

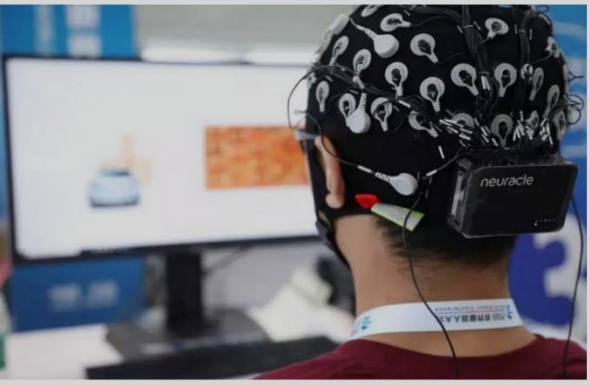




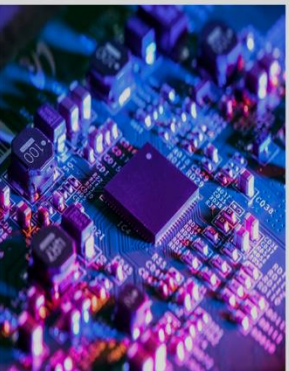
UGANDA

STI Profile of the OIC Member State

Science, Technology and Innovation Indicators







COMSTECH

Edited by:

Prof. Dr. S. Khurshid Hasanain
Adviser COMSTECH

Assisted by:

Mr. Umer Farooq
Programme Officer COMSTECH

Mr. Muhammad Jamil
PS COMSTECH

FOREWORD

It gives me great pleasure to share the *Science, Technology and Innovation Profiles of OIC Member States* as prepared by COMSTECH. These profiles of member states are being printed, as well as being shared on the COMSTECH website. A few words are therefore in order to explain the wider aims and purposes of this exercise.

The member countries of the OIC are vigorously engaged with science, technology and innovation, both as a pursuit of knowledge and in harnessing the forces of nature for human betterment. Depending on their circumstances they have advanced to different levels, but much needs to be done, in general, to catch up with the attainments of the more advanced countries. However, there exists a well-defined need to catalogue national efforts in this direction. In particular, to identify respective strengths, achievements and shortcomings, as well as the institutions and policies that are shaping the scientific research and development profiles of OIC member states.

It is with the above goals and purposes that COMSTECH has ventured on this ambitious task viz. preparing a summarized version of the science, technology and innovation landscape of each member state. We have initiated this effort starting with the profiles of countries leading in this area, and will be continuing and sharing as we proceed onwards.

Undoubtedly much more could be said about each country than the summary that we have presented, but our emphasis is on the essentials and on maintaining brevity. COMSTECH welcomes feedback from member states on this effort and will be happy to update the website profiles on the basis of information received officially.

I hope that the scientific community as well as the planners and administrators of member states will find these profiles both useful and inspiring.

Prof. Dr. M. Iqbal Choudhary
Coordinator General COMSTECH
UNESCO Chair

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UGANDA, officially the Republic of Uganda, is a landlocked country in East Africa. The country is bordered to the east by Kenya, to the north by South Sudan, to the west by the Democratic Republic of the Congo, to the south-west by Rwanda, and to the south by Tanzania. The southern part of the country includes a substantial portion of Lake Victoria, shared with Kenya and Tanzania. Uganda is in the African Great Lakes region. Uganda also lies within the Nile basin and has a varied but generally a modified equatorial climate. It has a population of over 42 million, of which 8.5 million live in the capital and largest city of Kampala. Uganda is named after the Buganda kingdom, which encompasses a large portion of the south of the country, including the capital Kampala.

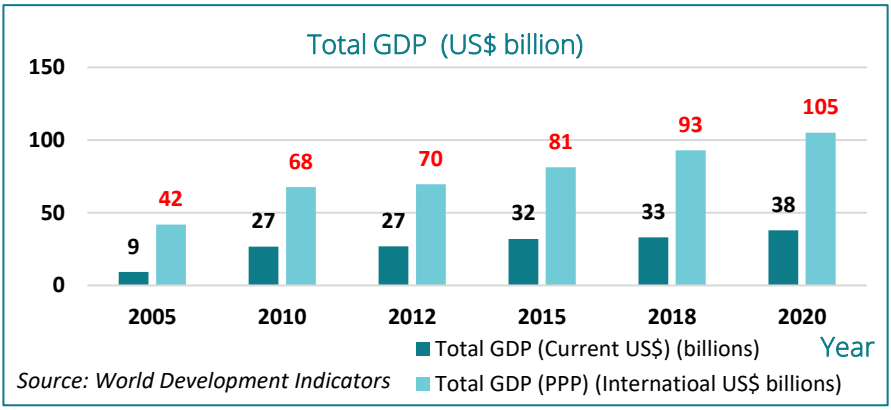
The official languages are English and Swahili, although the Constitution states that "any other language may be used as a medium of instruction in schools or other educational institutions or for legislative, administrative or judicial purposes as may be prescribed by law." Luganda, a central region-based language, is widely spoken across the Central and South Eastern regions of the country, and several other languages are also spoken, including Lango, Acholi, Runyoro, Runyankole, Rukiga, Luo, Rutooro, Samia, Jopadhola, and Lusoga.

The staple diet in most of the south is a kind of plantain called matoke, which is cooked in stews and curries. Sweet potatoes, Irish potatoes, and cassava are consumed along with a variety of vegetables. The central market in Kampala-Nakasero-offers an extensive array of vegetables and fruits, some of which are imported from neighbouring countries. Most northerners eat millet, sorghum, cornmeal, and cassava together with local vegetables. The pastoral communities tend to consume animal-derived products, especially butter, meat, and animal blood. Fish is eaten by a number of groups, and a favourite dish is luombo, a spicy stew steamed in banana leaves. Banana leaves also figure in another favourite, oluwombo, made of rice, chicken, and tomatoes.

The economy largely based on agriculture and food processing. Livestock raising and fishing are also important source of income, and there is some revenue generated from manufacturing industry and mining.

