

ARTHUR MAKARA MUSINGUZZIH

Curriculum Vitae

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Date of birth: 15th November 1972 | **Nationality:** Ugandan | **Civil status:** Married

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1. Biographical Summary

Mr. Arthur Makara is an agricultural scientist and possesses over 15 years' experience in biotechnology/biosafety regulation, science communication and science policy advocacy in Uganda, COMESA region and Eastern Africa. He started his career as a part-time Lecturer at Makerere University, Kampala, Uganda after which he moved on to Government to regulate science and technology. He worked with the Uganda National Council for Science and Technology (UNCST) from 2004-2008 raising through the ranks to the Position of Senior Science Officer in Charge of Biosafety. At the same time he was the Secretary of the National Biosafety Committee in Uganda from 2004-2008. He spearheaded establishment of Uganda's biosafety regulatory system including development of Uganda's biotechnology and biosafety Policy which he witnessed its adoption during a Cabinet sitting on 2nd April 2008. He is recognised for presiding over the development of most of regulatory documents for Agricultural Biotechnology Research in Uganda such as the Confined Field Trial Guidelines, drafting and advocacy for the enactment of the National Biotechnology and Biosafety Bill. Mr. Makara has consulted widely in Uganda, East African Community and beyond on issues of Biotechnology and Biosafety. He was the Lead Consultant for the drafting of COMESA Policy for Biotechnology which was adopted by the COMESA Council of Ministers in 2014. Together with the COMESA technical team presented the draft policy 18 COMESA Member states before its adoption. He is also consulted for the East African Community consulting her 5 Partner on the roadmap to development of the EAC Biosafety Policy. Since 2012, He has been serving as a Communication Advisor on the VIRCA Plus Project implemented by the Donald Danforth Plant Sciences Centre, USA, National Agricultural Research Organization (NARO), Uganda and the Kenya Agricultural and Livestock Research Institute (KARLO). Mr. Makara possess a wealth of experience on Uganda's trials and tribulations regarding development and efforts for enactment of the National Biotechnology and Biosafety Bill into Law spanning 15 years+. In 2016, he was nominated by UNCST and in 20th May 2017 inaugurated as a Governing Board Member of the East African Commission for Science and Technology (EASTEKO), a specialized agency of the East African Community (EAC). During the Inaugural meeting of the Board, he was elected to Chair the Board Committee on Policy and Regulations. Mr. Makara has over the years been involved in advocacy for the enactment of Uganda's Biotechnology and Biosafety Bill; but has also successfully championed

the enactment of other laws such as the Plant Variety Protection Act 2014, and the Plant Protection and Health Act 2014. Mr. Makara is a founding member of the Cornell Alliance for Science—a global network of science allies based at Cornell University. He is also a founding Coordinator of the Uganda Biotechnology and Biosafety Consortium (UBBC) based at Uganda National Council for Science and Technology (UNCST). Further, he is the founding Coordinator of the Open Forum on Agricultural Biotechnology (OFAB) Uganda Chapter that he spearheaded its launch on 17th December 2007 in Kampala and implemented for close to 1 year. He Coordinated the United Nations Environment Program-Global Environment Facility Project (UNEP-GEF Project from 2005-2008 at UNCST and oversaw its successful closure. Under this project, Mr. Makara was the Secretary of the National Consultative Committee for Implementation of the National Biosafety Framework. He was also the Secretary of the National Biosafety Committee. Mr. Makara was among the key proponents for the establishment of a stand-alone Ministry of Science and Technology and Innovation in Uganda which was finally established in June 2016 in Uganda. Beside this, he is an entrepreneur and is a proprietor of a private tissue culture Company—Nsigotech Africa (Uganda) Limited that is involved in commercial production of tissue culture bananas in Kampala, Uganda.

