ideas into products out of which the youth can create industries. Some youth from the incubation hub have set up processing industries that make use of groundnut, avocado seed, cassava, and sweet potato. NARO is also supporting youth in agriculture by reducing the drudgery of many agricultural tasks through agro-mechanization. Because of the technologies developed by NARO, such as shellers for maize and groundnut or rice threshers, the time taken to shell or thresh these crops is much shorter than if done by hand, attracting more youth to agriculture (NARO 2023b).

NARO recognizes that youth and women need to catch up in accessing improved agricultural technologies and extension services. In mid-2023, the organization launched the NARO Youth Empowerment project, a three-year intervention spearheaded by Mukono ZARDI. The project is working to enhance the uptake of NARO technologies among youths, particularly technologies for chicken, vegetable, and pig production. The project is also being implemented in the Bunyoro sub-region, where Bulindi ZARDI implements it. In partnership with Gudie Leisure Farm, the project has established Village Entrepreneurship and Learning Associations and farmer service centers to accelerate youth adoption of the target technologies.

Dairy Development Authority (DDA). A semi-autonomous agency established by the Dairy Industry Act of 1998 to develop and regulate the dairy industry in Uganda, DDA's mission is to increase the productivity and competitiveness of the dairy sector, enhancing its contribution to



the health and wealth of all Ugandans. DDA is mandated to contribute to economic development and improved nutritional standards in Uganda by providing development and regulatory services that will ensure increased production and consumption of milk, as well as a sustainable and profitable dairy industry sector (DDA 2023).

To contribute to job creation among youth, DDA conducts formal training and skills development in the dairy sector. In 2018 and 2019, DDA trained almost 5,000 people country-wide, including 1,230 youth, in how to improve milk quality and increase dairy production and productivity for income generation (DDA 2019). The training topics included breeding technology, farm infrastructure, disease control, feed production, dry season feeding, hygienic milk production, dairy registration, milk testing, dairy regulation and standards, group formation, and management.

DDA also trains dairy stakeholders, most of whom are youth, in professionalization at downstream levels of the dairy value chains, such as in the production of yogurt, butter, ice cream, and other dairy products, as well as through providing training in product quality control and assurance. The Entebbe Dairy Training School coordinates this training. In 2018 and 2019, more than half of the over 500 trainees were youth. Trainees were followed up with after completing their course to ensure mentoring, continuity, and utilization of the skills they acquired to support job creation (DDA 2019, 2021).

Food Technology and Business Incubation Center (FTBIC). Established in 2008, FTBIC has been financially supported since 2010 by the Government through the Presidential Initiative for Value Addition to equip the incubator with laboratories and processing lines (UNCTAD 2020, Makerere University 2014). FTBIC is housed at the School of Food Technology and Bioengineering of Makerere University. It is the first university-based technology and business incubator in East and Central Africa. The center was established to develop new value-added food businesses, especially those reliant on local produce and using techniques emerging from research conducted at Makerere University. It also trains students in practical and entrepreneurial skills. Its mission is to nurture and sustain food and allied businesses, especially among women and young graduates, by

providing innovative research, practical solutions, linkages, entrepreneurship development, and outreach. These efforts are to lead to wealth creation and nutrition enhancement (Makerere University 2014, Muyonga 2014).

Young people—both students and fresh graduates—can benefit from FTBIC. The Center offers a platform for them to venture into entrepreneurship by providing access to processing facilities and technical support to boost their production, marketing, and business management capacity. The center offers various services, including processing infrastructure and space; enterprise, outreach, and skills development; research and food product development support; food analysis; and technical advice on quality management, processing, and packaging. Examples of the types of processing supported include meat, dairy, fruit and vegetable, extrusion processing, and baking. The center's mobile fruit and vegetable processing plant facilitates the processing of produce in fruit and vegetable producing communities across Uganda (Makerere University 2014, Muyonga 2014).

By 2015, the center had facilitated 20 food processing start-ups and with 41 new products has expanded the variety of domestic agro-based food products on the market. It has supported the creation of over 100 direct jobs in producing and marketing value-added foods and over 500 jobs for raw material suppliers (Muyonga 2014). In 2019, a new facility funded by the Presidential Initiative on Science and Technology allocated 1,200 m² of the total 7,000 m² new space to FTBIC. This doubled the space used by the center (Wamai 2019) and will enhance FTBIC's capacity to support more young people in agrifood businesses. However, a continuing challenge is the overall need for more support for scaling-up these new businesses once the start-ups emerge from the incubator. This challenge includes limited access to credit or affordable processing space to meet high market demands.