Source: https://en.wikipedia.org/wiki/Uganda; https://www.britannica.com/place/Uganda/

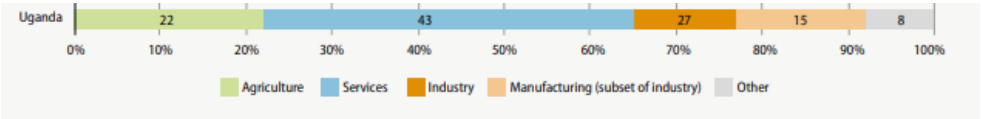
A. ECONOMIC OVERVIEW



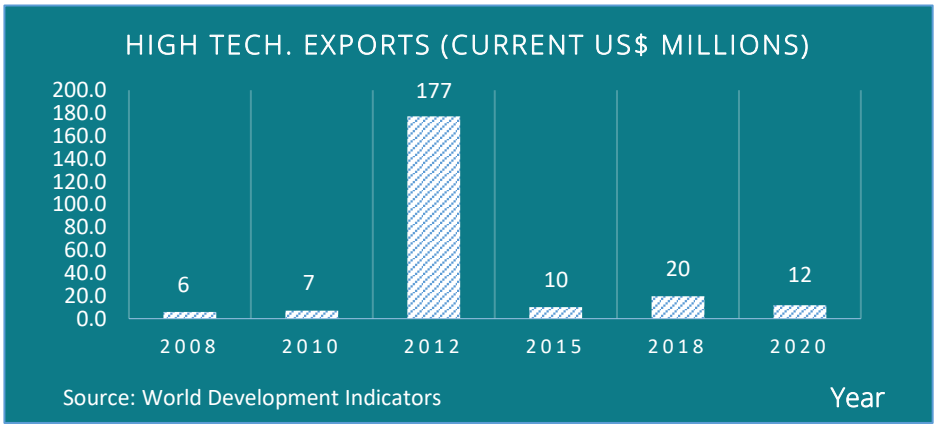
- In 2020, Uganda was the number 92 economy in the world in terms of GDP (current US$), the number 110 in total imports, the number 179 economy in terms of GDP per capita (current US$) and the number 99 most complex economy according to the Economic Complexity Index (ECI).

- In 2007, the GDP per capita (current US$) was 403.7 which increased by more than 100% and reached the value of 822US$ in 2020. In 2005, the total GDP of Uganda in terms of current US$ was 9 billion US$ which increased more than 3 folds and reached the value of 28 billion US$ in 2020. Meanwhile the total GDP in terms of PPP increased by 150% starting from 42 billion US$ in 2005 to 105 billion US$ in 2020.

GDP per economic sector in Uganda, 2019 (%)



- The Services sector accounts for the maximum share of GDP i.e. 43%. The second highest share of GDP is the Industry sector with a cummulative percentage of 42% which includes manufacturing sector as a subset. Agriculture sector accounts for 22% and the other sectors account for the remaining 8% share of the GDP.
  Source: UNESCO Science Report 2021



- The Uganda's High Technology exports are relatively small but between 2008 and 2018, they show a consistent increase from 6 to 20 million dollars. The decrease in 2020 is attributed to COVID-19 effects.

- In 2020, Uganda exported a total of $5.87B, making it the number 108 exporter in the world. During the last five reported years, the exports of Uganda have increased from $2.39B in 2015 to $5.87B in 2020, an increase of 85%. The top exports of Uganda are Gold ($3.47B), Coffee ($539M), Cocoa Beans ($101M), Raw Sugar ($71.2M), and Tea ($69M), exporting mostly to United Arab Emirates ($3.5B), Kenya ($401M), South Sudan ($357M), Democratic Republic

of the Congo ($265M), and Italy ($144M). In 2018, Uganda exported $1.97B worth of services. The top services exported by Uganda in 2018 were Personal travel ($880M), Government services ($398M), Other business services ($195M), Transportation ($181M), and Business travel ($147M).

Source: https://oec.world/en/profile/country/uga

- The Bank of Uganda is the central bank of Uganda and handles monetary policy along with the printing of the Ugandan shilling. Uganda has a large diaspora, residing mainly in the United States and the United Kingdom. This diaspora has contributed enormously to Uganda's economic growth through remittances and other investments (especially property). According to the World Bank, Uganda received in 2016 an estimated US$1.099 billion in remittances from abroad, second only to Kenya (US$1.574 billion) in the East African Community and seventh in Africa. Uganda also serves as an economic hub for a number of neighbouring countries like the Democratic Republic of the Congo, South Sudan, and Rwanda.

