Documenting lessons from a three-week orientation for the first cohort of the MCF@RUFORUM students held at ARC Hotel Egerton University



### Introduction

The social group that is often said to be more open to entrepreneurship, young people, is suffering from critical skills gap, high unemployment rates and lower-than-average rates of entrepreneurial careers. This added to the exponential human population growth in Africa, has raised more concerns about the economic growth and development of the continent. It has now become a necessity to engage development partners in a dialogue of sustainable development goals to trigger more opportunities for youth training and skills enhancement, thereby contributing to implementation of the African Union agenda 2063.

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), a member-based consortium of 66 Universities in 26 countries in Africa, is implementing, in partnership with MasterCard Foundation, Gulu University in Uganda, and Egerton University in Kenya, an eight-year program with overall goal to strengthen the capacity of

African agricultural universities and their graduates to meaningfully contribute to accelerated growth and transformation of agriculture and the development of sustainable livelihoods in Africa. The program is being implemented through four interlinked objectives systematically taking lessons from implementation at the two early adopter institutions to widen implementation and impact across the continent, through the extensive and engaging RUFORUM network: 1) Pilot a new model of agricultural education at early adopter universities that connects tertiary agricultural education to rural with an emphasis on smallholder 2) communities, farmers: Strengthen agribusiness/entrepreneurship at two universities and selected TVET (Technical and Vocational Education Training) institutions; 3) Scale the new model for agricultural education to other agricultural universities and TVET institutions; and, 4) Increase collaboration and mutual learning among institutions and agencies implementing and influencing innovative Tertiary Agricultural Education for rural transformation in Africa.

A core activity for the implementation of this program is the recruitment and training of 220 (110 masters and 110 under graduates) economically disadvantaged but academically talented students. These students will undertake their academic training in Agriculture, Agri-enterprise and Development, and related fields. The recruitment of these students is being done through 05 cohorts. For first cohort, a total of 30 students have been selected to undertake training at the undergraduate and postgraduate level at Gulu University and Egerton University.

From the initial proposed project, it was also compulsory that selected students converge at Egerton University for a three weeks orientation. The purpose of this orientation training is to provide students with opportunity to: i) get abreast with the objectives, goals and intent of the TAGDev project, ii) exploring the opportunities and scope of their potential, iii) lay the ground rules of engagement during the course of their studies, iv) open the students world views and horizons to the new realities of a competitive global economy and market place, v) provide students with opportunity to know each and develop common goals and personal standards. The orientation training is built around a package of skills development packages inclined to making the students understand the set of work ahead of their education path and career path upon completion. These packages include: i) Transformative leadership for rural transformation, ii) Agricultural value chains,

entrepreneurship and Business Start-up Tool (BEST), iii) Discovering your talent for entrepreneurship and enterprise development; iv) Creativity, personal mastery, leadership and capacities beyond the horizon, v) Rural transformation, vi) research approaches and applications for rural transformation.

### 1. Student Arrival and Departure for Egerton University

All the necessary logistics (transportation and accommodation) for hosting the 30 students (13 Ugandans, 10 Kenyans and 7 internationals) were arranged for in Egerton University by the RUFORUM staff, the TAGDev implementing Units at Egerton and Gulu University. For the purpose of adequate planning and preparation, Ugandan selected students were welcome on 6th July 2017 at the RUFORUM secretariat, and briefed on the goals and objectives targeted for the orientation training. These students were also given necessary academic travel documents (hard copies of the flight ticket, award letters, and invitation letters from Egerton University). Necessary logistics and accommodation were arranged prior to their arrival. Thirteen (13) students departed from Makerere University Guest house for Egerton University on 7th July 2017 in order to have necessary time and prepare for the three week training. All the thirty students arrived at Egerton University on the 7th July where they were hosted in Riverside student hostels. Fifteen continuing students from Egerton University, who had been invited, joined the MCF@RUFORUM Students to guide and mentor them.

### 2. Activities during the orientation training

For easier implementation of the activities, a full programme was drafted (Supplementary Information 1). A number of facilitators were engaged in the three weeks orientation of the students: AWARD (African Women in Agricultural Research and Development), the Royal Voice, Enterprise Uganda, and three other individual professionals. These facilitators were engaged based on service-contract agreement of the objectives and the key deliverables of the training sessions.

