# **Curriculum Vitae**

Names: Richard Tuyiragize (PhD)

Profession: Statistician

Sex: Male

Date of birth: 01/05/1969

Nationality: Ugandan

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#### **Summary:**

Richard Tuyiragize studied statistics at the School of Statistics and Planning, Makerere University Uganda. He has Bachelor's and Master's degrees in Statistics from Makerere University, and a PhD from University of Cape Town, South Africa. He updated his professional skills by earning the postgraduate diploma in monitoring and evaluation certification from the Uganda Management Institute.

Richard has been a lecturer of "Applied Statistics" for over 20 years, teaching "Operations Research" and "Advanced Statistical Methods" to undergraduate students, and "Mathematical Programming in Applied Economics" to postgraduate students. He also supervises undergraduate research dissertations and postgraduate theses. He has co-authored and published a number of journal articles. In addition to his academic responsibilities, Richard has consulted in statistical analysis with private and public sector, as well as collaborating with local and international organizations.

His primary area of research is applied statistics and statistical learning; and areas of expertise spans several fields, including Research design and implementation; Statistical data mining and analytics; Mathematical programming and optimization techniques, Survey methodologies, and Program monitoring and evaluation. He has organized and held several statistical capacity building workshops. The clients include government agencies, non-profit and private sector companies, graduate students, and individual research professionals.

#### **Education:**

INSTITUTION	DEGREE	COMPLETION DATE
Uganda Management Institute	Postgraduate Diploma (Monitoring & Evaluation)	October 2016
University of Cape Town (South Africa)	PhD in Statistics	December 2011
Makerere University (Uganda)	Master of Statistics	October 1997
Makerere University (Uganda)	PG Diploma in Statistics	May 1995
Makerere University (Uganda)	Bachelor of Statistics	June 1993

### **Employment record:**

1998 to date: Lecturer, Department of Planning and Applied Statistics, Makerere University, Uganda

- Teach Operations Research and Advanced Statistical Methods to undergraduate students in the day/evening/weekend programmes
- Teach Mathematical Programming in Applied Economics to MSc (Quantitative Economics) postgraduate evening/weekend students.
- Supervising undergraduate and postgraduate research dissertations and theses respectively
- Research and community outreach work

#### 1994 – 1997: Assistant Lecturer

• I taught Operations Research and Statistical Data Analysis and Modeling using SPSS, SAS and Microsoft Office applications, to undergraduate students

### **Publications:**

- **2021** Kisaakye, P, A Nzabona, C Kakuba, JB Asiimwe, J Mushomi, **R Tuyiragize**, et al. 2021. Youth migration and perception on business start-up in Uganda, *Journal of Global Entrepreneurship Research*. doi: http://dx.doi.org/10.1007/s40497-021-00287-w
- Nzabona, A, R Tuyiragize, JB Asiimwe, C Kakuba, and P Kisaakye. 2021. Urban Household Energy Use: Analyzing Correlates of Charcoal and Firewood Consumption in Kampala City, Uganda, Journal of Environmental and Public Health 2021: 5904201. doi: http://dx.doi.org/10.1155/2021/5904201
- Anita, P, Nzabona, A and **Tuyiragize R**. Determinants of female sterilization method uptake among women of reproductive age group in Uganda. *Contracept Reprod Med* **5**, 25 (2020). https://doi.org/10.1186/s40834-020-00131-8
- 2020 Samuel Majalija, Gabriel Tumwine, Juliet Kiguli, James Bugeza, Marvin Apollo semadaali, Hebert Brian Kazoora, Esther Namukose Muwanguzi, Noelina Nantima Richard Tuyiragize "Pastoral community practices, microbial quality and associated health risks of raw milk in the milk value chain of Nakasongola District, Uganda". Pastoralism 10, 3 (2020). https://doi.org/10.1186/s13570-020-0158-4
- Abel Nzabona, John Bosco Asiimwe, **Richard Tuyiragize**, Christian Kakuba, John Mushomi, Fred Maniragaba. "Factors associated with tobacco-smoking in Uganda's leading tobacco-growing regions"; Africa Population Studies, Volume 33, No. 2; https://doi.org/10.11564/33-2-1383
- 2019 Abel Nzabona, John Bosco Asiimwe, Christian Kakuba, Richard Tuyiragize, John Mushomi. "Correlates of youth internal migration and employment in Uganda". Africa Population Studies, Volume 33, No. 1; https://doi.org/10.11564/33-1-1347

- 2017 Bellows B, Mackay A, Dingle A, Tuyiragize R, Nyombi W, Dasgupta A. "Increasing Contraceptive Access for Hard-to-Reach Populations with Vouchers and Social Franchising in Uganda. *Global Health Science Practice*. 2017 Sep 28;5(3):446-455
- **2007:** Niringiye Aggrey and **Tuyiragize Richard**; *Determinants of a Firm's Level of Exports: Evidence from Manufacturing Firms in Uganda*, African Journal of Economic Policy, 14(2), 2007.

