

# THE INTERUNIVERSITY RESEARCH AND INNOVATION COMMUNITY FOR THE EARLY CAREER RESEARCHERS IN UGANDA

#### IRIC-ECRU YEAR 1 MID-TERM EVALUATION REPORT 10/20-02/21









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# **Contents**

About IRIC-ECRU	2
Purpose of the mid-term evaluation	
Evaluation Methodology	
The planned & executed activities, registered outputs & outcomes	
Challenges	7
Conclusion of the evaluation and way forward	
Acknowledgement	9

## **About IRIC-ECRU**

In September 2020, the Network for Education and Multidisciplinary Research Africa (NEMRA) received one-year seed fund from the Government of Uganda (GoU) through the Makerere Research and Innovation Fund (Mak-Rif) to create an interuniversity research and innovation community for the early career researchers in Uganda (IRIC-ECRU). Run as a 5-year project 2020-2025, the project's aim is to enhance researcher capacity building, R&I, data & information sharing as well as technology enabled research outputs dissemination, engagement and impact. It is coordinated by investigators from Makerere University (Mak), Mbarara University of Science and Technology (MUST), Uganda Christian University (UCU) and Muteesa I Royal University (MRU). IRIC-ECRU focuses on 4 core areas that guide the project objectives 1) Research capacity building and mentorship, 2) Data infrastructure development and management 3) Research ideas generation and execution, 4) Research output dissemination

#### Research capacity building and mentorship

The research capacity building at IRIC-ECRU specifically targets to build expertise of doctoral students and early career researchers to be independent researchers by gaining the transferable skills in the following three researcher development domains:

- 1. Personal effectiveness i.e. personal qualities for an effective researcher like self-management, communication, integrity and time management
- 2. Research governance and organization i.e. the knowledge of the standards, requirements and professionalism to do and manage research
- 3. Engagement, influence and impact i.e. collaboration, partnership building, as well as the knowledge and skills to work with others and ensure knowledge and innovation transfer for the wider impact of research to society

Ultimately, the research community will support the development of new methodologies, enhance professionalism and create awareness of as well as engagement in the national development research agendas.

#### Data infrastructure development, sharing and management

One of the objectives of the IRIC-ECRU is to establish an inter-university large-scale soft research data infrastructure—i.e.: repositories and tools to promote data & knowledge sharing activities and cross-campus collaborations. The targeted outcome of this objective is a large soft infrastructure developed as an organised collection of scholarly output of participating scholars and institutions. As an interinstitutional repository, it is identified as scholarly; cumulative; open and interoperable aided by new technology. The project will operate physically and virtually with a research agenda that supports institutional and national research and innovation agendas.

#### Research ideas generation and execution

Conducting annual joint short-term research projects by inter-university and interdisciplinary teams from the various institutions is one of the intentions of IRIC-ECRU. The projects are preceded by identification of gaps in multidisciplinary research, R&I ecosystem building as well as knowledge and technology transfer for development in the country. Consequently, a network of early career researchers enhancing interdisciplinary and multidisciplinary approaches to solve problems is expected to yield better returns on research and innovation investment in the country.

#### **Research output dissemination**

IRIC-ECRU intends to enhance research outcome dissemination by digital approaches to support policy and the national research and innovation agenda.

The IRIC-ECRU is in the first-year studying the policies of each partner University and seeking clearance from University leaders to establish linked repositories and formatting research community digital dissemination of research outcomes. Also, given that the Research Community will support open science, the first year is dedicated working on protocols and increasing awareness of the trending idea of open science and its benefits to the university community

## Purpose of the mid-term evaluation

The purpose of the mid-term evaluation is to serve two fold: improve decision-making and taking stock of initial lessons from experience.

In specific terms this mid-term evaluation will enable the IRIC -ECRU to:

- Review the effectiveness of the project's implementation in terms of achieving the stated objectives.
- Identify the impact of the activities so far.
- address particular issues or problems in design, implementation and management.
- reinforce initiatives that demonstrate the potential for success.

