



# Uganda

## SCIENCE, TECHNOLOGY & INNOVATION **POLICY REVIEW**





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- **A slash (/)** between dates representing years – for example 2009/10 indicates a financial year.
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- **Details and percentages** in tables do not necessarily add to totals because of rounding.



## Preface

The Science, Technology and Innovation Policy (STIP) Review of Uganda was prepared on the request of the Ministry of Science, Technology and Innovation of Uganda.

Ugandan development aspirations require that its national science, technology and innovation (STI) plans and programmes make an effective contribution to its social and economic development. Strengthening national innovation performance is required to improve the competitiveness of Ugandan firms and industries competing in the global economy. Furthermore, like all other countries, Uganda is facing the challenges of Agenda 2030 for Sustainable Development and its 17 Sustainable Development Goals (SDGs). Here, as well, technology and innovation are increasingly important factors of success.

The Review has three fundamental goals. Its first goal is to offer Uganda an assessment of activities and institutions that make up its STI ecosystem. The second goal is to draw attention to the main STI policy challenges and enhance institutional capacity for policy design and deliver through capacity building activities. Special attention has been placed on the agriculture and information and communication technologies (ICTs). The third goal is to provide recommendations for strengthening STI policies and propose measures that may improve national technological capacities and encourage innovation.

During visits to Uganda, the STIP Review team held 60 interviews and meetings with representatives of government agencies, research institutes, universities, chambers of commerce and businesses. A draft of this document was presented and discussed at a series of national workshops held in Kampala between 9 and 12 December 2019, with the participation of more than 100 experts and national STI stakeholders. The feedback and suggestions provided have been considered in the preparation of this review.

This review would not have been possible without the cooperation of the Ministry of Science, Technology and Innovation of Uganda and, in particular, Honourable Minister Dr. Elioda Tumwesigye and Permanent Secretary David O. Obong. A special appreciation is owed to the Ministry STIP team, led by Assistant Commissioner Jennifer Muwuliza. Gratitude is also extended to all participants in the national workshop and to the persons and entities, too numerous to list, that generously contributed their comments and ideas. Special thanks go out to colleagues at UNESCO, and from UNDP and UNIDO in Kampala, collaborating and assisting on the Review and related activities.

While national partners, counterparts and experts in Uganda may have advised on its content, they may not necessarily concur with the entirety of the STIP Review's analysis and recommendations. The data cited in the Review is established by UNCTAD research staff. The assessments, opinions and conclusions expressed in this document are entirely those of the UNCTAD secretariat.

# Abbreviations

<b>AI</b>	Artificial intelligence
<b>ASDSIP</b>	Agricultural Sector Development Strategy and Investment Plan 2010/11-2014/15
<b>ASSP</b>	Agriculture Sector Strategic Plan 2015/16-2019/20
<b>ATIS</b>	The Alliance for Trade in Information and Technology Services
<b>BBL</b>	Billions of barrels
<b>BPO</b>	Business process outsourcing
<b>Btu</b>	British thermal unit
<b>BTVET</b>	Business, Technical, Vocational, Education and Training
<b>CNDPF</b>	Comprehensive National Development Planning Framework
<b>COMESA</b>	Common Market for Eastern and Southern Africa
<b>CRISPR</b>	Clustered regularly interspaced short palindromic repeats
<b>CURAD</b>	Consortium for Enhancing University Responsiveness to Agribusiness Development
<b>EAC</b>	East African Community
<b>EU</b>	European Union
<b>FTBIC</b>	Food Technology and Business Incubation Centre
<b>GCF</b>	Green Climate Fund
<b>GCI</b>	Global Competitiveness Index
<b>GDP</b>	Gross domestic product
<b>GEM</b>	Global Entrepreneurship Monitor
<b>GERD</b>	Gross domestic expenditure on research and development
<b>GGDS</b>	Uganda Green Growth Development Strategy 2017/18-2030/31
<b>GII</b>	Global Innovation Index
<b>GPS</b>	Global Positioning System
<b>GSM</b>	Global System for Mobile Communications
<b>ICT</b>	Information and communication technology
<b>IMF</b>	International Monetary Fund
<b>INSEAD</b>	Institut Européen d'Administration des Affaires
<b>IP</b>	Intellectual property
<b>IPRs</b>	Intellectual property rights
<b>ISO</b>	International Organization for Standardization
<b>ITC</b>	International Trade Centre
<b>ITU</b>	International Telecommunication Union
<b>IUCT</b>	Uganda Institute of Information and Communication Technology
<b>LDC</b>	Least Developed Countries
<b>LED</b>	Light-emitting diode
<b>MAAIF</b>	Ministry of Agriculture, Animal Industries and Fisheries
<b>MGLSD</b>	Ministry of Gender Labour and Social Development
<b>MIIC</b>	Makerere Innovation and Incubation Center
<b>NDP II</b>	Second National Development Plan 2015/15-2019/20
<b>NGO</b>	Non-governmental organization
<b>NIF</b>	National Innovation Fund
<b>NITA</b>	National Information Technology Authority
<b>NRI</b>	Networked Readiness Index

<b>NSI</b>	National system of innovation
<b>NSSF</b>	National Social Security Fund
<b>NSTP</b>	National Science, Technology and Innovation Plan
<b>OWC</b>	Operation Wealth Creation
<b>PIBID</b>	Presidential Initiative on Banana Industrial Development
<b>RASA</b>	Real Agricultural Solutions for Africa
<b>RCDF</b>	Rural Communications Development Fund
<b>RCIP</b>	Regional Communication Infrastructure Program
<b>SDGs</b>	Sustainable Development Goals
<b>SSA</b>	Sub-Saharan African region
<b>STEM</b>	Science, technology, engineering, and mathematics
<b>STI</b>	Science, technology and innovation
<b>STIP</b>	Science, technology and innovation policy
<b>TALEN</b>	Transcription activator-like effector nuclease
<b>TFP</b>	Total factor productivity
<b>TNA</b>	Technology needs assessment
<b>UBOS</b>	Uganda Bureau of Statistics
<b>UCC</b>	Uganda Communications Commission
<b>UDB</b>	Uganda Development Bank Limited
<b>UETCL</b>	Uganda Electricity Transmission Company Ltd.
<b>UIRI</b>	Uganda Industrial Research Institute
<b>UNBS</b>	Uganda National Bureau of Standards
<b>UNCST</b>	Uganda National Council for Science and Technology
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environment Programme
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNFPA</b>	United Nations Population Fund
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>URSB</b>	Uganda Registration Services Bureau
<b>US</b>	United States of America
<b>USAID</b>	United States Agency for International Development

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