2. Education History

Degree (or Diploma)	Awarding Institution	Period
Post Graduate Diploma in Business Administration (PGDBA)	Uganda Management Institute, Kampala, Uganda	2017
MSc. Crop Science (Plant Biotechnology)	Makerere University	2003
Bachelor of Science (BSc.)	Makerere University	2000
Diploma in Education	Uganda Institute of Teacher Education	1997
Certificate in Project Planning and Management	HRC HR& Mgt Consulting Agency Ltd, Kampala	2006
Certificate Marketing	British Council	2008
Certificate in Procurement & Supply Chain Management	Public Procurement and Disposal Authority/UNDP	
Certificate Plant Tissue Culture	University of Western Sydney (2001) in Collab. With Univ. of Nairobi	2000

3. Membership to Professional Bodies & Committees

Time	Membership
2013-todate	Member, UNCST Open Forum on Agricultural Biotechnology (OFAB Uganda) Project Programming Committee (PC) that is regularly convened to guide implementation of OFAB in Uganda
2017-2020	Member of Governing Board, East African Community's East African Commission for Science and Technology (EASTECO) & Chair Board Committee on Policies and Regulations
2008-todate	Member of Executive Committee (Board), Uganda Science Journalists Association (USJA)

2007-to 2013	Member, National Technical Committee on Biodiversity Conservation of the National Environment Management Authority (NEMA), Uganda
2011-2013	Founding Vice Chairman, Coordinator, and founding member Uganda Biotechnology and Biosafety Consortium (UBBC), Uganda
2012	Founding Member, Cornell Alliance for Science, Cornell University, USA
2010	Co-Chair Local Organising Committee and Lead Convener, International Conference on AgroBiotechnology, Biosafety and Seed Systems (AgBioSafeSeed2010), Kampala, Uganda
2013 & 2015	Co-Chair, Conference Organizing Committee & Lead Convenor, National Biosciences Conference (NaBIO), Makerere University, Kampala, Uganda.
2017	Member, Local Organising Committee of Agricultural Biotechnology and Biosafety Communications (ABBC) Africa Symposium, Entebbe, Uganda.
2010-to date	Appointed Member, Water Efficient Maize for Africa (WEMA) Uganda Regulatory Team (a Bill and Melinda Gates Foundation Funded Project in 5 African Countries)

4. Research Related Policies, Guidelines and Handbooks Involved in

1. National Biotechnology and Biosafety Policy (*coordinator & Convenor of the National Consultative Coordination Committee*)
2. National Science and Technology Policy (*Participated*)
3. National Biotechnology and Biosafety Bill (*Convenor, Coordinator of the NCC and later Advocate and strategist for progression and passage of the Bill*)
4. Trial Managers' Handbook for Confined Field Trials of Transgenic Crops: Containing Standard Operating Procedures (SOPs): Transport; Storage; Confinement; Termination & Post Harvest Monitoring SOPs (*Lead*)
5. National Guidelines for Conduct of Research Involving Genetic Engineering (*Lead*)
6. Guidelines for Containment for Research Involving Transgenic Organisms at Lab and Screen house stages (*Lead*)
7. GM Cotton Confined Field Trials Handbook (*Lead*)
8. GM Cassava Confined Field Trials Handbook (*Lead*)
9. National Guidelines for Research Involving Human Participants (*participated*)
10. Plant Variety Protection Act 2014: In 2013, with AATF Support, SCIFODE and I resurrected the PVP Bill, and championed its passage.
11. Plant Protection and Health Act 2014: This bill was reactivated together with the Plant Protection Bill and was enacted into law in 2014.
12. COMESA Policy on Biotechnology and GMOs (*Lead drafter/Consultant*)
13. EAC Biosafety Policy (*Lead, Country Consultations—2013*)
14. EAC Sustainable and Renewable Energy Policy (*Chair, Policy & Regulations Board Committee of East African Commission for Science and Technology (EASTECO)—ongoing August 2017*)
15. EAC Science, Technology and Innovation Policy (*Chair, Policy and Regulations Board Committee of East African Science and Technology Commission—Ongoing August 2017*)
16. EAC Intellectual Right Policy (*Chair Policy and Regulations EASTECO Bord Committee on Policies and Regulations—ongoing August 2017*)

5. Employment History

Executive Director, Science Foundation for Livelihoods and Development (SCIFODE), Kampala, Uganda (2008-2010 & 2012 to Present)

