

IITA RWANDA COMPETITIVE CALL FOR MSC THESIS RESEARCH FOR STUDENTS FROM THE UNIVERSITY OF RWANDA 2020-2021

Introduction:

IITA Rwanda organises a **competitive call for MSc thesis research students** from the **University of Rwanda** to conduct their MSc thesis research under IITA Rwanda research for development projects. As we have only limited amount of space and capacity, students will be selected using a **competitive process** through which students submit their proposals.

Shortlisted students will be pitching their proposal to a panel of IITA researchers after which 1 or 2 students will be selected for the present opportunity. Student projects will have a budget of **\$2500**, which includes stipend and research costs.

Terms and conditions:

The terms and conditions that apply to the competitive call are as follows:

- The call is open for students who are already enrolled in an University of Rwanda MSc program;
- This is not a full scholarship grant. The grant supports MSc-thesis research projects of max 6 months;
- Students can only put 1 application per person;
- Students apply for an individual project (group applications are not allowed);
- Applications must be online using the Google Forms website (applications through email will not be considered). The Google Form can be accessed here: <https://forms.gle/ACTr6Rkmg5XQQu2y5>.
- Students will identify a university supervisor who has agreed on student supervision;
- Students can only commence their research with an approved research proposal by their university supervisor;
- Students receive a **fixed stipend of \$300 per month**, for a max period of 6 months;
- Students have access to **~\$700 research budget** (approx. \$120 per month); Research budget needs to be agreed with the IITA supervisor and needs to be accounted for;
- Students have access to IITA Rwanda office facilities (desk, internet), but agree to use their own laptop or PC;
- Applications must be in English.

- Students agree to comply with general IITA research and student policies.

Important dates and deadlines:

Activity	Deadline
Students develop their research idea/ proposal and submit through Google Forms	30 September 2020 – strict deadline
IITA scientists analyse and shortlist research proposals	Shortlisted candidates are contacted before 15 October 2020
Shortlisted research proposal pitched to IITA scientists	30 October 2020
Research project implementation	October 2020 - June 2021

For general questions, please contact Mrs Speciose Kantengwa (S.Kantengwa@cgiar.org).

Topics:

Applicants respond to 1 of the below 3 Topics, with possibility of accepting a new topic once deemed relevant to the project by the project scientists. The Topics correspond with the research topics that should be selected on the Google Form. If an applicant chooses to apply with a new topic, they should choose ‘Other’ on the Google form.

TOPIC 1

CASS: Farmers’ demand and willingness to pay for cassava seed

<p>Project context</p>	<p>The Cassava Agribusiness Seeds System (CASS) project is a consortium effort between IITA, Rwanda Agriculture and Animal Resource Development Board (RAB), SPARK, and Wageningen University and Research (WUR), with the main objective of developing a commercially viable cassava seed system in Rwanda. CASS is a three-year project, which started operations in April 2019. The aim of the project is to test, evaluate and upscale end-user-preferred cassava varieties with strong resistance to Cassava Brown Streak Disease (CBSD) and Cassava Mosaic Diseases (CMD) through different types of agribusiness seed system models. The project is funded by the Dutch Research Council (NWO) under its collaboration with the CGIAR’s RTB (Roots, Tubers, and Banana) program.</p>
<p>Background on the research topic</p>	<p>Cassava is a very important staple food in Rwanda. However, unlike crops like maize, its production practices have remained mostly traditional especially around farmers’ seed acquisition strategies. The majority of farmers continue to use ‘farm-saved’ seed and to practice farmer-to-farmer seed exchange. These practices, with the presence of viral diseases such as CBSD and CMD, have proved to be detrimental to production and quality of cassava roots. Various initiatives, mostly donor-funded, have been undertaken by different stakeholders to curb the spread of these viral diseases including breeding and introduction of resistant varieties as well as virus cleaning of local varieties. However, it is assumed that these efforts can only be impactful if the seed system becomes market-driven, thus sustainable. This requires that farmers regularly buy seed from seed entrepreneurs (or seed producers) that meets certain quality standards. From the traditional experience though, many stakeholders doubt whether farmers can buy cassava seed and if yes, how much they will be willing to pay. Moreover, this information is very important for seed entrepreneurs as well as developmental partners and policy makers to guide strategies.</p>