### Research, Research support and Dissemination:

- **2017:** Uganda National Family Planning Conference held on 26<sup>th</sup> 27<sup>th</sup> September 2017. Presented a paper titled "Estimating the Impact of Contraceptive Uptake in Uganda (oral presentation).
- **2013: Richard Tuyiragize**, William Nyombi, and Kelsi Kriitmaa; "*Abstract: Client follow-up study with family planning voucher clients*", presented at the International Conference on Family Planning, November 12 15, 2013, Addis Ababa, Ethiopia.
- 2013: Richard Tuyiragize, Steven Baveewo, and Christine Namayanja; Abstract: Determinants of intrauterine device (IUD) uptake: Evidence from Mariestopes Uganda social franchise (BlueStar) network, Poster presented at the International Conference on Family Planning, November 12 – 15, 2013, Addis Ababa, Ethiopia.
- **2011:** "Multi-objective Optimization Techniques in Electricity Generation Planning", Unpublished PhD thesis, University of Cape Town.
- **2007:** Multi-objective Linear Programming Model for Electricity Generation Planning in Uganda" at a joint conference of the Operations Research Society of South Africa (ORSSA) and Operational Research Practice in Africa (ORPA), hosted by the University of Cape Town,10-14 September, 2007.
- **2007:** AERC Biannual Research workshop held 2<sup>nd</sup> 7<sup>th</sup> June, 2007, at the Hotel Inter-Continental, Nairobi, Kenya. Presented a paper titled "Determinants of a Firm's Level of Exports: Evidence from Manufacturing Firms in Uganda"
- **2004:** Introduction to Gender Analysis: A workshop organized by the Gender Mainstreaming Division, Department of Women and Gender Studies, Makerere University, 21<sup>st</sup> 24<sup>th</sup> July, 2004, Colline Hotel, Mukono.
- 2003: The International Statistical Institute (ISI) 54<sup>th</sup> Session held 13<sup>th</sup> 20<sup>th</sup> August 2003, Berlin, Germany

#### **Consultancies:**

Period	Employing organization,	Summary of activities performed relevant to the
	title/position. Assignment or	position
	Project, Contact information for	
	references	

01/2019 _ 05/2020	Employing organization:  African Development Bank  Position: Statistical Data Analyst  Name of assignment or project:  Uganda Food Balance Sheet  (2013 – 2018)	<ul> <li>Supported Uganda Bureau of Statistics (UBOS) an other national stakeholders to complete the Food Balance Sheet basic information/data;</li> <li>Used Ms Excel and SPSS to validate, process an analyze large scale statistical data sets related to food Supply utilization accounts and Food Balance Sheet data from UBOS and FAOSTAT;</li> <li>Interpreted results and produced a final Uganda Food Balance Sheet (2013 – 2018) analysis report. It can be accessed on</li> </ul>
		https://www.afdb.org/en/documents/uganda-food-balance-sheets-report-2013-2018
08/2017 - 12/2018	Employing organization:  Marie Stopes Uganda (MSU)  Position: Senior Research Monitoring and Evaluation Manager  Name of assignment or project: Prevention of Maternal Deaths (PMD) Project funded by DFID	<ul> <li>Provided leadership and management of the Research Monitoring and Evaluation (RMI department.</li> <li>Developed monitoring and evaluation log frames and performance monitoring plans, with clearly defined indicators aligned to MSU's business plan and DFI donor requirements;</li> <li>Led the development, management and implementation of project evaluations (baselined midterm and end line), assessments, species studies/surveys and operations research;</li> <li>Developed sampling methodologies and supervised data collection using mobile technology (OD platform)</li> <li>Coordinated development of technical study protocols, conducted data processing and management; and data quality assessments on all keeperformance Indicators;</li> <li>Led on qualitative and quantitative data analysed using statistical software like STATA and Ms Exceleptor (pivot tables);</li> <li>Generated data visualizations using the Tableat software to communicate findings to inform projectimplementation.</li> </ul>
	Employing organization: Ministry of Agriculture, Animal	Team leader for the 1-month training in agricultural statistics to district agricultural extension staff from
	Industry and Fisheries	116 District Local Governments. The objective was t equip the extension field staff with enhanced skil
	Position:	and knowledge with respect to their ability to collec
	Statistics Training Consultant	process, analyze and interpret, transmit an disseminate agricultural data.
	Name of assignment or project:	<ul> <li>Facilitated training in Agricultural data processing an analysis using Excel and Data Quality Assurance</li> <li>Training modules included;</li> </ul>