Consortium for enhancing University Responsiveness to Agribusiness Development (CURAD). An autonomous agribusiness incubator established in 2012 by Makerere University in partnership with the National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE) and NARO, CURAD is a public-private partnership initiative. It is one of



the six agribusiness incubators in Africa started and supported by the African Union under the management of the Forum for Agricultural Research in Africa (FARA) (CURAD 2023a).

CURAD has three incubation centers (CURAD 2023b):

- Rural Agribusiness Incubation Hub—juice, water, and other beverage production and processing,
- Coffee Entrepreneurship Bureau of Uganda—coffee value-addition for both local and international export, and
- CURAD Agri-park—processing fruits and vegetable for export.

The incubator supports skilled and unskilled young students, graduates, farmers, farmer organizations, agricultural entrepreneurs, start-ups, and small and medium-sized enterprises to grow and develop their business ideas. Its focus is to generate innovative young entrepreneurs who can increase their incomes and create jobs for their peers in the agrifood sector. Over 420 youth start-up enterprises have been supported technically and financially before they went on to become well-established businesses and created over 6,300 jobs. Close to 20,000 smallholder farmers generate income as raw materials suppliers to these agribusinesses (CURAD 2023c).

National ICT Innovation Hub. Uganda's National ICT hub was established in 2017 through the National ICT Initiatives Support Programme and is located at the Uganda Institute of Information and Communication Technology (MoICT & NG 2023a). The hub promotes digital solutions to local challenges in Uganda and aims to increase entrepreneurship and digital employment. It hosts 29 companies and runs seven programs—Data Ladies, Leap, MTN ACE, 3D Computer Animation, Founder's Institute Training, ICT Bootcamp, and EduTech (National ICT Innovation Hub 2022). Additionally, the National ICT Innovation Hub has initiatives that can be utilized by young people, including hub-spoke initiatives, digital skilling and training, infrastructure and shared services, mentorship, and business development and advisory services. The Hub has a target of within 1,000 days engaging with 1,000 start-ups facilitated by a network of 1,000 mentors.

Presidential Zonal Industrial Hubs. The Hubs were launched in 2022 in 12 districts. By the end of 2023, there were 20 regional industrial hubs (Karungi 2023, Nafula 2022). The industrial hubs' aims are to reduce youth unemployment rates due to their lack of skills and, hence, to help transition youth from being job seekers to being job creators. Enrolled youth undergo six months of training. Each hub is expected to enroll more than 300 jobless youth per semester to train them in farm management, baking, plumbing, electronics, welding, and similar skills.

The hubs also focus on value-addition for the best crops in their locations—those that would yield far more income if processed than if sold in their raw, unprocessed state. Youth are given access to the machinery in the hubs to transform raw materials into high-value products that they can sell to get more income. Some hubs also employ the four-acre model in which youth are trained in how to generate sustainable income streams off of small pieces of land using modern agricultural production and processing methods. From the initial 12 industrial zones, over 2,500 youth graduated in 2023 (Karungi 2023, Nafula 2022, Monitor 2023).

Youth Go Green. This youth-led umbrella organization was launched in 2014 by the President, with the Speaker of Parliament as its Patron. Its mission is to empower and engage young people to pursue low-carbon socio-economic development pathways. The membership of Youth Go Green consists of youth engaged in climate change, resilience, green growth, environment protection, SDGs, and youth empowerment activities in Uganda and other African countries. In Uganda, Youth Go Green operates in most districts to promote green jobs, environment conservation, and agriculture among youth. The organization has six thematic areas:

- Climate change adaptation and mitigation,
- Biodiversity conservation,
- Green growth,
- Energy transition,
- Innovation and advocacy, and
- Youth skilling and empowerment.



Some of the activities under the organization include launching the Go Green campaign in different regions and encouraging youth to join and sign pledges as ambassadors to grow trees (YGGU 2017).

In 2017, Youth Go Green organized the first African Conference of Youth on Climate Change and Its Linkages with the Sustainable Development Goals (SDG). The conference convened more than one thousand youth from across the continent in Uganda to discuss challenges, opportunities, and prospects for youth to advance solutions to climate change and biodiversity conservation and to achieve the SDGs. The youth organization has also received funding for the “Innovative Youth Engagement in Waste Management” project in Kampala and Gulu.