## 2.1. First week: Opening ceremony and AWARD training

The first week of the orientation covered the opening ceremony and the training by the AWARD team.

### 2.1.1. Opening ceremony

The opening ceremony was held on 10th July 2017 and facilitated by the Egerton University TAGDev Program Coordinator program. The ceremony started with a word of prayer and recognition of all officials including the Executive Secretariat, the Vice Chancellors of the two Universities, the Provost of EARTH University and the program coordinators and officers. After numerous remarks by the officials (extensive delivery of first day program, brief overview of the overall program, overview of the TAGDev goals and objectives, efficient use of time, the nine countries participating), students were asked to introduce themselves, the programs they are undertaking and their expectations. Few additional individual remarks from the guests were observed. In particular, the TAGDev program coordinator at Gulu pointed out the need to work together to realize the transformation agenda by transforming the model of education at the university, empowering smallholder farmers, emphasizing the development of micro-enterprises. The regional coordinator of the program recalled few important key points such as transformation of agriculture of smallholders with available technologies, efficient utilization of universities and students to transform agriculture, harnessing the potential of youth to contribute to community development. The Executive Secretariat of RUFORUM gave a motivating remark on the role of students and program coordinators in contributing to Africa transformation. He also gave an overall historical background of the project, especially from the ideas borrowed from the model at EARTH University, the visits of the two implementing universities by RUFORUM and MCF delegates, and the subsequent desire and willingness to experiment the ideas.

The TAGDEv goals and objectives were presented in details by the regional coordinator of the project, who also took the opportunity to introduce the management structure, the major components of TAGDev, and stressed on the key components of the orientation training. A presentation on student' benefits and means of communication with the students to help track the learning and training, was given by the training officer. Specific details were provided on the learning components such as the field attachment, community

engagement, and business enterprise. Students were also briefed on their roles and responsibilities at the universities by the assistant program coordinator at Egerton University. Finally, a presentation was given by a continuing student on the current approach to agribusiness training with emphasis on components such as practical training, farming as a business, innovative entrepreneurship, field attachments, agribusiness clinics, and round table discussion with industry players. A parallel consultative session was held by RUFORUM to engage the TVET sectors and the deans of faculty to elaborate more on the TVET perspectives in a context of bigger RUFORUM vision.

### 2.2.2. AWARD training on transformational leadership

Following an excellent opening ceremony punctuated by warm welcome remarks, powerful speeches, student commitment and expression of gratitude, the pace was set and the opportunity was given to the AWARD team to train the students on transformational leadership. The training was facilitated by the four professionals for four days.

The first day of the training (11th July 2017) was marked by general learning about leadership and its foundations which include character, connection and competence. Students were trained on how to draw Purpose Road Map, defined as a development pathway that leads to an intended ultimate purpose on top of one's profession. They were further challenged on personal exercise whereby they were requested to develop their purpose road maps based on their purpose statements and to continue refining them time to time.

Students were also trained on how to develop a career development timeline, personality assessment, and strategies for career success. A career development timeline is a graphical representation of the variation of one's life-event scores with time. In this regard, students were challenged to identify their life events, rate them and state the reason over a period of five years (2013, 2014, 2015, 2016, 2017) from which they can develop their career development timelines.

From trainers' perspective, personality assessment was explained as a process by which one gets aware of who one is through identification of weaknesses and strengths, but also through working on the weakness to transform them into strengths. During the training, students were thus administered a personality assessment form to realize who they are.

The test contributed to reveal each one's strengths and weaknesses that need to be improved to be able to interact with other people both as leaders and subjects to leadership.