  Source: https://en.wikipedia.org/wiki/Uganda

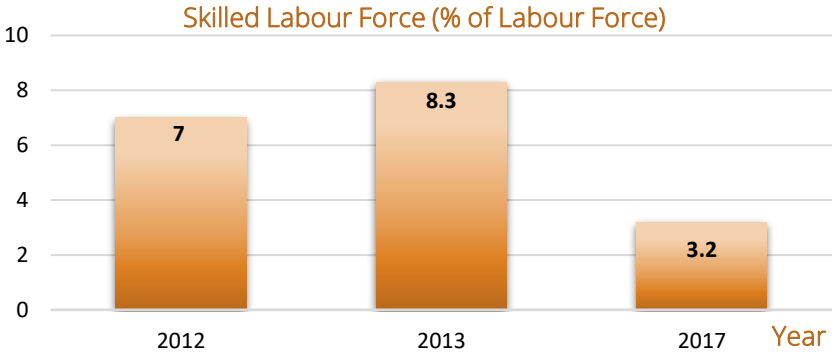
B. SOCIAL AND HUMAN DEVELOPMENT

❖ **The following are some of Uganda's key social indicators:**

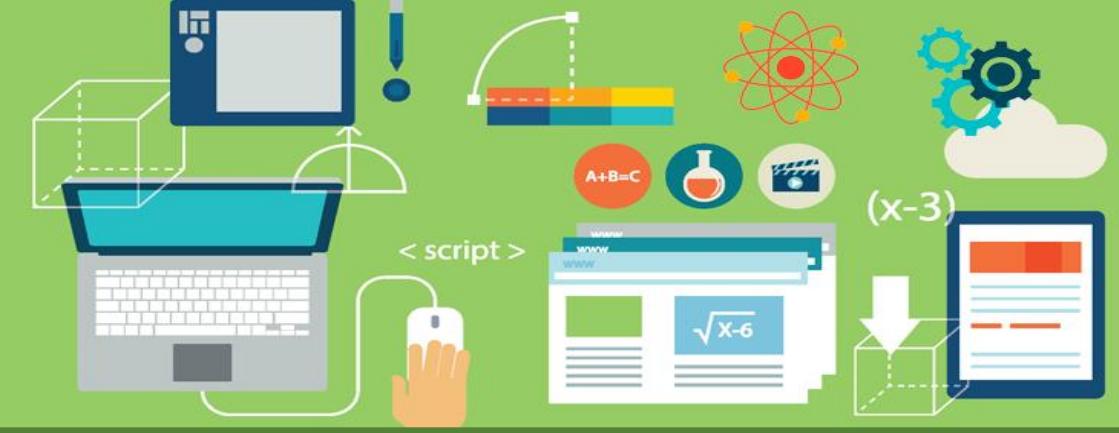
Life expectancy at birth, total (years)	63.37 (2019)
Literacy rate, adult total (% of people ages 15 and above)	76.5 (2018)
Literacy rate, adult female (% of females ages 15 and above)	70.8 (2018)
Literacy rate, adult male (% of males ages 15 and above)	82.7 (2018)
Mortality rate, infant, male (per 1,000 live births)	35.1 (2020)
Mortality rate, infant, female (per 1,000 live births)	28.4 (2020)
Individuals using the Internet (% of population)	19.9 (2020)
Access to electricity (% of population)	41.3 (2020)
Mobile cellular subscriptions	27688987 (2020)

❖ Uganda's human development indicators reflect positive trends in most, with however the need for improvement in life expectancy, internet and electricity access to the population.

- While more recent data is not available, the percentage of skilled labour force as shown in the figure depicts a decreasing trend. This proportion has decreased to about 3% in 2017 indicating a need for much more attention towards the skills development and skills based education.



Source: Human Development Report: http://www.hdr.undp.org/en/indicators/179406



C. KEY GOVERNMENT ORGANIZATIONS RELATED TO SCIENCE, TECHNOLOGY AND HIGHER EDUCATION

❖ **Key policy initiatives:**

- **Uganda Vision 2040:** Uganda Vision 2040 provides development paths and strategies to operationalize Uganda's Vision statement, which is "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years" as approved by Ugandan Cabinet in 2007. It aims at transforming Uganda from a predominantly peasant and low-income country to a competitive upper middle-income country.
  View official document: http://library.health.go.ug/download/file/fid/2195

- **Third National Development Plan (NDPIII):** This National Development Plan (NDP) is the third in a series of six NDPs that will guide the Ugandan nation in delivering the aspirations articulated in Uganda Vision 2040. The NDPIII (2020/21 – 2024/25) is anchored on the progress made, challenges encountered and lessons learnt from previous planning and implementation experiences of NDPI and NDPII. The Plan defines the broad direction for the country and sets key objectives and targets for the sustainable socio-economic and scientific transformation of Uganda.
  View official document: http://library.health.go.ug/download/file/fid/2798

❖ **Key Government Organizations and Institutions:**

- **The Ministry of Science, Technology and Innovation (MoSTI):** The Government of Uganda established the MOSTI on recognizing Science, Technology and Innovation (STI) as the drivers of socio-economic growth and transformation the world over. The major vision of the ministry is to transorm Uganda into a regional hub of excellence in research, technology development, innovation, commercialization and industrialization. The Ministry is primarily responsible for creating an enabling policy environment for STI and national development as articulated in the National Science, Technology and Innovation (2009) Policy, the National Development Plan (NDP III) and the Vision 2040.
  Source: https://sti.go.ug/

- **The Ministry of Information and Communications Technology and National Guidance (MoICT & NG):** Estabilised in June 2006, The MoICT & NG works with a mandate of providing strategic and technical leadership, overall coordination, support and advocacy on all matters of policy, laws, regulations and strategy for the ICT sector. It also ensures sustainable, efficient and effective development, harnessing and utilization of ICT in all spheres of life to enable the country achieve its national development goals.
  Source: https://ict.go.ug/

- **Ministry of Health (MoH):** The Ministry of Health is a government body set up with the mandate of stewardship and leadership of the health sector. The Ministry of Health is responsible for policy review and development, supervision of health sector activities, formulation and dialogue with health development partners, strategic planning, setting standards and quality assurance, resource mobilization, advising other Ministries, departments and agencies on health-related matters, and ensuring quality, health equity, and fairness in contribution towards the cost of health care.
  Source: https://www.health.go.ug/

- **The Ministry of Education and Sports (MoES):** The mission of MoES is to provide for technical support, guide, coordinate, regulate, and promote the delivery of quality education and sports to all persons in Uganda; for national integration, individual and national development.
  Source: https://www.education.go.ug/

- **The Ministry of Finance, Planning and Economic Development (MoFPED):** The mandate of MoFPED is to mobilize financial resources, regulate their management and formulate policies that enhance overall economic stability and development.
  The key objectives of MoFPED:
  1. Maintain solid economic growth under a stable macro environment.
  2. Enhance revenue collection to finance the budget towards 25% of the GDP target.
  3. Promote regional integration programmes and investments.
  4. To promote transparency and accountability for all public resources.

  Source: https://www.finance.go.ug/

- **The Uganda National Council for Science and Technology (UNCST):**
  In 1990, the UNCST was established with the mandate to develop and implement policies and strategies for integrating Science and Technology (S&T) into the national development policies; to advise the Government of Uganda on policy matters necessary for promoting S&T and; coordinating and guiding national research and development (R&D) in Uganda.