Youth Go Green has partnered with several government institutions to fulfill their mission. For example, the organization partnered with the Parliament of Uganda to undertake climate change and forestry initiatives and with the Uganda National Roads Authority to plant indigenous and ornamental trees on road reserves. Most notably, its members have partnered with the National Forestry Authority to assist in the restoration of the degraded Central Forest Reserves and other degraded areas across Uganda—over 45 million trees of indigenous species and fruits have been planted country-wide.

To increase public awareness of climate change mitigation and adaptation measures and to expand waste recycling for charcoal briquette production, Youth Go Green launched Go Green clubs in primary and secondary schools and chapters in universities across Uganda. The organization also engaged local communities in various parts of the country, including youth, women, and other vulnerable groups, in distributing fruit and tree seedlings to schools and community tree growers and in campaigns to increase awareness on land restoration, biodiversity conservation, and climate-smart agriculture practices. Youth Go Green also conducted sensitization on environmental and climate change laws, policies, and strategies to enhance community resilience for improving food security and sustainable natural resources management (YGGU 2017).

3. POLICY INNOVATIONS

Science Education Policy. The shortage of agricultural researchers, doctors, engineers, chemists, and other science-related professionals in Uganda prompted the formulation of the Science Education Policy in 2005. The policy made science subjects—biology, chemistry, mathematics, and physics—compulsory at OLevel. The Government further introduced incentives for students who pursued university-level science courses by allocating 75 percent of all Government scholarships (all tuition covered) towards science-related studies at public universities and other





tertiary institutions in Uganda (Namatende Sakwa and Longman 2013).

To support the policy and ensure effective teaching and learning of science subjects, the government, through MoES, provided science laboratory materials to over 1,340 underserved schools. Additionally, science textbooks were supplied to public secondary schools, and laboratories were constructed in various schools. To further facilitate quality teaching of sciences, the Secondary Science and Mathematics program was established to improve teaching (Rukundo and Bashaija 2022).

Technical Vocational Education and Training Policy (TVET). The Government of Uganda appreciates that technical and vocational skills are vital in solving societal problems and, thus, contribute to economic transformation. TVET is the part of Uganda's education system that provides courses and training programs related to employment. TVET providers, such as agricultural colleges and universities, offer these. TVET provides young people with a transition from secondary education to work. Upon studying technologies and related sciences, general education coursework, and knowledge, skills, and attitudes relevant to specific sectors, youth with this additional training can then offer their highly skilled labor within Uganda's labor markets (MoES 2019b).

The shortage of skills in the Business, Technical, Vocational Education and Training (BTNET) sub-sector led to the formulation of the Technical and

Vocational Education and Training (TVET) policy in 2019. MoES developed the TVET policy under the Uganda Skills Development Project, which facilitated the review of the then current laws and the generation of an appropriate legal framework for how TVET might contribute to Uganda's socio-economic transformation. Therefore, the policy provides a new direction for the delivery of TVET as it involves the review of related laws, such as the BTNET Act 2008; the Education (Pre-Primary and Post-Primary) Act, 2008; and the Universities and Other Tertiary Institutions Act, 2001 (MoES 2019b, 2020). The TVET policy provides a framework for training a highly skilled and competitive workforce. It addresses Uganda's skills shortage by ensuring the training of its youth with relevant skills for increased productivity, labor market efficiency, and technological readiness, instead of just providing training so that they can acquire educational certificates.

The TVET policy is expected to form a world-class TVET system in Uganda that delivers highly skilled graduates who can effectively pursue employment and entrepreneurship opportunities and contribute to national development. This will involve efforts to promote TVET among young people by highlighting how the skills TVET provides will permit trainees to increase their productivity and incomes in formal, non-formal, and informal settings. In parallel, business incubation and innovation centers will be established in TVET institutions. Scholarships and other subsidies will be provided to trainees to ensure the affordability





of TVET. Research and innovation efforts will be boosted in all TVET institutions, and TVET curricula will be reviewed and expanded based on occupational standards set by the established employer-led Sector Skills Councils. The policy encourages employers to offer hands-on training opportunities to TVET trainees through internships, apprenticeship centers, and industrial attachments (MoES 2019b).