July – August 2017	Training in agricultural statistics to Agricultural Extension staffs in Uganda	<ul> <li>i. Agricultural data collection procedures and Sources of data.</li> <li>ii. Agricultural Sampling Designs and Concepts</li> <li>iii. Basic statistical methods for describing and summarizing data</li> <li>iv. Agricultural data processing and analysis using Excel</li> <li>v. Data Quality Assurance and data dissemination</li> </ul>
04/2015 _ 07/2017	Employing organization:  Marie Stopes International Uganda (MSIU)  Position:  Research Monitoring and Evaluation Specialist  Name of assignment or project: Long-Term Family Planning (LTFP) Project funded by USAID and DFID	<ul> <li>Provided overall leadership in research, monitoring, and evaluation (RME) of USAID and DFID funded projects;</li> <li>Assisted project staffs with information, tools and resources to improve performance.</li> <li>Led all data collection using ODK technology and processing, data analysis using STATA, in all research and evaluation studies (baseline, midterm and end line surveys);</li> <li>Responded to periodic USAID, DFID and Headquarter office requests for data/information on project activities and results;</li> <li>Liaised with Chief of Party and Technical staff to ensure project milestones are achieved;</li> <li>Regularly conducted ad hoc research studies and shared findings to project managers to enable them develop evidence-to-actions plans, as well as informing Business planning.</li> </ul>
06/2011 - 11/2014	Employing organization:  Marie Stopes Uganda (MSU)  Position:  Senior Analyst (Research Monitoring and Evaluation Manager)  Name of assignment or project: Expanding Access to Long-Term Family Planning Methods (LTM) Project funded by USAID/Uganda	<ul> <li>Provided leadership role to RME staff in study design, implementation and analysis.</li> <li>Prepared study protocols, work plans, budgets, reports and other required documents.</li> <li>Ensured appropriate reporting against the Project Framework to MSU Country Director and Programme managers.</li> <li>Conducted population level surveys in sexual and reproductive health and family planning,</li> <li>Undertook in-depth statistical data analyses using STA and SPSSS;</li> <li>Managed and supervised field coordinators for the implementation of research activities.</li> </ul>
06/2011 - 01/2012	Employing organization: Social & Scientific Systems, Inc  Position: Data Management Specialist	<ul> <li>Designed OVC assessment tools</li> <li>Supervised field data collection;</li> <li>Conducted statistical data analysis using SPSS</li> <li>Developed the OVC index.</li> <li>Piloted and validated OVC Index.</li> </ul>

04/2010 - 02/2011	Name of assignment or project:  Development of the orphans and vulnerable children (OVC) vulnerability index for Uganda  Employing organization:  Ministry of Gender, Labor and Social Development  Position: Statistician  Name of assignment or project: Baseline survey on gender-based violence in Busoga region, Uganda	<ul> <li>Managing the consulting team in all aspects related to the implementation of baseline surveys on gender-based violence in Busoga region;</li> <li>Provided technical support to the team in the field on survey and data collection tools;</li> <li>Performed statistical data analysis using SPSS and Nvivo;</li> <li>Prepared draft and final survey reports.</li> </ul>
09/2009 - 03/2010	Employing organization: Population Council  Position: Statistician/Data Manager  Name of assignment or project:  Monitoring and evaluation of the emergency plan progress (MEEPP) project - funded by USAID	<ul> <li>Designed assessment and monitoring tools for social development projects in Uganda at national and district level;</li> <li>Coordinated data collection exercise with enumerators and data entry agents;</li> <li>Conducting data analysis using SPSS</li> <li>Evaluated the comprehensiveness, inter-operability with national systems, ease of use, and actual use of the data base.</li> <li>Participated in writing final report</li> </ul>
11/2009 - 01/2010	Employing organization: Development Consultants International Ltd (DCI)  Position: Statistician and Data Analyst  Name of assignment or project: Situation Analysis/Baseline Survey for the development of the behavior change communication strategy on the Kampala Integrated Environmental Planning and Management Project (KIEMP)	<ul> <li>Supervised the data collection after having conducted pre-field training</li> <li>Coordinated multiple tasks and activities of data entry agents, enumerators and data processing</li> <li>Conducted data analysing using SPSS and Nvivo.</li> <li>Participated in report writing</li> </ul>
02/2008 - 06/2008	Employing organization: International Finance Corporation (IFC), World Bank	<ul> <li>Designed survey instruments and tools</li> <li>Supervised the field data collection, data entry and processing</li> </ul>