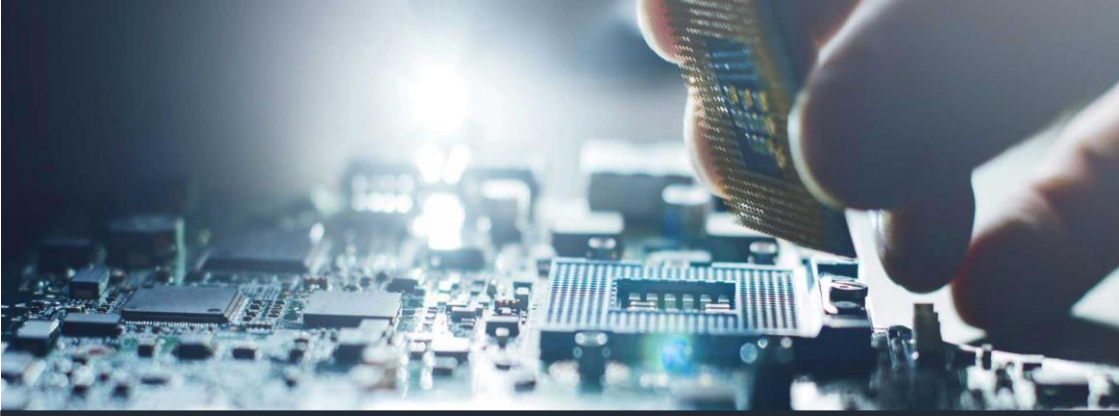
  All research matters in Uganda are coordinated nationally through the Uganda National Council for Science and Technology (UNCST), which is under the Ministry of Finance, Planning and Economic Development (MoFPED).

❖ **Following are the names of few major research centres/institutes of Uganda contributing to different research areas of S&T:**

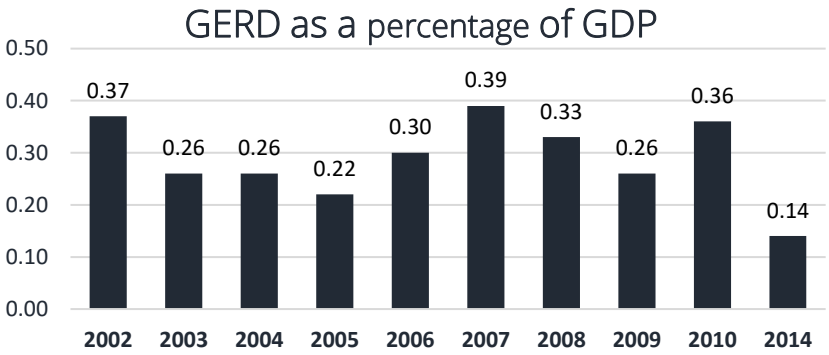
1. Centre for Basic Research.
2. Fisheries Resources Research Institute
3. Joint Clinical Research Centre
4. Kawanda Agricultural Research Institute
5. Makerere University College of Health Sciences
6. Namulonge Agricultural & Animal Production Research Institute
7. National Agriculture Research Organisation
8. Uganda Institute of Information & Communications Technology
9. Uganda Virus Research Institute
10. Uganda National Health Research Organisation
11. Natural Chemotherapeutics Research Laboratory
12. Uganda-China Agricultural Technology Demonstration Center

- The **Joint Clinical Research Centre**, **Makerere University College of Health Sciences**, and the **Uganda Virus Research Institute** have been instrumental in building research capacities in the medical and health sciences fields, especially in HIV/AIDS, malaria and tuberculosis research. Research into sustainable agriculture and food security is predominantly undertaken by the **National Agricultural Research Organisation (NARO)** and **Makerere University's Faculty of Agriculture.**

- The **Uganda National Health Research Organisation** is Uganda's umbrella organisation for health research coordination. Established in 2011 under the UNHRO Act, the Uganda National Health Research Organisation is mandated to undertake basic, epidemiological, applied, interventional, operational, chemotherapeutic research and also coordinate, promote and provide guidance for health research and development in Uganda.



D. RESEARCH AND DEVELOPMENT

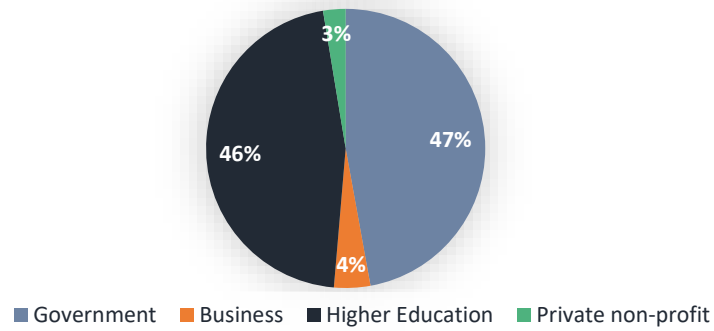


Source: *UNESCO Institute of Statistics: http://data.uis.unesco.org/#*

- No data for recent years is available for Uganda's gross expenditure on R&D. The value of GERD as the percentage of GDP plummeted by approximately 60% from 0.36% in 2010 to 0.14% in 2014. The highest value was 0.39% in 2007.

- According to UNESCO Institute of Statistics data, in 2018, the Government and the Higher Education sector contributed a major value added share of GERD i.e. 47.1% and 46% respectively. The Business and the Private sector of Uganda does not show much interest in contribution towards research and development with the minor share percentage of 4% and 3% respectively.