Funding for the TVET system in Uganda comes both from the public budget and from private households through training fees. The policy proposed strategies for adequate and sustainable TVET financing, such as the establishment of a Skills Development Fund, increased government budget allocations to TVET institutions and activities, and a TVET Directorate in MoES to coordinate and implement employer-led TVET delivery (MoES 2019b, 2020, UNESCO 2021).

Uganda Vision 2040. To achieve socio-economic transformation for sustainable development and prosperity, the Government of Uganda approved the Comprehensive National Development Planning Framework in 2007. This framework outlines the principles and guidelines for developing national and decentralized development plans for a shared national development vision (NPA 2009).

Uganda Vision 2040 was developed to operationalize the vision statement “A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years”. The National Planning Authority managed its formulation. The vision is to be implemented through National Development Plans, Sector Investment Plans, and Annual Workplans and Budgets (NPA 2009).

Uganda Vision 2040 is conceptualized around strengthening the fundamentals of the Ugandan economy to harness the numerous growth opportunities in the country for various sectors, such as agriculture, ICT, industrialization, trade, and business (NPA 2013). Uganda identified inadequate human resources as one of the major challenges to its economic development. Addressing this presents an opportunity for youth to support Uganda’s economic development, while also reducing unemployment rates among young people. Thus, Vision 2040 emphasizes providing youth with globally competitive skills to attract foreign direct investment and good wages, especially in the science, technology, engineering, and information fields. These skills can be built

through the efficient and effective implementation of National Development Plans.

National Development Plan III (NDP III). The National Development Plan (2020/21–2024/25) is the third in a series of six five-year National Development Plans to deliver Uganda’s Vision 2040 (NPA 2020). Among the challenges grappled with in NDP III is the inadequate creation of quality and gainful jobs, especially for youth. Some of the achievements expected by the end of the five-year plan period include:

- Reduce the poverty headcount rate for Uganda from 21.4 to 18.5 percent,
- Reduce youth unemployment to 9.7 percent through the creation of 512,000 jobs annually,
- Reduce the share of households whose livelihoods mainly depend on subsistence agriculture from 69 to 55 percent, and
- Increase the annual growth rate of the agricultural sector from 3.8 to 7.0 percent and that of the industrial sector from 6.1 to 8.1 percent.

Other expected achievements of NDP III that provide opportunities for growth in business and youth employment across agrifood value chains include affordable electricity for all processing and manufacturing enterprises, increased access to electricity from 21 percent of households to 60 percent, and increased broadband services coverage from 41 to 90 percent of the population. NDP III expands on Vision 2040, with sector-specific targets for agro-industrialization, human capital development, digital transformation, innovation, and technology development and transfer.

National Youth Policy. Youth are vital human capital for technological innovation and economic development. However, most of Uganda’s youth reside in rural areas, and their livelihoods mainly depend on agriculture. Youth face numerous challenges—poverty, unemployment, and diseases—partly due to a lack of opportunities to acquire the practical skills needed in the labor market and poor access to health and social services. These led to the need for new strategies to implement the Uganda National Youth Policy.

Uganda originally adopted a National Youth Policy in 2001, led by the Ministry of Gender, Labour and



Social Development in consultation with youth-focused agencies, youth leaders, and young people themselves (MoGLSD 2001). The policy was formulated to improve the lives of Uganda's youth by unlocking their potential for sustainable wealth creation and development. Due to changing needs among youth, the National Youth Policy 2001 was revised into the National Youth Policy 2016, which more accurately considered the heterogeneous nature of Uganda's youth. To operationalize the 2016 policy, the National Youth Action Plan (NYAP) was developed in 2016 (MoGLSD 2016). NYAP focuses on strengthening youth programming for capacity building and increasing the quality and quantity of job opportunities to support youth gainful participation in Uganda's economic development.

Youth, who are primarily engaged in subsistence agriculture, may need more knowledge, skills, and tools to enable them to participate effectively in agribusiness. To address these bottlenecks, NYAP advocates for the mobilization and sensitization of youth to increase their engagement in income-generating agricultural opportunities along agrifood value chains and access to improved agricultural inputs, agricultural extension services, financial services, and markets. The action plan also promotes the establishment of youth farmers' cooperatives, agricultural development banks, and regional demonstration farms for enhanced youth skills enhancement. NYAP identified several priority action areas to effectively unlock youth potential for sustainable wealth creation and development. These include (MoGLSD 2016):

- Sustainable livelihoods, employment promotion, and enterprise development: Given an enabling environment by the government for stakeholders to engage in youth livelihood programs, the policy supports youth capacity building. Capacity should be built in youth through, for example, skills training in entrepreneurship, innovation, and marketing. Doing so would increase youth job creation and youth-run enterprise development. Additionally, NYAP advocates for new legislation to require businesses to employ set quotas of local youth and provide tax incentives for youth-led businesses. The government would facilitate financial support for youth enterprise programs by developing youth-

tailored credit products in existing financial institutions and establishing a youth-focused trust bank.