- He is the Co-founder and Founding Executive Director, of SCIFODE. He works closely with scientists to promote their works, work closely with communities on dissemination of agricultural technologies and work closely with the media in popularizing scientific technological developments especially in agriculture and Biotechnology and Biosafety. He heads the SCIFODE team in harnessing science, technology and innovation and linking science to society through public policy engagements;
- He engages policy makers and Government on the issues of the National Biotech and Biosafety Bill 2012 and other emerging technologies for national and regional development and socio economic transformation.
- He leads Projects at SCIFODE including collaborations with African Agricultural Technology Foundation' Water Efficient Maize for Africa Communication component; Under this collaboration, he reactivated and led the Policy Engagements that resulted into working with different stakeholders including MPs to pass the National Plant Variety Protection Act 2014; and the Plant Protection and Health Act 2014.
- Mr. Makara is also lead implementer of the Virus Resistant Cassava for Africa Communication Component which is led by SCIFODE in Uganda. He is a Communication Advisor for that Project. Both WEMA and VIRCA are funded by the Bill and Melinda Gates Foundation.
- Up till 2014, SCIFODE was the lead convener of the UNCST's Open Forum on Agricultural Biotechnology (OFAB) Project activities in Uganda under a collaborative agreement between SCIFODE and Uganda National Council for Science and Technology (UNCST), and Mr. Makara was the key implementer of the OFAB Project. Mr. Makara is founding Coordinator of OFAB in Uganda and up to now is a Member of the UNCST's OFAB Programming Committee (PC) that regularly meets to guide implementation of the OFAB Uganda Activities.
- SCIFODE between 2014-2015 also implemented an US\$800,000 dollar USAID Climate Change Project (ECOFASA Project) and Mr. Makara was CO-PI of that on "Project on Scaling Up Climate Change Services for Farmers in Africa and South Asia"
- SCIFODE under Arthur's leadership has organised many workshops for the Members of Parliament (from from the 8th, 9th and 10th Parliament); National Farmer Leaders; Media and holds a monthly Media-BioCafe workshop at which the journalists and scientists meet and exchange scientific ideas.
- He was also Co-PI of the SCIFODE-ISAAA- Ebrapa Brazil Market Place Project funded by the Bill and Melinda Gates Project between 2013-2015
- SCIFODE has a long-standing and open Ended MoU with National Agricultural Research Organisation (NARO), under this agreement, more than 20 Engagement activities involving Members of Parliament visiting National Crops Resources Research Institute (NaCRRI), Namulonge; National Agricultural Research Laboratories, Kawanda; Up-country stakeholder, opinion leaders engagements in different sub-regions including district Councils in Luwero, Masaka, Kabalere, Kasese, Gulu, Lira, Soroti, Arua, Iganga among others on the National Biotechnology and Biosafety Bill have been held; These are implemented in collaboration

with NARO's Uganda Biosciences Information Centre (UBIC) hub based at the National Crops Resources Research Institute, Namulonge.

Founding Vice Chair and Later Coordinator, Uganda Biotechnology and Biosafety Consortium (UBBC) based at UNCST (2011-2012)

Having been initially elected Vice Chair of the UBBC, the UBBC Executive Committee appointed Mr. Arthur Makara as the Coordinator. Under his leadership, the UBBC accomplished the following milestones:

- Securing instructional host agreement with the Uganda National Council for Science and Technology (UNCST)
- Development of proposal and securing funding from CropLife International
- Development of UBBC Strategic Plan for 5 years
- Development of UBBC Constitution and retaining of a lawyer for its review
- Retaining a Legal firm for subsequent registration of UBBC
- Implementing a number of stakeholder workshops
- Organizing several Executive Committee meetings and a UBBC General Assembly

Founding Coordinator, UNCST's Open Forum on Agricultural Biotechnology (OFAB) Uganda Chapter (Currently a Member of OFAB Programming Committee at UNCST).

Mr. Makara was the founding Coordinator of the Open Forum on Agricultural Biotechnology Uganda Chapter implemented by the Uganda National Council for Science and Technology (UNCST) from June 2007-August 2008.