Objectives	(1) Shed light on farmers' demand for cassava planting material
	(2) Determine if farmers are willing to pay a premium price for high quality/quality assured cassava planting material (3) Determine the key drivers behind the use/non-use of high quality/quality assured seed
Guiding research questions	(1) How can farmers' demand for cassava seed be estimated? (2) What factors influence the demand for different types of cassava seed? (3) What are the key factors and product features that drive farmers' willingness to pay for cassava seed?
Location	Rwanda
Starting date	October 2020
Student background and experiences	<ul style="list-style-type: none"> • The student needs to have a background in agricultural sciences or economics and business, preferably in agribusiness/agricultural economics with strong interest for multi- and interdisciplinary research. • We are looking for highly motivated MSc-students who will have finalized their coursework by the time of starting their thesis research. Applicants should meet the following criteria for success: <ul style="list-style-type: none"> ○ An interest in willingness to pay studies and related methods, agri-business, agricultural economics, and agricultural development in general. ○ Willingness to conduct fieldwork with farmers and other actors in rural areas. ○ Ability to be pro-active, flexible, and independent. ○ Motivated to work in an interdisciplinary and intercultural environment. ○ Eagerness to learn new skills and take on challenges ○ Enthusiasm for developing, testing, and using different research approaches. ○ High level of written and oral English language skills.
Recommended reading (open access)	□ Almekinders, C. J., Walsh, S., Jacobsen, K. S., Andrade-Piedra, J. L., McEwan, M. A., de Haan, S., ... & Staver, C. (2019). Why interventions in the seed systems of roots, tubers and bananas crops do not reach their full potential. <i>Food Security</i> , 11(1), 23-42.
Contact person	□ Dr Silver Tumwegamire (S.tumwegamire@cgiar.org)

TOPIC 2

CASS: Cost-benefit analysis of basic and certified seed production

<p>Project context</p>	<p>The Cassava Agribusiness Seeds System (CASS) project is a consortium effort between IITA, Rwanda Agriculture and Animal Resource Development Board (RAB), SPARK, and Wageningen University and Research (WUR), with the main objective of developing a commercially viable cassava seed system in Rwanda. CASS is a three-year project, which started operations in April 2019. The aim of the project is to test, evaluate and upscale end-user-preferred cassava varieties with strong resistance to Cassava Brown Streak Disease (CBSD) and Cassava Mosaic Diseases (CMD) through different types of agribusiness seed systems models. The project is funded by the Dutch Research Council (NWO) under its collaboration with the CGIAR’s RTB (Roots, Tubers, and Banana) program.</p>
<p>Background on the research topic</p>	<p>Cassava is a very important staple food in Rwanda. However, unlike crops like maize, its production practices have remained mostly traditional especially around farmers’ seed acquisition strategies. Majority farmers continue to use ‘farm-saved’ seed and practice farmer-to-farmer seed exchanges. These practices, with the presence of viral diseases such as CBSD and CMD, have proved to be detrimental to production and quality of cassava roots. Various initiatives have been working with different stakeholders – public, private, developmental - to fight the spread of these diseases through promotion of use of clean seeds amongst other efforts. Individual farmers and farmer cooperatives who multiply cassava seed, often referred to as seed entrepreneurs, are a key group in this endeavour. However, commercial cassava seed production being a relatively new business activity, seed entrepreneurs themselves and other stakeholders do not properly understand the costs involved at each stage of seed production and the potential return on investment or benefits. The lack of this information limits potential entrepreneurs from investing in the business as well as the capacity and effectiveness of development partners to advise private actors in general.</p>
<p>Objectives</p>	<ol style="list-style-type: none"> (1) Produce information such as inventory of costs involved in seed production at different stages (2) Determine the production cost for both basic and certified seed at the seed multiplier level