- Education, training, and capacity building: NYAP aims to increase youth's access to quality and relevant formal and informal education. It also promotes skills development through practical vocational training, internships, and apprenticeship schemes.
- Information and communication technology: Improve youth's skills for increased adoption of ICT to contribute to Uganda's socio-economic development.
- Youth and health: The health of Uganda's youth is critical for productive human resource development. Therefore, NYAP advocates for youth-friendly health services, such as for sexual and reproductive health, incurable diseases, and STD/HIV prevention, care, and treatment.
- Youth civic involvement, participation, and governance to ensure increased youth representation and participation in critical decision-making positions.

National Strategy for Youth Employment in Agriculture (NSYEA). In 2017, the Government of Uganda formulated NSYEA to provide a strategic direction for economically empowering youth in Uganda's agricultural sector (MAAIF 2017). The vision of NSYEA is to economically empower Uganda's youth through gainful employment in agriculture. The strategy seeks to attract, support, and retain youth employed across agrifood value chains—from production to processing to marketing and retailing. Doing so would also result in increased agricultural productivity, reduced postharvest losses, and increased value addition in the country overall. NSYEA considers the economic needs of youth in agriculture broadly, but also targets specific interventions for youth aged between 14 and 17 years, especially, school dropouts who have not been well targeted under other government programs. One of the key tactical objectives of NSYEA and the Agro-Industrialization Programme of NDP III is supporting youth entrepreneurship through localized small-scale agrifood value chain development to boost agricultural production, productivity, and efficiency, to expand processing



activities for value-addition, to create good-paying jobs, and to increase exports (NPA & MAAIF 2021).

NSYEA implementation follows five themes, all essential for fostering the gainful involvement of youths in the agrifood sector (MAAIF 2017). These are:

- Ensuring an enabling environment for youth employment in agriculture,
- Supporting youth-oriented agricultural extension,
- Improving youth education and learning,
- Supporting youth entrepreneurship, and
- Adaptation to and mitigation of agribusiness risk and uncertainties.

New government programs, such as the Parish Development Model (PDM) (MoLG 2022), are aligned with NSYEA. Specifically, two PDM pillars are congruent with NSYEA—agriculture value chain development, which supports the creation of employment opportunities at production, storage, processing, and marketing levels; and mindset change and cross-cutting issues, including gender and environment. PDM is focused on organizing development initiatives at the parish level, the second-lowest political-administrative unit in Uganda, comprising between five and ten villages. To ensure that PDM is relevant to the aspirations of youth in these villages, the parish secretary for

youth affairs is a member of the seven person local committee—the Parish Development Committee—charged with implementing the PDM. PDM is designed to create wealth and employment opportunities, especially for youth, and to increase household incomes (MAAIF 2017, MoLG 2022).

4. PROGRAMMATIC INTERVENTIONS

Youth Livelihood Programme. The Government of Uganda launched YLP in 2014 in response to high youth unemployment and poverty. The program is implemented by the Ministry of Gender, Labor, and Social Development (MoGLSD), through the existing local government structures. The program aims to empower youth to harness their social and economic potential and increase self-employment opportunities and income levels. The program strives to provide youth with entrepreneurship, life, and marketable vocational skills, knowledge and information for a positive mindset change, tool kits, and financial support for self-employment and job creation (MoGLSD 2022). YLP has three components:

- Livelihood Support through which youth are provided assets for income-generating enterprises, such as dairy production, high-value crops, poultry, piggery, aquaculture, animal traction, agro-forestry, postharvest handling, value addition, and trade. About 70 percent of YLP resources are dedicated to this component.





- Skills Development includes training in marketable livelihood skills for creating self-employment opportunities, including agro-processing, baking, and cooking, among others; and promoting innovation using ICT.
- Institutional Support for project implementation, transparency, accountability, and anti-corruption oversight.