He organized a successful Launch of the OFAB in December 2007 and it was attended by two Ministers, the then Minister of Agriculture, Hon. Eng. Hillary Onek; and the then Minister of State for Agriculture, Hon. Dr. Israel Kibirige Sebunya (RIP);

He also organized 8 OFAB Uganda monthly events while still serving as OFAB National Coordinator.

After that, since 2013, Mr. Makara has been serving as a Member of OFAB Programming Committee (Uganda Chapter) that regularly sits and plans for activities and approves strategies of OFAB Project implementation.

Senior Science Officer (Biosafety) (& Secretary, National Biosafety Committee) Uganda National Council for Science and Technology (UNCST) (2007-2008)

Having started off as a Biosafety Desk Officer in 2004, in 2006, Mr. Makara was promoted to the position of Senior Science Officer (Biosafety) at the Uganda National Council for Science and Technology. He had successfully presided over the revamping of the National Biosafety Committee, the review of stakeholder input into the Biotechnology and Biosafety Policy process, among others. He was the Secretary of the National Biosafety Committee (NBC). He presided over development and review of the National Biosafety guidelines including development of Confined Field Trials Guidelines that are still in use to guide researchers conducting GMO experiments in Uganda today.

He further guided the drafting and adoption of the Standard Operating Procedures for Biosafety and Crop specific Handbooks; the Trial Manager's Handbooks as well as Biosafety Inspectors Manual

Biosafety, Inspectors' Manual for Confined Field Trials of GMO crops. This Inspectors Manual is still what the Inspectors use today.

Mr. Makara presided over the approval of Uganda's 1st Confined Field Trials of transgenic crops (banana and cotton) as the Secretary of the National Biosafety Committee. He presided over Stakeholder consultations on the National Biotechnology and Biosafety Policy and was physically present in Cabinet when the National Biotechnology and Biosafety Bill was approved in April 2008. He is thus contributed for the Government adoption of the National Biotechnology and Biosafety Policy 2008.

National Project Coordinator & National Focal Point, UNEP-GEF Project for the Implementation of the National Biosafety Framework (2005-2007)

During the Period 2005-2007, Mr. Makara was appointed the National Coordinator and Focal Point person for the USD1.5million Project for the Implementation of the National Biosafety Framework under the auspices of the United Nations Development Program and Global Environment Facility. These flagship projects were awarded to Countries that had signed and ratified the Cartagena Protocol on Biosafety. Uganda having signed in 2000 and ratified the protocol in 2001 had earlier received a pilot fund during the period 2001-2004; and this project was a now a full-scale project. The targeted outcomes of this project that were effectively achieved under his leadership were: 1) to put in place a system to handle requests/applications involving GMOs; 2) a system for conducting risk assessment and risk management (i.e the operations of the NBC); and the system for public participation and awareness on matters relating to GMOs. Out of this project, presided over by Mr. Makara, a National Consultative Committee (NCC) was instituted and serviced and its activities resulted conducting of a situational analysis of policies and laws relating to biotechnology and GMOs (contracted to Advocates Coalition for Development and Environment (ACODE); development, review and public consultations on the draft National Biotechnology and Biosafety Policy—later approved on 2nd April 2008; and initial ideas or stakeholders views of what would eventually shape up the National Biotechnology and Biosafety Bill (the Principles of the Bill). More than a 20 stakeholders workshops were conducted at national and sub-regional levels; including a High-level public hearing at the International Conference Centre involving members of the 7th Parliament.

Biosafety Desk Officer (& Secretary, National Biosafety Committee), Uganda National Council for Science and Technology (UNCST) 2004-2007

Mr. Makara was appointed as a Biosafety Desk Officer in 2004. His role was to coordinate the activities of the National Biosafety Committee; and to serve as the secretary of the Committee. Under this mandate, Mr. Makara oversaw the redefinition of the roles and responsibilities of the NBC. He developed the Internal Operating Procedures (IOPs) of the NBC and initiated and oversaw the restructuring and strengthening of the NBC. He organised the NBC event at which the outgoing NBC Members were recognised and the new and reappointed members of the NBC were inaugurated. Mr. Makara also convened several meetings of the NBC at which the NBC reviewed and took decision on applications for research involving genetic engineering, such as Recombinant HIV vaccines and Bovine somatotrophin applications.