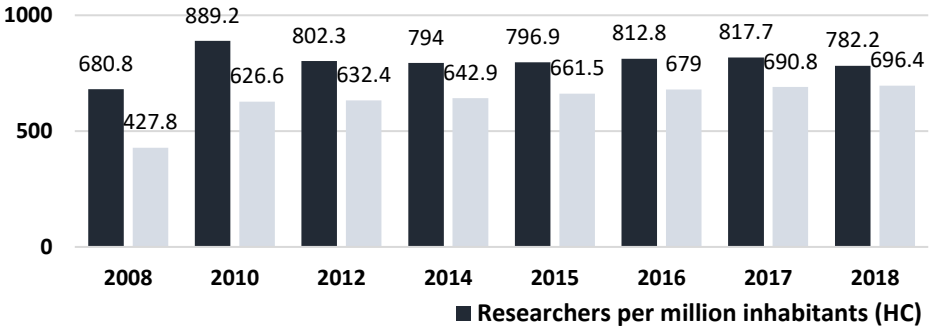
GERD by sector of performance in Uganda, 2018 (%)



❖ **Researcher Intensity:**

The number of researchers per million inhabitants (Head Count, HC) has not shown any significant increase since 2008. The highest value was about 890 in 2010 and the lowest value was about 428 in 2008. The average value for the number of researcher per million inhabitants (Head Count, HC) was around 797 between 2008 and 2018. The number of researchers per million inhabitants (Full-Time Equivalent, FTE) has increased by almost 63% from 428 in 2008 to 696.4 in 2018. Overall, there appears to be a very small increase in researcher intensity in recent years. (2015-2018)

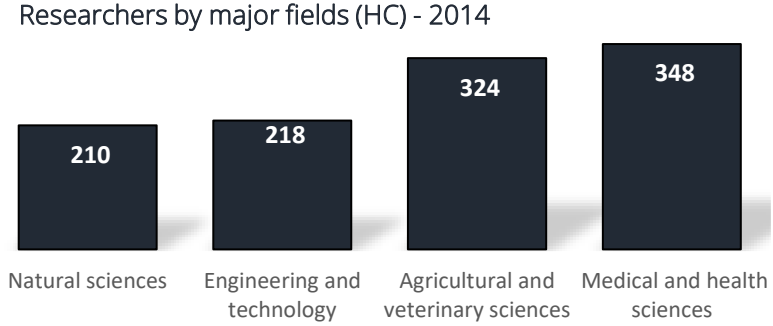
Researchers per million inhabitants (HC & FTE)



Source: UNESCO Institute of Statistics

❖ **Researchers distribution by major fields (HC):**

In 2014, the total number of Ugandan researchers in the field of Medical and health sciences were only 348 out of which 198 were employed by Higher education, 137 by Government and 13 by Business Enterprises. Likewise, the details of the number of researchers in few other fields and their employment sector are available in the accompanying graph and table. The data clearly shows the serious shortage of scientific researchers in Uganda, a situation that needs focused and consistent effort to be raised to required levels.



Source: UNESCO Institute for Statistics (UIS)

#	Fields	Business enterprise (2014)	Government (2014)	Higher education (2014)	Total
1	Natural sciences	10	39	161	210
2	Engineering and technology	27	41	150	218
3	Agricultural and veterinary sciences	16	176	132	324
4	Medical and health sciences	13	137	198	348
	Total	66	393	641	1,100

- The country's 33 vocational and technical institutes train students in technical skills needed in industry. Research activities are located in several places, including Makerere University in Kampala and Mbarara University of Science and Technology in Mbarara. Spending on science and technology is estimated at about $50 million.

  The **Uganda Industrial Research Institute (UIRI)** leads in the application of science to industrial needs, with a decade of successful research implementation and outreach and significant recent efforts to boost its capacity and outreach to key industrial sectors, from textiles to food processing to bamboo production.
  Source:
  https://documents1.worldbank.org/curated/zh/188271468115452838/pdf/588440PUB0Scie101public10BOX353816B.pdf

E. HIGHER EDUCATION

❖ **Following is the list of national and global ranking of leading Ugandan universities:**

University Name	*National Ranking*	*Global Ranking*
Makerere University	1	1134
Kampala International University	2	2802
Mbarara University of Science and Technology	3	2894
Kyambogo University	4	4504
Busitema University	5	5064
Gulu University	6	5389
Uganda Martyrs University	7	5665
Ndejje University	8	7176
Mountains of the Moon University	9	7861
Makerere University Business School	10	8220
Kabale University	11	8583
Islamic University in Uganda	12	8938

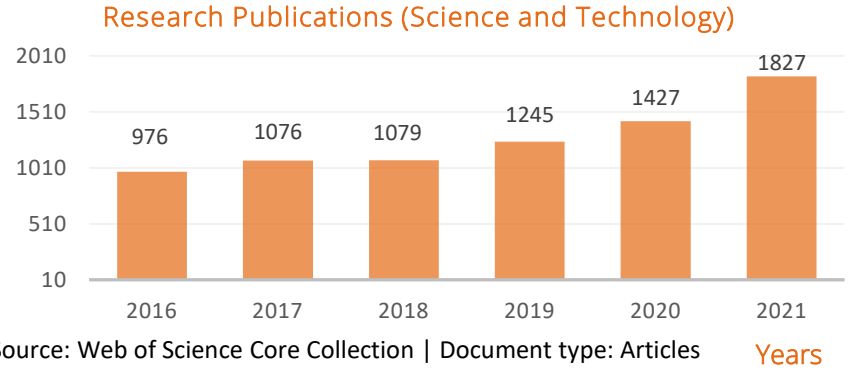
Source: https://www.webometrics.info/en/africa/uganda

❖ Top 10 Engineering universities/institutes in Uganda:

1. Kyambogo University, Faculty of Engineering
2. Makerere University, College of Engineering, Design, Art and Technology
3. Ndejje University, Faculty of Engineering and Survey
4. Mbarara University of Science and Technology, Faculty of Applied Sciences and Technology
5. Uganda Technical College, Kichwamba
6. Kampala International University (KIU), School of Engineering and applied Sciences
7. Busitema University, Faculty of Engineering
8. Muteesa I Royal University, Faculty of Science and Technology
9. Kigumba Petroleum Institute
10. Nakawa Vocational Training Institute

Source: https://toptenuganda.com/top-engineering-universities-institutions-in-uganda/

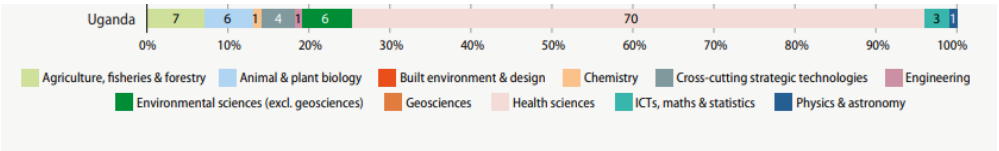
F. RESEARCH PUBLICATIONS



Source: Web of Science Core Collection | Document type: Articles

- Uganda's scientific publications in cited journals are on the low side. In 2019, Ugandan researchers published 39 scientific publications per million inhabitants. There is a consistent increase in number of research publications from Uganda in the field of Science and Technology. In 2016, the number of scientific research publications were 976 which increased by 87% to 1827 in 2021.