MoGLSD provides technical guidelines and supports capacity building, financing, and overall coordination for YLP as the local governments implement it. YLP currently funds skills development projects and income-generating activities initiated by youth groups in all 112 districts of Uganda with a budget of about USD 100 million for five years (MoGLSD 2022). One of the pillars of YLP is to leverage private resources for the program and reduce pressure on public resources. One way this is done is by revolving funds for youth groups to facilitate funding for more groups and better ensure their sustainability. This involves, in part, revolving funds that are used for soft loans granted on youth-friendly terms—such as, for example, no interest being charged if the loan is repaid within one year (MoGLSD 2019).

By the end of 2019, over 240,000 youth (46 percent female) had been supported through over 20,000 youth projects. About one-third of the projects involved the agriculture and agro-processing sectors (MoGLSD 2019). YLP has faced some challenges, such as low or untimely repayment of loans from youth groups and corruption by local government leaders (MoGLSD 2019, Makumbi 2018). However, lessons learned from these

challenges have been incorporated into the current phase, which runs to 2023/24, including more effective and timely repayment plans and the applications of sanctions on or prosecution of corrupt leaders (MoGLSD 2019).

Presidential Youth Skilling Program. This program was launched in 2017 to empower underprivileged youth in Kampala by expanding their employable skills. The initiative initially targeted girls, but started to include boys in 2019. There are currently nine centers for program. Among the vocational skills offered are bakery and confectionery, mechanics, metal fabrication, electronics, carpentry, embroidery, shoe-making, and construction. The program consists of six months of training. Upon completion, the program trainees are given an exam. If successful, they are certified through the Directorate of Industrial Training. Over 35,000 students have been enrolled in the program since its inception. Many youths have obtained or created jobs based on the skills they acquired. Close to 17,000 beneficiaries graduated from the program in October 2023, a ceremony presided over by the President of Uganda, who pledged to further support the graduates with start-up capital (Chimp Reports 2023, UBC 2023).

National Science Week. The Government of Uganda annually conducts a National Science Week to celebrate science, technology, and innovation in commemorating World Science Day for Peace and Development held on 10 November (STI-OP 2023). Through the Uganda National Council of Science and Technology, the government annually holds the Uganda Science Innovators' Award





during Science Week (GCIC 2021). The awards aim to inspire young innovators to activate and exploit their abilities to contribute to technological development in the country, as well as to celebrate the innovation efforts of Ugandans. The event focuses on exhibiting to Ugandans, especially the youth, the roles and benefits of science, technology, and innovation towards facilitating market expansion and wealth creation in Uganda. The competition attracts young people, including secondary school students, who exhibit their innovations in agriculture and in employing ICT tools. Youth also participate in discussions, poetic recitations, and quizzes to test their knowledge and abilities on scientific innovations.

As of 2021, the awards have been categorized under six themes—Agro-security, Pathogen economy, Engineering, Mobility, Beauty and apparel, and Digital economy. Two special awards have recently been added—the National Woman Innovator’s Award and the Uganda Science Ambassador Award. Two winners are chosen for each award—one for individuals above 18 years of age and one for those under 18 years. The awards in Agro-security are given for innovations in agro-processing, agribusiness, soil conservation, agriculture technologies, food preservation, and safety applications with practical models, devices, or applications. Winners under the Agro-security theme have included the designers of a locally made milk processing machine, an electric tractor, and a new way of preserving a local green

leaf sauce, *malakwang*. The competitions have increased interest and positive attitudes towards science among youth, as is evident in the time and professionalism the youth give in preparing to exhibit their innovations at the Science Week events (Mugalu 2010, Emorut 2023).

Youth Empowerment Through Agriculture (YETA).

Running from 2015 to 2020, the YETA project was part of the Mastercard Foundation’s Youth Forward Initiative that was implemented in collaboration with GOAL, the Overseas Development Institute, Solidaridad, Global Communities, and the National Cooperative Business Association CLUSA International (NCBA CLUSA). The YETA Consortium worked with various producer organizations and youth associations to reach out to unemployed, underemployed, at risk, or out of school youth to provide them with training, mentorship, and job opportunities (NCBA CLUSA 2021). The project enrolled youth from four districts in northern Uganda—Kole, Kiryandongo, Dokolo, and Masindi. YETA trained youth in numeracy, literacy, and general life skills. Specific technical skills training was provided in agriculture, business, entrepreneurship, and management. All trainees received information on sexual reproductive health. Over 21,000 youth were trained in agribusiness skills and over 26,000 youth businesses were established. YETA showed that such initiatives can significantly empower youth in Uganda’s agrifood sector and reduce youth unemployment.