Part-Time Lecturer, Department of Botany, Makerere University, Kampala (2000-2003)

Mr. Makara was responsible for teaching and assessment of the following undergraduate courses; Plant Physiology; Plant Breeding and Crop Improvement; and Plant Genetics. Mr. Makara also played a key role in development a fully-fledged undergraduate degree program—BSc. In Biotechnology including (but not limited to) development of the course content for the following course units: Biosafety; and Bioethics and Biopolicy, among others.

6. Entrepreneurship and Innovativeness

Mr. Makara is an entrepreneur. He is deploying the knowledge of biotechnology gained through his training to create wealth and employment. He is a proprietor of Nsigotech Africa (U) Ltd, Uganda's no.2 tissue culture laboratory which started operations in 2013. He is engaged in commercial production of tissue culture crops with special focus on bananas and plantain. He believes in the power of scientific knowledge to generate income and create employment.

7. Consultancies & Special Assignments

Dates	Position	Consultancy/ Assignment	Contact Person
<ul style="list-style-type: none"> Common Market for Eastern and Southern African States (COMESA) 			
August 2013- Dec. 2013:	COMESA Consultant:	Conducted a Review/Study of the Status of Biosafety National Biosafety frameworks and Research and development in 18 COMESA countries	<i>Dr. Getachew Belay, Snr Biotechnology Policy Advisor, COMESA Ben Bella Road, Lusaka, Zambia +260 211 253576, gbelay@comesa.int</i>
May-July 2015	COMESA Consultant:	Developed Standard Operating Procedures for Implementation of the COMESA Biotech and Biosafety Policy (Internal Operations COMESA Panel of Experts on Biosafety)	
2009-2011	COMESA/ISAAA Lead Consultant:	Development/Drafting of COMESA Policies and Guidelines for Regional approach to regulation of agro biotechnology in COMESA countries. Involved conducting stakeholder workshops in all the 18 COMESA member states.	
<ul style="list-style-type: none"> Bill and Melinda Gates Foundation (BMGF) 			
January 2011-June 2012	BMGF Consultant	Consultancy on African Biosafety Monitoring and Compliance charged with the following: <ol style="list-style-type: none"> Review and analysis of biosafety issues in BMGF new proposals under consideration by the BMGF (Reviewed three proposals) 	

Dates	Position	Consultancy/ Assignment	Contact Person
		2. Provide strategic advise on project options and feasibility 3. Provide analytical services to assist in monitoring and evaluation of ongoing BMGF grants related to Agricultural Biotechnology in East Africa 4. Provide analysis of biosafety issues in requested projects 5. Provide technical assistance to BMGF projects through: compliance trainings; development of regulatory operating procedures; and providing regulatory advise to project teams.	<i>Lawrence Kent Senior Program Officer Bill and Melinda Gates Foundation Seattle, Washington, U.S.A Lawrence.kent@gatesfoundation.org</i>
August 2013- Feb. 2014	BMGF Consultant	Conducted a Midterm Evaluation of the African Biosafety Network of Expertise (ABNE), a Bill and Melinda Gates funded Program of NEPAD and African Union with its then Headquarters in Ouagadougou, Burkina Faso (currently headquartered in Dakar, Senegal). The evaluation was conducted in Burkina Faso, Ghana, Kenya, Uganda, Tanzania, Ethiopia and Mozambique	
<ul style="list-style-type: none"> • Donald Danforth Plant Sciences Centre (DDPSC), St. Louis, Missouri 			
2013-to date	Donald Danforth Plant Sciences Centre (DDPSC) Consultant Quality Control Specialist/ Auditor	Mr. Makara has running renewable contracts from 2013 to date with the DDPSC for providing consultancy services as a quality Control Auditor for the Virus Resistant Cassava for Africa Project (VIRCA Project). Under this consultancy, I provide quality Control audit of the field and laboratory experimental activities of the project in Uganda and Kenya where the project is being implemented.	Dr. Mark Halsey Director, Product Development, DDPSC, St Louis, Missouri mhalsey@danforthcenter.org
2013 to date	Communication Advisor	Arthur Makara is a Virus Resistant Cassava for Africa Plus (VIRCA Plus) Project Communication Advisor. VIRCA Plus is a BMGF Project implemented by the DDPSC and partners in Uganda (NARO/NaCRRRI) and Kenya (KARLO).	
<ul style="list-style-type: none"> • International Food Policy Research Institute (IFPRI) 			