- **Scientific publications in Uganda by broad field of science, 2017–2019 (%):**



Uganda's The largest number of Uganda's scientific publications are classified under the field of Health Sciences (70%), followed by Agriculture, fisheries & forestry (7%), Environmental Sciences (6%), Animal & Plant Biology (6%), Cross-cutting technologies (4%), ICT, Maths & Statistics (3%), Engineering (1%), Chemistry (1%) and Physics & astronomy (1%).

- Among the 56 research topics related to the SDGs analysed by UNESCO, more than 3000 articles from Ugandan researchers concerned HIV research and almost 1300 tropical communicable diseases between 2011 and 2019. Growth was notable for Type 2 diabetes (from 27 to 81 papers) and climate-ready crops (from 9 to 39).

- **Top five partners for scientific co-authorship, 2017–2019 (number of papers):**

The main partners of Uganda in scientific publications are USA (2039), UK (1184), South Africa (625), Kenya (591) and Canada (381), where the numbers in parenthesis are the number of co-authored publications with the respective country.

Source: UNESCO Science Report 2021

G. INTERNATIONAL COOPERATION AND SUPPORT INITIATIVES

- In 2017, **World Bank** established a **centre of excellence in Uganda**, whose major focus is development in the domains of Climate-smart agriculture, agro-ecology, biodiversity protection, medicine and water management.

- Memorandum of Understanding between the Ministry of Science, Technology and Innovation of the Republic of Uganda and the **Ministry of Science and Higher Education of the Russian Federation on Scientific, Technical and Innovation Cooperation** was signed on 22 February 2019 in Moscow. The purpose of this Memorandum is to contribute to the development and realization of mutually beneficial cooperation in the field of science, technology and innovation. Within the scope of their competence, both parties will contribute to the development and realization of cooperation in technologies for exploration and development of mineral resources, ecology, research in the field of agriculture, biotechnology, chemistry and research.
  Source: https://moscow.mofa.go.ug/data-dnews-81-MOU-Between-the-Republic-of-Uganda-and-the-Russian-Federation-on-Scientific,-Technical-and-Innovation-Cooperation.html

- The Uganda National Council of Science and Technology (UNCST),

and the **National Institute of Health (NIH) in the United States of America** have signed a Memorandum of Understanding (MoU) to support more Ugandan scientists and researchers in various fields of health research and development. Uganda is the first country in Sub Saharan Africa to sign such Memorandum of Understanding with the NIH for joint cooperation in capacity building of Ugandan scientists and researchers in the health sector.
Source: https://www.newvision.co.ug/news/1436901/uncst-signs-mou-support-ugandan-scientists-research

- On 7th October 2020, The Ministry of Science, Technology and Innovation (MoST&I) of the Government of the Republic of Uganda have signed a Memorandum of Understanding (MOU) with the **Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)** in Kampala. The objective of the Memorandum of Understanding is to enhance the deployment of Science, Technology and Innovation (STI) for poverty reduction, rural livelihood improvement, entrepreneurship and job creation, and national development in Uganda through a partnership between RUFORUM and MoSTI.
Source: https://ruforum.wordpress.com/2020/10/07/press-releasethe-ministry-of-science-technology-and-innovation-mosti-of-the-government-of-the-republic-of-uganda-signs-an-mou-with-ruforum/

- **The East African Science and Technology Commission (EASTECO)**, the **Public Library of Science (PLOS)**, and the **Training Centre in Communication (TCC Africa)** announced that they will collaborate in the implementation of Open Science and Open Access principles for EAC Partner States, which include Burundi, Kenya, Rwanda, South Sudan, United Republic of Tanzania, Democratic Republic of Congo and Uganda.
Source: https://eajsti.org/index.php/EAJSTI/announcement/view/8

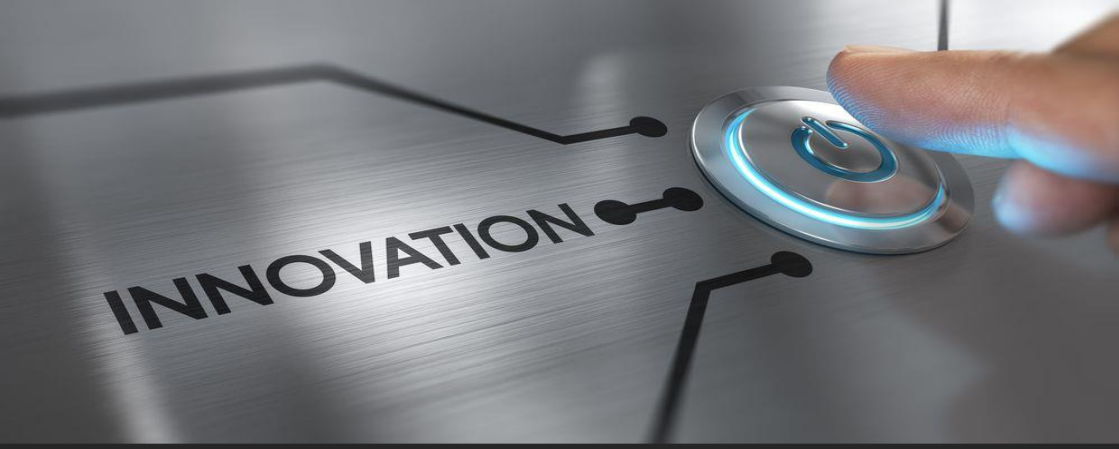
- Two higher education organisations in East Africa, the **Inter-University Council of East Africa (IUCEA)** and the **Regional**

Universities Forum for Capacity Building in Agriculture (RUFORUM), have signed a memorandum of understanding (MoU) to formalise their collaboration in advancement of postgraduate training and research in East Africa. Both organisations are based in Kampala, Uganda. They identified several activities to be carried out towards the realisation of the aspirations of the MoU, and which, they say, will complement the mandates and responsibilities of both organisations.