Stimulating Agriculture for Youth Employment (SAYE). A partnership between Heifer International and the Mastercard Foundation, the SAYE project was launched in 2023 to create 33,000 new jobs for over 250,000 young people over six years (Heifer International 2023). The project targets youth in 11 districts of the Busoga sub-region in Uganda—Jinja, Mayuge, Iganga, Kamuli, Kaliro, Namutumba, Bugweri, Luka, Buyende, Bugiri, and Namayingo districts—who are involved in agriculture. The project aims to transform the region’s agricultural market system by including more young people in decent employment within agricultural value chains. The project will establish youth-led agribusiness hubs, while local project partners will support the youth in improving their access to financial support and skills training, such as ICT and climate-smart agriculture solutions, among others. The project plans to reach 4.3 million Uganda youth beneficiaries, especially young women, by 2030, providing them with the skills and resources necessary to generate income through decent and sustainable employment across agrifood value chains.

Uganda Skills Development Project, 2016-2020 (USDP). Through the Ministry of Education and Sports, the Government of Uganda initiated USDP to boost the Business, Technical, Vocational Education and Training (BTJET) sector, given its potential to reduce youth unemployment and provide the largest number of skilled people to contribute to Uganda’s economic development (MoES 2019c). Before the project’s initiation, the BTJET sector faced challenges that included limited relevance to economic growth, low quality of skills trained, and limited access to training. The project started in October 2016 and was implemented by the Private Sector Foundation Uganda. It focused on training programs to support the development of important skills in the key priority sectors of agriculture, including agro-processing, and manufacturing and construction, as stipulated in Vision 2040.

To advance the quality of TVET delivery in Uganda, four colleges were transformed into centers of excellence through new partnerships established under USDP with recognized international TVET providers. For example, Bukalasa Agricultural College partnered with Dalhousie University of Canada to offer competence-based training in agricultural trades. As of 2019, 71 new

internationally accredited technical and vocational courses had been developed across the 16 TVET Institutions facilitated by USDP. The students underwent high-quality competency-based training, with 70 percent of the training involving practical lessons to gain experience and skills using the same equipment used by industry. The remaining 30 percent of the training focused on theoretical lessons. With funding from USDP, Bukalasa Agricultural College underwent a complete revamp. This included the installation of a state-of-the-art library, layer, broiler, and pullet barns, piggery and zero grazing units, a feed mill, a milk processing house, a toilet and laundry structure, and a generator house. By the end of the project, over 82,000 beneficiaries had enrolled in the BTJET programs, surpassing the project’s target by almost three-fold (MoES 2019b, MoES 2020). Many of the program graduates went on to get employed or start businesses. More than 1,600 jobs were created, and the project awarded 885 grants worth USD 17.8 million to small, medium, and large companies (PSFU 2022, MoES 2019c).

Other key achievements from the USDP project include the development and approval of the TVET policy, the development of 25 competency-based curricula, the establishment of Sector Skills Councils in the agriculture, manufacturing, and construction sectors, the creation of a TVET Management Information System, and the seating of a national TVET council. Following the project’s success, the sector-specific approach is being scaled up to meet the skills demands of the growing Ugandan economy. A commitment has been made that 46 percent of the MoES budget will be directed to skills delivery through TVET, effective from FY 2021/22 (MoES 2019c).

Agro-industrialization Programme (2020/21-2024/25). This program is one of the critical priorities for improving the livelihoods of Ugandans, as stipulated in NDP III (NPA & MAAIF 2021). It aims to increase the agricultural sector’s growth rate from 3.8 to 6.0 percent through increased agricultural production and greater commercialization of agro-processing activities. To increase agricultural productivity, the program will increase access to and use of digital technologies, water, and mechanization in agriculture, increase agricultural research efforts, and reduce postharvest losses. The program will also strengthen the agricultural extension system, support agriculture technical



and vocational training for youth and farmers, and improve the curriculum so that the qualifications trainees receive at the end of their training are accredited. To boost agro-processing, the program seeks to increase young people's access to processing and storage equipment and to establish more processing infrastructure nationally.