Strategies for career success are defined as strategic pathway through different levels to a desired opportune position. Students were given several tips for career success, including (1) defining direction to build a successful career (determination and creation of personal brand and setting of life goals); (2) optimizing one's outlook (demonstrating confidence, and belief in set goals); (3) taking the lead (take ownership and responsibility for actions; as pointed out by the trainers, this helps linking the efforts to the success while also learning from mistakes, thereby creating people confidence and reliance); (4) learning from everyone (cultivate the habit of paying attention to others to increase the abilities to see multiple perspectives and opportunities to develop support); (5) cultivating curiosity and wealth of facts and ideas on technology so as to become a lifelong learner); (6) disentangling the thoughts so as to make well thought-out decisions and solve problems effectively; (7) exceeding beyond expectations while prioritizing on time and urgent activities; (8) thriving in uncertainty; and (9) promoting the progress to benefit from assistance. The first day was closed with an assignment directed to the students to read a Havard Business Review book entitled "What leaders really do" by John P. Kotter

The second day of the training (12<sup>th</sup> July 2017) begun with a recap of what students learnt on the first day. Several leadership components were discussed with the students, which included interpersonal skills (communication, listening and feedback), networking, and management and leadership functions.

Effective **communication** is key and important in leadership and management. As pointed out by the facilitators, an entrepreneur needs good verbal and non-verbal skills to help facilitate the sharing of information between people within a company for commercial benefits. It is also highly important for a leader to develop communication skills to interact with others, resolve conflicts and convey information effectively and efficiently. Students also learned about facts, feelings and values explained as important during communication process, as they help develop understanding of one another.

The Award Team also enlightened the students on **networking** which is the process of communicating and linking together individuals with the goal of building synergy and

closer solid quality relationships, to accomplish much more than one can do alone. As explained by the team, networking brings some intended value an individual cannot achieve alone, helps on building relationships for professional support, leveraging resources, inspirations, enhancing capacity, joining with likeminded professionals as well as accessing information. The students were requested to list their four networks and carefully position them into four quadrants with respect to their levels of effort and value. They further learnt about the diversity of an effective network.

The discussions on **Management and leadership functions** were based on the article shared by the facilitators and read by the students. The students contributed what they learnt from the article. Essentially, leadership is about creating influence, establishing directions, motivation and inspiration; it is needed to direct people to the vision, motivate and inspire people to achieve the desired goal. Management functions on the other hand involves planning and budgeting, organizing and staffing, controlling and problem-solving. However, as a key message from the session, both functions are interrelated, relevant and needed in organizations for increased performance and efficiency.

On the third day of the AWARD training (13<sup>th</sup> July 2017), students were trained on how to position themselves as leaders in science with particular focus on (1) ethical issues in science (integrity, honesty, social responsibilities and confidentiality and bad practices plagiarism and fraud); (2) online presence (optimum usage of emails, social network, understanding the concept of spamming, maintenance of professionalism, usage of correct grammar, good tone, timely acknowledgement of email receipt); (3) profiling and presenting oneself as a scientist using curriculum vitae, résumé, short biography, presentation with adequate audience knowledge, sufficient preparation, clear speech, enthusiasm, adequate and great power point slide design; some examples of good slides and poster presentation were shown by the facilitators; (4) emotional intelligence (involving the ability to monitor one's emotions and those of others) was another point of discussion, which has five components: self- awareness, self- regulation, empathy, self-motivation and social skills. Emotional intelligence as described is key in using information to guide the thinking and actions taken.

Other points of discussion and of practice included (5) etiquette (issuance and receipt of business cards, formal greetings with a warm right hand shake and table etiquettes); (6)

research informing policy, relevant to mass problems and consistent with national priorities; (7) pitching (presenting one's idea in a compelling, convincing and straight manner, while ensuring relevance, and informing the audience about the solution to the problem).

The students were finally requested to refine their purpose road maps based on the learning, which would be shared the following day before sponsors and facilitators.

On the final day of the AWARD training (14th July 2017), issues such gender responsiveness, gender inequality and culture were discussed. Students learnt about the need to deal with systemic causes of imbalance rather than supporting one gender at the expense of the other. Further discussions were on excellent community facilitation trips including guidance (not ordering) community discussions, attention to protocol, great preparation, active engagement, mitigation against bias. An official closing ceremony marked the end of the AWARD Team training where the students were asked to present their purpose statement in front of the invited guests (TAGDev implementing committees, RUFORUM and AWARD team). It was also an opportunity for RUFORUM and other stakeholders to thank AWARD team for the active and engaging sessions they offered to the students, and for the students to express their gratitude for the learning package. As testimonies from the students, the box below summarized few messages and thoughts from the students regarding the training by AWARD team.