Dates	Position	Consultancy/ Assignment	Contact Person
May 2013-September 2013	IFPRI Consultant	Co-Consultant on an in-depth study entitled: Biotechnology and Biosafety Development Process in Uganda: A Historical Perspective of Genesis and Stakeholder Involvement. Out of this, a Policy Brief entitled: Biotechnology and Biosafety Law Development Process in Uganda was developed.	Dr. Theresa Sengooba; t.sengooba@cgiar.org
<ul style="list-style-type: none"> • East African Community (EAC) 			
October 2013-December 2013	EAC Lead Consultant	Lead Consultant for the Country Consultations on Development of the Policy Framework for Biosafety for the East African Community (Uganda, Kenya, Tanzania, Rwanda, Burundi)	Ms. Wivine Ntabamuno, Senior Program Officer, EAC, Arusha, Tanzania. wwntamubano@eac.int
<ul style="list-style-type: none"> • Eastern African Farmers' Federation(EAFF) 			
2010-2011	EAFF Consultant:	Consultant for a "Regional Critical Analysis Study of Biotechnology and Genetically Modified Organisms in the Context of Pro-Poorness and Relevance to Small-Scale Farmers in Eastern and Africa"	Mr. Steven Muchiri, CEO, EAFF Secretariat Rhapta Road Westlands, Nairobi, Kenya; Tel: +254204451691
<ul style="list-style-type: none"> • Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) 			
December 2006	ASARECA Consultant	Special Rapporteur for the Tissue Culture Business Network Conference held in Bujumbura, Burundi.	Dr. Charles F. Mogoya, Program Manager, Agrobiotechnology

8. Major Conferences, Workshops and Meetings Organized

- International Conference on Agribiotechnology, Biosafety and Seed Systems in Developing Countries (AgBioSafeSeed 2010), 8-10 March 2010, Kampala
- National Agricultural Biosciences Conference (NaBIO2013), 9-11 November 2014, Makerere University, Kampala

- National Biosciences Conference NaBIO2015), 10-13 November 2015, Makerere University, Kampala, Uganda; NaBIO 2017, November 2017--Plans underway)
- Several National Consultative Meetings on the National Biotechnology and Biosafety Bill 2012: In 2017 alone, SCIFODE facilitated the Committees on Agriculture, Committee on Health, Committee on Natural Resources, and Committee on Budget; and on 1st June 2016, it organized a large Forum of New Members of the 10th Parliament on the National Biotechnology and Biosafety Bill 2012. 78 Members of Parliament attended that Forum.
- National Farmers Forum on Agricultural Biotechnology (NAFFAB): SCIFODE has brought together farmers from different parts of the Country and formed a loose coalition referred to NAFFAB. So far one National Meeting of NAFFAB was held in March 2016, and two subsequent meetings of the Executive Committee of NAFFAB in November 2016 and March 2017.

9. Major Conferences, Workshops and Meetings

- Head of Delegation for the Review of the African Model Law on Biosafety, Addis Ababa, Ethiopia, 2006
- Several Project Based Workshops for the Virus Resistant Cassava for Africa (VIRCA) and the Water Efficient Maize for Africa, presenting papers on Communication and Regulatory Components
- Has facilitated over 30 Science Communication Training workshops; and Regulatory Training Workshops for Scientists in Uganda and in East Africa.
- Mr. Makara has attended the Think Tank Meetings of the Ministry of Science and Technology; and the MoSTI retreat held at Uganda Industrial Research Institute (UIRI) in which he made positive contributions during discussions.
- He has attended biotech related meetings in Thailand, Taiwan, South Africa, United States of America, United Kingdom, Philippines, and all the COMESA Countries during which he has made various presentations.
- Africa Biotechnology Congress, Nairobi, Kenya 2008
- Global Food Security Summit, Cornell University 2015