Source:
https://www.universityworldnews.com/post.php?story=20220123223921277

- In 2022, **Islamic University in Uganda (IUIU)** and **OIC Ministerial Standing Committee for Scientific and Technological Cooperation (COMSTECH)** signed a Memorandum of Understanding (MoU) at COMSTECH Secretariat, Islamabad to promote cooperation. The intent of this MoU is to promote and strengthen the cooperation between COMSTECH and IUIU by providing a platform for collaborative activities such as sharing experiences and best practices, development of methodologies and mobility of experts in the relevant fields of mutual interest. Under the MoU, COMSTECH will help IUIU in developing linkages with the institutions in OIC region, and will develop a programme in association with IUIU through which young researchers/students from IUIU and different least developed OIC member countries from Africa may visit Pakistan and conduct research for 6 to 12-month duration.

Prof. Dr. Muhammad Iqbal Choudhary (Coordinator General COMSTECH) signing MoU with Prof. Ismail Simbwa Gyagenda (Rector IUIU). https://www.comstech.org/comstech-mou-with-iuiu/



H. INNOVATION, ENTREPRENEURSHIP & TECHNOLOGY PARKS

❖ **Science Governance: Key policy initiatives**

- **National 4IR Strategy, Uganda:** In October 2020, Uganda adopted its own National 4IR Strategy to transform and accelerate Uganda's development into an innovative, productive and competitive society using 4IR technologies by 2040. The major emphasis of strategy is on e-governance, urban management (smart cities), healthcare, education, agriculture and the digital economy; to support local businesses, the government was contemplating introducing a local start-ups bill in 2020 which would require all accounting officers to exhaust the local market prior to procuring digital solutions from abroad.

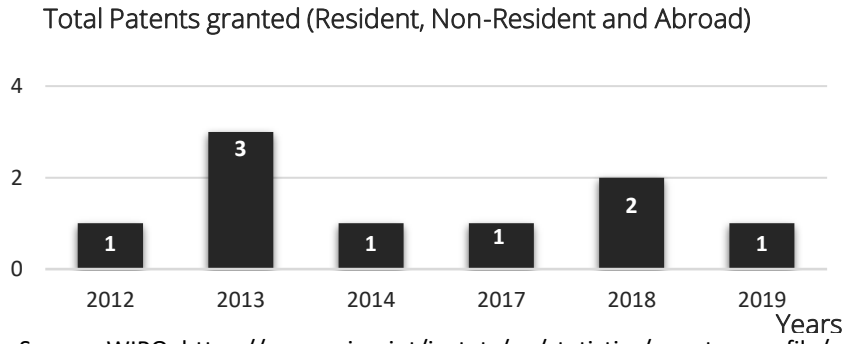
- **Digital Uganda Vision:** The 'Digital Uganda Vision' will empower its citizens, striving to achieve the goals of universal inclusion, sustainable development, economic progress and poverty eradication through digital innovation combining initiatives across multiple sectors. It will also electronically deliver a variety of government and private services in various fields like education, health, agriculture, social security, banking, justice, communication etc.

The vision has seven objectives, namely:

- Socio-Economic Development
- Transformation
- Competitiveness
- Investment
- Human Capital Development
- National Guidance
- National ICT Governance and Coordination

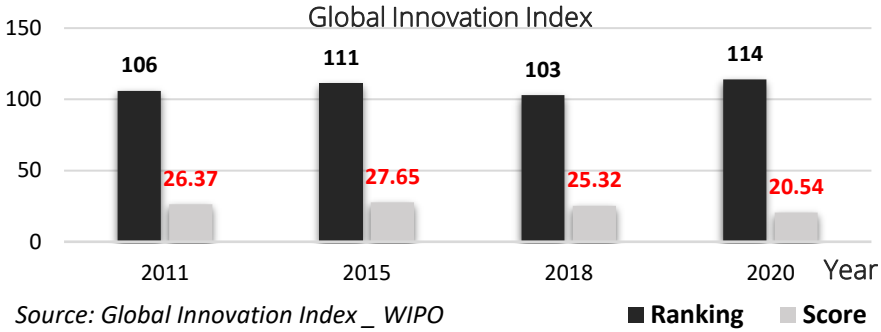
- In 2017, the government launched the National ICT Initiatives Programme. It awards grants to selected digital start-ups in the form of seed capital, provides training and makes working space available to entrepreneurs at its innovation hub in Nakawa.

❖ **Innovation:**



Source: WIPO: https://www.wipo.int/ipstats/en/statistics/country_profile/

- In The data on patent applications between 2010 and 2019 shows only 10 applications. The patents actually granted are shown in the bar graph and depict a very unsatisfactory situation. The Ugandan government needs to entail some serious measures and reforms in the system for the implementation of innovation and industrialization policies to vastly improve the trend of total number of patents granted to Ugandan innovators. This is the clear area requiring intense effort.



Source: Global Innovation Index _ WIPO

- With a GII score of 20.54, Uganda ranked 114th globally in 2020. The overall ranking dropped with time from 106th in 2011 to 119th in 2011. This indicates that Uganda has not made any significant progress in its innovation system and the decrease of innovation trends require a serious attention from concerned authorities.