### **Box 1. Testimonies from students**

- 1. "The Award team had a great influence on us on the training to enable us achieve agricultural transformation in Africa. We also acquired numerous skills on positioning ourselves successfully as leaders, researchers and scientists and also how to present our ideas in a convincing way (pitching)"
- 2. "For us to make an impact in our community, we have to identify our purpose in life and hence develop a purpose statement that clearly spells out what really want to achieve"
- 3. "We learnt how to effectively present our purpose statement to the potential funders which is known as pitching"
- 4. "We also learnt the difference between hearing and deep listening. The latter entails using all the five senses hence enabling one to understand someone's feelings, facts and values while the former is just a function of the ear"
- 5. "We learnt that networking involves linking together people to build synergy with a purpose of accomplishing much more than an individual would. Furthermore, we learnt about building connections through creating diverse networks by adding people from different industries, backgrounds, age groups and ethnicity."















# 2.2. <u>Second week: Training on Communication skills, Talents discovery, Agricultural Values Chains, and Rural transformations</u>

Unlike the first week of the orientation, the second week was enriched by a diversified training sessions on communication skills, talents discovery, agricultural value chains and entrepreneurial mindset. In addition, two extra-class activities were undertaken, which included a presentation by Operations Manager of a Njoro Canning Factory, and an experiential field visit to Maina's farm.

### 2.2.1. Training on Communication skills (17th July 2017)

The training on communication skills was facilitated by Ms. Joan Apio from the RUFORUM secretariat. After necessary welcoming remarks and introduction, students were requested to Google search their names and state the outcomes. They were thereafter introduced to various social media platforms such as Facebook, Twitter, YouTube, Snapchat and Blogging. Twitter helps not only to be aware of what is happening all around the world and but also to share ideas on how to do things. Students thus had detailed discussion on Twitter as well as the features of good tweet with efficient usage of tweet body, link to the website and a photo, and a perfect hashtag. More practically, they were given the opportunity to sign up on Tweeter and guided through one by one steps of sending direct messages and tweets. There was also a brief discussion about Facebook focusing on differences between Facebook and Twitter. At the end of the session, majority if not all the students were able to tweet and retweet their training experiences on #TAGDEV.

## 2.2.2. Training on Talents discovery (18th July 2017)

The training session, facilitated by Johnson Mwakazi and Maxwell from the Royal Voice of Kenya, started with students' introduction, and focused on major points which were talent discovery, entrepreneurship and technology and innovation opportunities. Diversified training and engaging approaches were employed by the trainer, which consisted of active student engagement, group work and interaction, field team activities and video clips.

In terms of talent discovery, students were also trained about building business portfolio focused upon identity, network and exposure. They also had a group work whereby three unique characteristics of three most prosperous countries and three most successful people were discussed. As outcomes, discussions were held on countries such as Germany, Norway, US, Singapore and China, and individuals such as Jack Ma, Aliko Dankote, Warren Buffet, Steve Jobs, Mark Zuckerberg and Bill Gates.

Further key lessons on entrepreneurship and technology and innovation opportunities were given to the students; an entrepreneur was defined as one that starts and runs a business seen as a journey governed by three major pillars: Now, Cents and Why; as pointed out by the trainer, the "Why" is the incentive that keeps one moving, the purpose in life. Students were therefore requested to identify their "big why" and were tasked to identify three transformative activities they could engage in. It was also pointed out that a lot of time needs to be invested in developing identity, exposure and network in order to reach maximum possible career performance. A final key message to the students to penetrate through the entrepreneurship journey was to disrupt the technology.

# 2.2.3Training on Rural transformations and Innovations (Morning Session-19th July 2017)

Dr Justus Ombati was the facilitator for the training on rural transformation and innovations. The students discussed rural transformation as being "a long-term, multidimensional process of change to core features of economies and livelihoods of rural people, taking into account their exposure to global dynamics and society as a whole". The trainer used interactive and engaging training approaches to facilitate student active participation through brainstorming and group discussion. Students particularly brainstormed on the reasons why transformation is more urgent now than ever before; several points of discussion were raised, including globalization, climate change, technological advancement, deteriorated health system, high levels of wastage, high illiteracy levels, need to combat rural-urban migration, loss of soil fertility and persistently low economic growth rates. Students also brainstormed on why Africa has lagged behind, and thus discussed about historical legacies, inequality of resources access, political disenfranchisement, urban biased elite population, weak and poorly implemented policies.