	Position: Statistician  Name of assignment or project:  Market survey of the private education sector in Rwanda	<ul> <li>Developed a comprehensive database of private schools in Rwanda</li> <li>Conducted data analysis and management using SPSS</li> <li>Participated in survey report writing</li> </ul>
08/2006 - 12/2006	Employing organization: TIG Marketing Consult Ltd  Position: Statistics & Data Management Specialist  Name of assignment or project:  Market assessment study for the development of a Marketing and Communications strategy for Micro Finance Support Centre Limited-Uganda	<ul> <li>Developed sampling methodology and sample size calculation</li> <li>Designed data collection tools for the market assessment,</li> <li>Supervised the field data collection for the assessment</li> <li>Conducted computerized data and information processing using EpiData</li> <li>Data analysis using SPSS and MS Excel</li> <li>Participated in report writing for the market assessment study</li> </ul>
08/2004 - 11/2004	Employing organization: TIG Marketing Consult Ltd  Position: Data Analysis Specialist  Name of assignment or project:  Tourism market study for Uganda Wildlife Authority (UWA)	<ul> <li>Developed study data collection instruments and tools;</li> <li>Developed the sampling plan and calculated sample size</li> <li>Participate in field data collection</li> <li>Supervising the data entry and processing</li> <li>Statistical data analysis using SPSS</li> <li>Participating in study report writing</li> <li>Participated in developing of Uganda Wildlife Authority Business Plan 2005/6-2009/10.</li> </ul>

# Membership to professional bodies:

- Member of Uganda Statistical Society
- Member of Uganda Evaluation Association

### Awards:

2007: I was awarded *USHEPiA* Fellowship to pursue PhD studies at University of Cape Town, South Africa. USHEPiA (University Science, Humanities and Engineering Partnerships in Africa) is a regional network of selected universities in Southern and Eastern Africa dedicated to sandwich postgraduate training at Master's and PhD degree levels of academic staff and research attachment at the University of Cape Town (S.Africa). I successfully completed the PhD degree in 2011.

**1995:** The German Academic Exchange Service (*DAAD*) awarded me a fellowship to pursue a postgraduate diploma in Statistics at Makerere University. I passed with a CLASS II, and subsequently awarded further fellowship to pursue a Masters of Statistics for the period 1996 through 1997.

### **Workshops/Conferences:**

- **2017:** Uganda National Family Planning Conference held on 26<sup>th</sup> 27<sup>th</sup> September 2017. Presented a paper titled "Estimating the Impact of Contraceptive Uptake in Uganda (oral presentation).
- **2013:** Team building workshop by Coach Africa Ltd, held at the Sheraton Hotel (Uganda) on June 15<sup>th</sup> 2013.
- **2008:** The 18th Triennial Conference of International Federation of Operational Research Societies (IFORS) from July 13 -18, 2008, held in Johannesburg, South Africa.
- 2007: Joint conference of the Operations Research Society of South Africa (ORSSA) and Operational Research Practice in Africa (ORPA), hosted by the University of Cape Town, 10-14 September, 2007. Presented a paper titled "Multi-objective Linear Programming Model for Electricity Generation Planning in Uganda"
- **2007:** AERC Biannual Research workshop held 2<sup>nd</sup> 7<sup>th</sup> June, 2007, at the Hotel Inter-Continental, Nairobi, Kenya. Presented a paper titled "Determinants of a Firm's Level of Exports: Evidence from Manufacturing Firms in Uganda"
- **2004:** Introduction to Gender Analysis: A workshop organized by the Gender Mainstreaming Division, Department of Women and Gender Studies, Makerere University, 21<sup>st</sup> 24<sup>th</sup> July, 2004, Colline Hotel, Mukono.
- 2003: The International Statistical Institute (ISI) 54<sup>th</sup> Session held 13<sup>th</sup> 20<sup>th</sup> August 2003, Berlin, Germany

#### **Referees:**

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# 2. Mr. Ben Paul Mungyereza

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