## **Evaluation Methodology**

The mid-term evaluation is structured around two of the five UNEG standard evaluation criteria i.e. *effectiveness* and *impact* (Rogers,2014)<sup>1</sup> as operationalised in following table 1 below. The anticipated and unanticipated challenges are also considered.

Table 1: Evaluation Criteria

Effectiveness	The extent to which the planned activities were executed and milestones		
	achieved within the mid-term project timeframe		
Impact	The outputs registered, the extent to which the anticipated outcomes were		
	realised and the long term effects on the issues within each of the four project		
	objectives.		

The analysis is guided by evaluation questions to explain "the extent to which", "what", and "how" specific outcomes were attained.

<sup>&</sup>lt;sup>1</sup> Rogers, P. J. (2014) Overview of impact evaluation. Impact Evaluation No. 1 Accessed on 29/01/21 on this <u>link</u>

## The planned & executed activities, registered outputs & outcomes.

Varied activities have been conducted under the 4 core areas of the project. This section presents the review by highlighting the planned activities and milestones, the executed activities, and the impact of the project so far in terms of the output and outcome of each activity.

### 1. Research capacity building and mentorship

The planned major activities and milestones under research capacity building are:

- i. Conduct monthly inter-University 3-hour seminars targeting 40 participants at each seminar
- ii. Conduct three Co-Creation workshops by end of the project

The table below presents the activities that have been realised so far in relation to training and mentorship. Their impact is also indicated.

	Impact			
Ac	tivities so far realised	Output	Outcome	
1	A 3-hour seminar on <i>The</i> researcher as an entrepreneur and the basics of <i>IPR</i> October with Dr. Kevin Byron	46 participants from 13 HEIs and others	Networks built from over 15 institutional representations in Uganda and abroad.  The principles shared in the December	
2	A 3-hour seminar on <i>Writing</i> for publication November with Dr. Peter Samuels	41 Participants from 17 HEIs and others	seminar guide the IRIC-ECRU literature review manuscript writing activity.	
	A 3-hour seminar on <i>How to</i> write a review paper December with Dr. Dermot Breslin	19 Participants from 7 HEIs and others.	Increased awareness of the purpose and strategies for effective online profiling of researchers and visibility as well as	
3	A 3-hour seminar on <i>The</i> Researcher's visibility through open access- January with Dr. Fredrick Lugya	38 participants from 11 HEIs and others.	improved knowledge of the trends in open science in research.	
4	A 3 hour seminar on <i>Open</i> access and use of data for development in Africa – February with Mr. Charles Bundu	15 participants from 6 HEIs and others.  Materials for continual learning provided by facilitators		
5	The first ever interuniversity 5-days Co-Creation workshop on Academic Writing in Uganda held 8 <sup>th</sup> -12 <sup>th</sup> February	1-3 hours fifteen sessions on academic writing delivered by international and local facilitators.  Workshop program successfully executed  43 participants from HEIs, government and NGOs in Uganda and Zambia, Nigeria (13 institutions in total) (Slightly over the target)  Several materials provided by facilitators for eventual development into a training manual  The workshop was covered in the media. See the links Link1 Link2 Link3 Link4	Accelerated catchup on individual and group pending writing assignments for dissertations, manuscripts, etc.  Interuniversity networks enabled and writing communities/accountability groups established.  Resilience for writing built from shared experiences of senior academics  A senior academic mentioned "Thank you. Initiatives like these will make our PhD supervisory roles easier"	

The outputs and outcomes of the research capacity building and mentorship activities are considered satisfactory for the mid-term period. The challenges and way forward are presented in general terms later in this report.

#### 2. Data infrastructure development, sharing and management

The activities under data infrastructure development, sharing and management also involved defining IRIC research agenda and creating an IRIC-ECRU centre from where the projects operates. The planned major activities and milestones under this area are:

- 1. Establishment of the physical IRIC-ECRU coordination Center 30.12.2020
- 2. Evaluate existent research agendas 30.11.20
- 3. Define IRIC Research agenda by 30.01.2021
- 4. Carryout resource mapping for the IRIC-ECRU repository and define technical and other requirements 30.02.21
- 5. Establish the IRIC-ECRU repository and interuniversity agreement (MOU) 30.04.21

The table below presents the activities that have been realised so far in relation to data infrastructure development, sharing and management. Their impact is also indicated.