- **Business and Technology Parks/Incubators:**

  In 2020, there were 19 active tech hubs in Uganda. Uganda Investment Authority has been able over time to set up the following business parks:

  - Kampala Industrial and Business Park (KIBP) – Namanve
  - Luzira Industrial and Business Park
  - Bweyogerere Industrial and Business Park
  - Jinja Industrial and Business Park
  - Kasese Industrial and Business Park
  - Soroti Industrial and Business Park
  - Mbale Industrial and Business Park
  - Karamoja Industrial and Business Park
  - Karamoja Industrial and Business Park
  - Kashari Agricultural Land
  - Mbarara Small and Medium Enterprise Park

- With a Under the **Uganda Investment Authority (UIA)'s strategic plan 2020-2025**, twenty-five (25) industrial parks are set to be constructed with the theme of "Accelerating Domestic and Foreign Direct Investment for Sustainable Industrial Industrialisation" which targets creation of 400,000 jobs a year through industrial parks development. The new industrial parks are planned for Gulu, Arua, Lira, Hoima, Buliisa, Hoima, Kabarole, Nakasongola, Luwero-Nakaseke, Kabarole, Mubende, Mityana, Masaka, Kabale, Bushenyi, Tororo, Rakai and Iganga. Likewise, the science, technology and innovation parks (STIPs) will also be set up in the areas of Pakwach, Kyankwanzi, Kamuli and Rubirizi.

Source: https://africabriefing.org/2021/08/uganda-to-construct-25-industrial-parks-across-the-country/; https://www.ecolandproperty.com/industrial-and-business-parks-in-uganda/

I. COMBATING THE COVID-19 PANDEMIC

❖ COVID-19: Uganda receives mobile testing laboratories

Laboratories can diagnose, provide safe, accurate, timely results for COVID-19. Uganda received a donation of two mobile laboratories for testing and diagnosing COVID-19 from the East African Community. The laboratories are equipped with modern equipment and can diagnose most pathogens in addition to providing safe, accurate and timely results for COVID-19. They were deployed to border points with a lot of human traffic to speed up testing for the COVID virus. The labs brought the testing closer to communities and brought the real time results.

Source: https://www.aa.com.tr/en/africa/covid-19-uganda-receives-mobile-testing-laboratories/1810142

❖ Uganda Scientists Develop Devices to Fight COVID-19

Many new and indigenous innovations are done by Ugandan Scientists during COVID-19 pandemic which include the hand-free hand sanitizers, rapid testing kits for up-country hospitals and ventilators. A group of students from the Islamic University In Uganda (IUIU) and Kabale University have developed a hand-free hand sanitizer that uses sensors to automatically dispense water and soap for handwashing without touching the tap or soap bottle.

❖ Alcohol sanitisers

Government permitted Ugandan spirits (alcohol) manufacturers to convert 7.3m litres of ethanol into hand sanitisers to fight Covid-19. The development was subsequently followed by Uganda National Bureau of Standards (UNBS) who released a list of 12 industries making standard sanitisers.

❖ Masks and face shields

A number of local artisans and textile industries are making masks for the public and medical workers.

❖ Rapid diagnostic kits

Dr Misaki Wayengera, a lecturer of immunology and molecular biology at Makerere University, started manufacturing affordable and faster testing kits for field surveillance teams. Unlike, the other testing kits that require a complex machine, his kits use a small test tube and can be used in remote hospitals. Makerere University provided the funds for the manufacturing.

❖ Ventilators

A team of experts at Makerere University are manufacturing low cost ventilators to bolster the country's capacity to cope with pandemic related health tech demands. This Project is a joint venture between Makerere University and Kira Motors Corporation in Kampala Uganda. The Innovation Management team at Resilient Africa Network (RAN), a project at the School of Public Health are proud coordinators of the Low Cost Ventilator Project.

Source: https://rif.mak.ac.ug/update-about-production-of-the-low-cost-ventilator-in-uganda/

❖ Ugandan Creates COVID Shield for Motorcycles

As part of measures to curb the spread of COVID-19, a Ugandan innovator has come up with a plastic shield for motorcycles to protect both driver and passenger. The shield is seen as not just reducing body contact, which could spread the virus, but also adding security for motorcycle taxi drivers.

Source: https://www.voanews.com/africa/ugandan-creates-covid-shield-motorcycles

❖ Telecoms join fight against coronavirus

Telecommunications companies have started campaigns that seek to sensitize and minimize the spread of coronavirus in Uganda. They had put together campaigns that will not only sensitize but also allow Ugandans to work away from concentrated places. It is important that the companies innovate in a time when the country is on high alert. Telecoms like Airtel had started relaying messages related to coronavirus.

Source: https://www.monitor.co.ug/Business/Technology/Telecoms-join-fight-against-coronavirus/688612-5498720-o41b13/index.html

❖ Making protective face masks from plastic waste in Uganda

A recycling company in Uganda had started making face masks that were urgently needed in hospitals because of the coronavirus. All the plastic parts are made from recycled waste, which often comes from hospitals themselves.

Source: https://www.dw.com/en/making-protective-face-masks-from-plastic-waste-in-uganda/av-53866056

- **Airtel and Avaya partner up to fight Covid 19 in Uganda:** Airtel Uganda announced that it has deployed over 2,000 4G network masts across the country, providing seamless 4G LTE connectivity to students, teachers and businesses. Airtel Uganda has partnered with Avaya to enable organisations in the country to implement remote working and learning initiatives, which will allow businesses and educational institutions to continue to function as the country fights to contain the spread of the Coronavirus pandemic.
  Source: https://www.itp.net/news/92408-airtel-and-avaya-partner-up-to-fight-covid-19-in-uganda

- **WhatsApp Partners With Uganda To Launch COVID-19 Helpline**
  Uganda's Ministry of Health together with the Ministry of ICT and National Guidance with support from Clinton Health Access Initiative (CHAI) has launched a Business API on WhatsApp. The free-to-use service provides a central source of accurate, trustworthy and up-to-date information about Coronavirus (COVID-19) with the goal of keeping Ugandans safe and constantly informed about the virus.

  The service also provide information on topics such as Coronavirus prevention and symptoms, the latest number of cases in Uganda, advice on staying at home, travel advisory and myth-busting. WhatsApp users can access the free information service by simply adding the number +256 32 3200660 to their phone contacts and type any word e.g. "Hi" to get started.

  Source: https://www.busiweek.com/whatsapp-partners-with-uganda-to-launch-covid-19-helpline/

COMSTECH Secretariat
33 - Constitution Avenue
G-5/2, Islamabad - 44000
Islamic Republic of Pakistan

Tele: 92-51-9220681-3
Fax: 92-51-9211115, 9205264
www.comstech.org

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