10. Submissions to Parliament/Cabinet in Uganda

- Attended Cabinet as part of UNCST team to Support the then Minister of Finance on Submission and Cabinet Adoption of the National Biotechnology and Biosafety Policy 2008;
- Presented before the Science and Technology Committee of the 9th Parliament SCIFODE's input into the National Biotechnology and Biosafety Bill, 2012 in February 2014:
- Presented before the Science and Technology Committee of the 10th Parliament SCIFODE's input into the National Biotechnology and Biosafety Bill 2012 in March 2017:
- Presented to the Committee on Agriculture on SCIFODE's input into the Plant Variety Protection Bill; and the Plant Protection and Health Bill in November 2013:
- Presented during the ABBC Conference, Entebbe, Uganda, July 2017:
- Presented to the Journalists of the Nation Media Group on the Role of S&T June 2017:

11. Social Engagement

A member of St. Francis Community at Makerere University, and an active Member of Gayaza B Fellowship in Kampala.

12. Key Scientific Publications

A.M, Makara, Nampala, P. and Oloka, H. (2012). Proceedings of the 1 st International Conference on Biotechnology, Biosafety and Seed Systems in Developing Countries (AgBioSafeSeed2010), Kampala, Uganda. www.scifode-foundation.org/publications
A.M. Makara, Rubaihayo, P.R. and Magambo, M.J.S (2010). Carry-over Effect of Thidiazuron on In-Vitro Proliferation of East African Hyland bananas at different culture cycles and light incubation conditions. <i>African J. Biotechnology, Vol. 9 (21), pp. 3079-3085, 24 May, 2010</i>
Makara A.M. and J. Stein (Eds) 2007, A Handbook for the Conduct of confined Field Trials of Genetically Modified Bananas, Joint UNCST and DDPSC Publication.
C.F. Mugoya, C, Ndiritu and A.M. Makara (2007): Tissue Culture: Opportunities and Challenges in the ECA Region: Proceedings of the Tissue Culture Workshop, Bujumbura, 2006
Oryem-Origa, H. Makara, A.M. and Tusiime, F.M. 2007. Establishment of plant propagules in the acid mine-polluted soils of the pyrite trail in Queen Elizabeth National Park, Uganda. <i>African Journal of Ecology 45(s1):84 – 90</i> .
Makara, A.M. and Tujunirwe and B. Zawedde (Eds) 2006. Proceedings of the National Consultative Workshop for Key Policy Makers and Stakeholders on the Biotechnology and Biosafety in Uganda, UNCST Publication, 2007.
Bananuka, J. A.; Makara, A.M, Mugoya, C & Sengooba T. The Biotechnology and Biosafety Law Development Process in Uganda, IFPRI Policy Brief No, 3, 2013. International Food Policy Research Institute, Kampala, Uganda.

13. Key Newspaper Publications

- 1. Arthur Makara, 2016.** Farmers are calling for the President’s Intervention. New Vision Tuesday, 10th May 2016 (Enclosed)
- 2. Arthur Makara, 2016.** Tips for a firm foundation for new Science Ministry, New Vision, Friday, June 24th 2016 (Enclosed)
- 3. Arthur Makara, 2016.** Science Ministry, a Perfect Gift, New Vision, June 15th 2016 (Enclosed)
- 4. Arthur Makara, 2008.** Uganda Needs a Science Ministry, New Vision, 16th December 2008. http://www.newvision.co.ug/new_vision/news/1174723/uganda-ministry-science

14. Referees

1. Dr. Anton Bua

Principal Research Officer
National Crops Resources Research Institute
National Agricultural Research Organisation
P.O. Box 7084Kampala, Uganda
Email: atonbua@gmail.com

2. Dr. Charles F. Mugoya,

Chairman, National Biosafety Committee (NBC)
C/o Uganda National Council for Science and Technology (UNCST)
Tel: 0772966662

3. Dr. Getachew Belay

Senior Biotechnology Advisor

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