Impact			
Ac	tivities so far realised	Output	Outcome
1	A field visits to each of the partner institutions to map out institutional resources	4 meetings with institutional leaders, ICT and library officials	Participatory model of developing the interuniversity repository
2	Follow-up discussions at MUST, Mak and MRU	3 meetings with ICT and library officials at Mak, MUST and MRU	embraced and adopted by the stakeholders.
3	A special meeting for technical persons with representation from the 4 partner institutions	An interuniversity technical committee of 7 members established to steer the agenda of the IRIC-ECRU repository.  A draft framework of the repository	Accelerated awareness of opportunities and challenges around
4	Data analysis from the field visits	A report about the existent resources and limitation at IRIC-ECRU partner institutions data management and sharing infrastructures.	data/information management and sharing.
5	Collection and analysis of data about individual, institutional and national research agendas through a survey and interviews.	Interviews with research leaders at IRIC-ECRU partner institutions  Survey data from 39 respondents including PhD students, academics, government officials and private sector practitioners' concerning individual and institutional research agendas.  A report on the analysis of existent research agendas.	
6	Writing sessions to compile IRIC-ECRU Research Agenda	IRIC Research Agenda document  An amalgamated report about existent research agendas and existent repositories	A refocused direction of IRIC research agenda.
7	Public consultation about IRIC-ECRU Research agenda	A 3-hour public dialogue with 46 local and international participants, 3 discussants (Prof. William Bazeyo of Makerere, Dr. Jane Egau Okou of MoES, Dr. Maxwell Otim of MoSTI  A wide array of views about IRIC Research agenda from participants and discussants of the public dialogue	Input to be made into the National Research Framework for Development under discussion by the NPA and partners
8	Various admin activities towards establishment of the physical centre	Budget and requisition for procurable items submitted to Mak-Rif for release of funds.  Space provided for at MRU research centre. An operational secretariat with 2 staff recruited; Project Manager and Project Accountant with signed contracts.	The physical address of IRIC-ECRU provides a source of confidence to the community users and facilitates communication

Apart from the delayed furnishing of the centre with the necessary equipment, the outputs and outcomes of the data infrastructure development, sharing and management activities are considered satisfactory for the mid-term period. Other challenges and way forward are presented in general terms later in this report.

#### 3. Research ideas generation and execution

IRIC-ECRU is carrying out literature reviews by teams comprising of interuniversity members from various universities in Uganda. The reviews are aimed at achieving the following objectives

- i. Enhance the community members' writing and publication skills.
- ii. Identify gaps in the "R&I in Uganda" existent works consequently leading to empirical research ideas for developing further by the teams and submitted for funding. (This is key for sustainability of the project beyond the first year.)
- iii. Nurture teams for engagement in the empirical research projects as proposed in the plans for subsequent years of the IRIC.

The milestones for the literature reviews are as follows

3500 words draft – February 28<sup>th</sup>

7000 words draft - March 30th

Empirical research concept idea – April 30<sup>th</sup>

Proposal for funding of the empirical idea – May 30<sup>th</sup>

Submission of the review manuscript to the peer reviewed journal – June 30<sup>th</sup>

The table below presents the activities that have been realised so far in relation to joint research ideas intent. Their impact is also indicated.

	Impact		
A	ctivities so far realised	Output	Outcome
2	Designing and circulating a call for participation  Review of concepts, selection and formation of teams of investigators	7 concepts selected out of the 16 concepts submitted and reviewed. (2 teams did not pick the momentum)  Five interuniversity teams started off (average 3 members per team)	Improved awareness in the IRICommunity of the key issues around R&I in Uganda
3	Project familiarisation meetings and online engagement	<ul><li>3 project familiarisation meetings held in November, December and January.</li><li>6 online engagements conducted</li></ul>	Interuniversity networking created through teams comprising of investigators
4	Investigators drop in research clinics for support	3 drop in sessions conducted in January and February; representatives of the teams drop in for inquiries and support.	Investigators, who are dominantly PhD students, are having their team work and project management skills enhanced.
5	Teams writing sessions	3500 words draft from each team	Team skills developed among the participants.