	(3) Perform the cost-benefit analysis and provide guidance for potential investors
Guiding research questions	<p>(1) What are the key operations and costs involved at each stage of cassava seed production?</p> <p>(2) What is the unit production cost for basic and certified seed?</p> <p>(3) What is the potential return on investment for basic and certified seed production?</p>
Location	Rwanda
Starting date	October 2020
Student background and experiences	<ul style="list-style-type: none"> • The student needs to have a background in agricultural sciences or economics and business, preferably in agribusiness or agricultural economics with strong interests for multi- and interdisciplinary research. • We are looking for highly motivated MSc-students who will have finalized their coursework by the time of starting their thesis research. Applicants should meet the following criteria for success: <ul style="list-style-type: none"> ○ An interest in cost-benefit analysis and related methods, agri-business, agricultural economics, and agricultural development in general. ○ Willingness to conduct fieldwork with farmers and other actors in rural areas. ○ Ability to be pro-active, flexible, and independent. ○ Motivated to work in an interdisciplinary and intercultural environment. ○ Eagerness to learn new skills and take on challenges ○ Enthusiasm for developing, testing, and using different research approaches. ○ High level of written and oral English language skills.
Recommended reading (open access)	<ul style="list-style-type: none"> • Bentley, J. W., Nitturkar, H., Obisesan, D., Friedmann, M., & Thiele, G. (2020). Is there a space for medium-sized cassava seed growers in Nigeria? <i>Journal of Crop Improvement</i>, 1-16. • MEDA (2016) Business Case for Private Cassava Seed Multiplication. Commercially sustainable, Quality-assured, Cassava Seed Distribution System in Tanzania: Pilot Innovation Project
Contact person	□ Dr Silver Tumwegamire (S.tumwegamire@cgiar.org)

TOPIC 3

CASS: Institutional constraints and potential solutions for an improved cassava seed system in Rwanda

<p>Project context</p>	<p>The Cassava Agribusiness Seeds System (CASS) project is a consortium effort between IITA, Rwanda Agriculture and Animal Resource Development Board (RAB), SPARK, and Wageningen University and Research (WUR), with the main objective of developing a commercially viable cassava seed system in Rwanda. CASS is a three-year project, which started operations in April 2019. The aim of the project is to test, evaluate and upscale end-user-preferred cassava varieties with strong resistance to Cassava Brown Streak Disease (CBSD) and Cassava Mosaic Diseases (CMD) through different types of agribusiness seed systems models. The project is funded by the Dutch Research Council (NWO) under its collaboration with the CGIAR’s RTB (Roots, Tubers, and Banana) program.</p>
<p>Background on the research topic</p>	<p>Cassava is a very important staple food in Rwanda. However, unlike crops like maize, its production practices have remained mostly traditional especially around farmers’ seed acquisition strategies. Majority farmers continue to use ‘farm-saved’ seed and practice farmer-to-farmer seed exchanges. These practices, with the presence of viral diseases such as CBSD and CMD, have proved to be detrimental to production and quality of cassava roots. The reason why farmers continue to use informal seed systems despite the presence of diseases are many and varied ranging from limited knowledge and awareness about the benefits of using clean seed, availability of clean seed, issues surrounding marketing and distribution of clean seed, pricing, information flow, and value chain coordination among others. While some of these challenges are at farmer’s level, more are at institutional level. It would therefore be useful to shed some light on these issues especially at the institutional level.</p>
<p>Objectives</p>	<ol style="list-style-type: none"> (1) Identify the role of different institutions in the cassava seed system and their relations. (2) Identify the key institutional challenges to a sustainable cassava seed system. (3) Propose solutions to the identified challenges

Guiding research questions	<p>(1) What are the roles of different institutional stakeholders?</p> <p>(2) What are the most pertinent constraints to a sustainable cassava seed system?</p> <p>(3) What can be done at institutional level to enable a sustainable cassava seed system?</p>
Location	Rwanda
Starting date	October 2020
Student background and experiences	<ul style="list-style-type: none"> • The student needs to have a background in agricultural sciences or economics and business, preferably in agribusiness or agricultural economics with strong interest for multi- and interdisciplinary research. • We are looking for highly motivated MSc-students who will have finalized their coursework by the time of starting their thesis research. Applicants should meet the following criteria for success: <ul style="list-style-type: none"> ○ An interest in agricultural policy, public policy, agri-business, agricultural economics, agricultural and rural development in general. ○ Willingness to conduct fieldwork with farmers and other actors in rural areas. ○ Ability to be pro-active, flexible, and independent. ○ Motivated to work in an interdisciplinary and intercultural environment. ○ Eagerness to learn new skills and take on challenges ○ Enthusiasm for developing, testing, and using different research approaches. ○ High level of written and oral English language skills.
Recommended reading (open access)	<p>□ Bentley, J. W., Andrade-Piedra, J., Demo, P., Dzomeku, B., Jacobsen, K., Kikulwe, E., ... & Ogero, K. (2018). Understanding root, tuber, and banana seed systems and coordination breakdown: a multi-stakeholder framework. <i>Journal of Crop Improvement</i>, 32(5), 599-621.</p>
Contact person	<p>□ Dr Silver Tumwegamire (S.tumwegamire@cgiar.org)</p>

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