The program has several targets (NPA 2020, NPA & MAAIF 2021):

- Increase the agricultural sector growth rate from 3.8 percent to 6.0 percent,
- Create more than 100,000 jobs along agro-industrial value chains,
- Improve labor productivity in the agricultural sector from USD 2,200 to USD 3,100 per worker per year.
- Improve household food security so that 90 percent of Ugandans have consistent access to the food they require,
- Reduce the share of households dependent on subsistence agriculture for their primary source of livelihood from 69 percent to 55 percent,
- Reduce post-harvest losses for priority commodities from 37 to 15 percent,
- Increase the export value of processed agricultural commodities almost three-fold from USD 0.9 billion to USD 2.7 billion, and
- Cut almost by half to USD 500 million per year the value of imports of imported cereals and cereal preparations, vegetable fats and oils, and sugar.

The Agro-industrialization Programme interventions include:

- Strengthening agricultural research and development,
- Increasing access to and the affordability and usage of fertilizers and agricultural machines,
- Increasing the establishment and coverage of irrigation systems,

- Expanding storage, processing, and post-harvest handling infrastructure, such as silos, warehouses, cold rooms, and dryers, and
- Increasing agricultural market access, especially for youth, women, and persons with disabilities.

The program targets 4,000 farmer cooperatives with youth and women membership to receive small-scale on-farm equipment for storage, processing, and value-addition. Dairy farm equipment and training in its use will be provided to 250 youth and women farmer cooperative societies. Training in business management, value addition, and meeting agricultural product quality standards will be provided to 40,000 beneficiaries. The program will also provide incentives to financial institutions to increase their lending to farmers, especially to women and youth, and to invest in the scaling-up of agribusiness incubation and accelerator programs. To ensure that what youth are taught in BTNET institutions is adopted and utilized by farmers, the training institutions will be incorporated into the agricultural extension system. The program also focuses on developing and equipping youth with knowledge, skills, and facilities for accessing and using modern extension services, as well as empowering youth to use ICT in developing agro-enterprise innovations (NPA & MAAIF 2021).

The program supports the establishment of several regional agro-processing factories—two new vegetable oil mills, eleven fruit processing and beverage factories, four meat processing plants, four fish processing factories, and a cocoa processing plant. To increase market access and competitiveness, the program seeks to train farmers and manufacturers on sanitary and phytosanitary standards, digitize agricultural market information, and provide incentives to acquire refrigerated trucks and to construct warehouses at border points and fish landing sites, for example.

The program will increase the adoption of ICT in the agro-food sector by establishing nine climate-smart technology demonstration and multiplication centers at all the ZARDIs and BTNET institutions for technology dissemination and commercialization, with a specific focus on ICT adoption by youth. Additionally, access to agricultural extension services will be enhanced by scaling up innovative extension models, such as nucleus farmers (NPA & MAAIF 2021).



5. CONCLUSION

Uganda has registered successes in some economic and social sectors, such as agriculture and education, and has strategies to address areas where improvements are needed. The Government of Uganda recognizes the potential of ICT to accelerate development, create jobs for youth and other workers, and increase productivity. Hence, it launched the Education Digital Agenda Strategy 2021 to 2025 through MoES. This will help to improve Uganda's education service delivery through sustainable digital transformation (MoES 2021a, 2021b). To further support digital transformation, the government launched the Digital Skills Acceleration Program 2023/24-2025/26 (MoICT & NG 2023b) and the Digital Transformation program under NDP III, both of which aim to increase access and usage of ICT by vulnerable groups, including small-scale farmers (NPA 2020, NPA & MAAIF 2021). Under the Agro-industrialization Programme in the NDP III, more jobs are expected to be created along agro-industrial value chains, resulting in improved household food security overall (MoES

2023). Uganda's strategy to increase access to ICT education, infrastructure, and technologies, and to agricultural training and skills will further enable youth to obtain and create jobs in agrifood systems.

Youth in Uganda recognize the government's efforts to include young people in the agricultural sector. This is seen in NDP III, which plans numerous opportunities for job creation in the sector. To further accelerate the government's initiatives, recommendations to attract more youth to the sector are outlined in the National Youth Manifesto 2021-2026 (YCED 2020). The recommendations include increased investments in agribusiness centers nationwide to increase young people's access to modern equipment, technologies, and advisory services; promotion of youth-led co-operatives for increased access to credit by young people; and improved access to information by youth through agribusiness hubs for increasing their marketable skills.

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