The outputs and outcomes of the joint research projects activities are considered satisfactory for the mid-term period. The challenges and way forward are presented in general terms later in this report.

#### 4. Research output dissemination

Research output dissemination idea is intended to assist IRICommunity members to engage and impact the public during the research process and with their research outputs. This has not been enabled during the mid-term period of the project's first year. Instead, the project team has been disseminating information about IRIC-ECRU's vision to create and enhance awareness and involvement in the community.

The table below presents the activities that have been realised so far to disseminate the IRIC-ECRU vision and activities.

Impact			
Ac	tivities so far realised	Output	Outcome
1	Public dialogue	See evaluation of "defining the IRIC Research agenda" above	
2	IRIC-ECRU Website development	IRIC-ECRU hosted on NEMRA website	Online visibility of the project attained
3	Website content development and upload	Information about IRIC-ECRU, activities and materials uploaded	
4	Designing and printing promotional materials	Promotional materials designed and printed are: IRIC Pull-up banner and brochures.	
		An information pack provided to institutional leaders and participants in the consultations. (The content is 1. Summary of the project, 2. IRIC theory of change, 3. Discussion questions 4. IRIC brochure summaries Q&A about IRIC)	Accelerated awareness of IRIC-ECR vision among the stakeholders
		IRIC logo ( <i>Pending application for IPR</i> ) IRIC headed paper	
5.	Media engagement	IRIC-ECRU social media pages developed (Facebook and LinkedIn. IRIC-ECRU is hosted on NEMRA twitter handle)	
		Interview held with the Daily Monitor Newspaper and information about IRIC-ECRU published in the Education Corner	
		For other media engagements see evaluation of "Workshop" under the capacity building and mentorship activities.	

The outputs and outcomes of the research output dissemination activities are considered satisfactory for the mid-term period. The challenges and way forward are presented in general terms later in this report.

## **Challenges**

The challenges experienced during the execution of activities in the midterm period are outlined here below:

- 1. The Covid-19 restrictions to physical meeting are a challenge to efforts towards building a community as the Ugandan and generally the African culture values physical interactions. Physical meetings are being planned as restrictions get eased.
- 2. Inadequate technological skills and limited availability of fast internet is a challenge. Some participants have not been able to engage in the project meaningfully as they would have loved to.

The project team also has to make a lot of unprecedented adjustments to use technology and the internet to deliver the activities. The budget has been readjusted to cater for expenses for involving technology experts in the project, subscribe to online meeting platform providers, purchase data for fast internet and conduct discussion on the use of the internet to work with others.

- 3. Differing Institutional context and structures is a challenge. This project is meant to work on ecosystems, however the management, resources and functioning of public and private universities differ. Inherently there are competing interests among institutions. Harmonising these interests may take a long time. The project has encouraged institutions to define their commitment and responsibilities.
- 4. The participants in the literature review teams are working with the design for the first time. All of them are writing a literature review manuscript for the first time and working with an interuniversity team for such a project has been an uncharted territory for them. There are challenges in the process of building team cohesion and focus. Most are also PhD students and therefore already have many research and training commitments. They are being encouraged to plan well, develop discipline, communicate well within the group and keep focused on the goal. Regular meetings are organised for this purpose.
- 5. Limited budget and flow of finances. Most of the activities are carried out voluntarily. The grant amount is way below the cost of the activities done and funds are not dispatched in a timely manner. Various service providers and facilitators who have been participating in the project since January 2021 offered their services on credit; they are yet to be paid. This might strain the working relationships with them A lot more could be done with a steady flow of finances and a more robust financial support. The project has also accumulated a lot valuable data through participants' feedback on activities. These data require expertise in M&E for analysis to infer ideas for an effective interuniversity R&I community, interuniversity networking and enhancement of research capacity building in Uganda. Such services are not affordable for the project. The team has also realised that technical expertise is key in the process developing the IRIC-ECRU repository and capacity building for the same. This requires heavy investment. The last quarter of the project will involve mobilisation of more actors in the project for a wider financial base.
- 6. The project lacks equipment. Although budgeted and requested for, the wait for this form of facilitation is still on.

## Conclusion of the evaluation and way forward

All the planned activities are on schedule and the outputs are satisfactory.

The monthly seminars have all been convened as scheduled and interuniversity participation of PhD students and early career researchers satisfactory. Only one local facilitator was engaged. A pool of more local facilitators is being developed for the next four seminars. The last Co-Creation workshop on securing and managing research grants will also be facilitated by local experts. The development of a training manual from these sessions is one of the target outputs for the final period of this project. An M&E expert will be engaged to analyse the participants' feedback for a better understanding and development of strategies for effective research capacity building and development in Uganda.

The process of building a repository has also made significant strides. Technical support will continually be sought both locally and beyond. A sufficient budget will be included in the proposal for

funding year 2 of the project to cover the unanticipated costs that were discovered in the mid-term period. Profiling researchers in Uganda and their works will be added on this core area of the project in the next period.

The project team has appreciated that the literature review teams are challenged by the task and are struggling. Senior academics will be invited and attached to the teams that are specifically having challenges that currently threaten their ability to deliver on the objective.

Re-alignment has been made on plans to have an animated video to disseminate the IRIC-ECRU vision. The medial coverage done so far is considered sufficient. Regular update of the social media handles and website coverage of the next period events will facilitate this purpose and dissemination of findings from the literature review exercise.

This mid-term review was meant to guide the team on:

- Reviewing the effectiveness of the project's implementation in terms of achieving the stated objectives. This has been achieved by looking at the outputs of the project in the mid-term.
- Identifying the outcomes of the activities so far. Although it is not possible to fully analyse the realisation of the outcomes, there are indications that the activities are having a significant impact on individuals, institutions and society generally.
- Addressing particular issues or problems in design, implementation and management of the project. Reflection on the challenges identified above is ongoing to re-align strategies, plans and activities.
- Reinforcing initiatives that demonstrate the potential for success. In writing the proposal for funding for year 2, the team is reflecting on the possibility of refocusing the project on fewer core areas rather than all the four. A possibility of bringing more actors on board beyond the four partner institutions is also being considered.

## Acknowledgement

The first year of this project is run with funding support from the Government of Uganda through the Makerere Research and Innovation Fund.

Apart from the IRIC-ECRU investigators, researchers in Uganda and abroad are involved in the execution of the project activities as capacity building facilitators, investigators on the joint desk research projects and technical personnel for the development of the interuniversity repository. In no particular order, these are listed here below:

- 1. Ms. Mahadia Tunga- Tanzania Data Lab, The University of Dar el Salaam
- 2. Dr. Sabastian Rwengabo Centre for Basic Research, Uganda
- 3. Dr. Edgar Nabutanyi Makerere University, Kampala
- 4. Dr. Fredrick Lugya's 7-member repository technical committee IRIC partner institutions
- 5. Dr. Dermot Breslin The University of Sheffield, UK
- 6. Dr. Sandrine Soubes Tesselle Development, UK.
- 7. Dr. Peter Samuels Birmingham City University, UK
- 8. Dr. Kevin Byron The University of Leeds, UK
- 9. Ms. Julianna Kayaga Sseremba and team members writing Literature Reviews— Various Institutions
- 10. Dr. Christine Mwebesa Ndejje University
- 11. Ms. Anita Ashaba The National Banana Research Programme, Kawanda

Various institutional leaders, academics, research students and practitioners in Uganda have been involved in this project as interviewees and survey respondents on individual, institutional and national research agendas as well as the nature and operation of existent institutional repositories.

Muteesa I Royal University hosts IRIC-ECRU centre.

Last but not least, the regular work of the project is supported by Mr. Dickson Tumuramye and Mr. Vincent Ssekitoleko as Project Manager and Project Accountant respectively.

