Students further had group discussion on factors that led to the underperformance of agriculture sector in the African continent, which were the general bias against agriculture especially among the literate population, demographic disorientation, poor market structure, poor leadership and policy implementation, low levels of research, weather vagaries, land ownership policies, high post-harvest loss levels and international research not focusing on African staple foods.

In terms of rural innovations, students discussed the basics of science, knowledge, technology and innovation; it was also an opportunity to undertake discussion about agricultural innovation platforms, the stimulants of modern innovations, and the category of stakeholders (farmers, rural populations, private sector and public sector). The students learnt about the benefits of innovation platforms, promotion of dialogue and understanding among stakeholders, creation of innovation, solution ownership, road to better informed decisions, impact enhancement, and facilitation of upward communication and identification of hindrances to innovation. They further discussed community action research, as approach to research that brings together researchers and community members focused on social change, and as alternative to the researcher- centered quantitative research. Finally, they discussed the spiral model of the community action research, plan- Act- Observe- Reflect and the methods used during community action research, including surveys, observation, interviews, research skills, photo voice and community meetings.

# 2.2.4 Presentation by Operations Manager of a Njoro Canning Factory (Afternoon Session- 19th July 2017)

Njoro Canning Factory (NCF) is a canning factory with a vision of the factory being "To be a global leader in food manufacturing". NCF is well known for its quality canned products, sauces and dehydrated vegetables under three (3) major brands- Golden valley, Kenya Orchard Ltd (KOL) and Mau hills products. Their wide range products (notably mixed vegetables, tomatoes paste, processed peas, processed tomatoes, peeled tomatoes, sweet corns and orange marmalade) are consumed locally in Kenya, in East Africa and globally (with 15% market being a highly lucrative European market). The students got a comprehensive overview of the Njoro Canning Factory activities; they discussed the factors

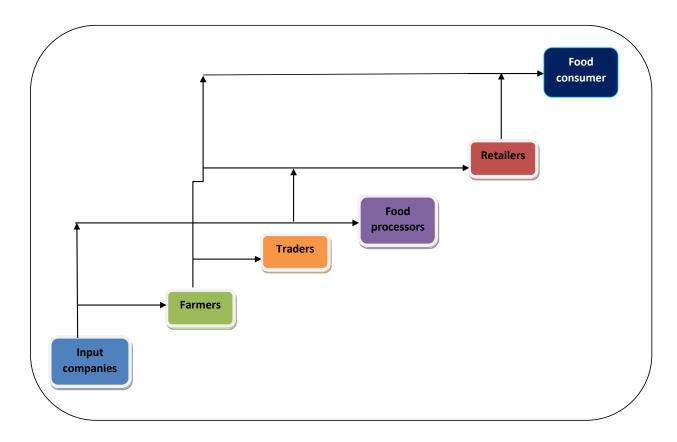
that have led to a continued development of the factory, including (1) the presence of a host of contracted farmers monitored; (2) the very low competition for raw materials; (3) diversity of both product and market; (4) meticulous compliance with statutory requirements; (5) adequate technology and innovation in the value addition processes; (6) great organization with several departments.

The students were encouraged to learn from the above strengths and consider them when setting Agri-enterprises. They also discussed a few of the challenges faced by the factory including market competition, poor transport challenges especially for raw materials from the coast and climate change which results in variations in raw materials quality and quantity. Students were allowed to ask questions, most of which rotated around the future plans and partnership with NCF.

## 2.2.5 Training on Agricultural Value Chains (20th July 2017)

The training session on agricultural value chain was facilitated by Mr Tom Wambua of Egerton University, for a day. Main points of discussion were challenges in Africa, leadership in agriculture, agricultural value chain and its drivers. As underlined, Africa is facing a lot of challenges in value chains performance, for example limited coordination, insufficient utilization of inputs, poor organized post harvest aggregations and insufficient infrastructure among others. Value chain was referred by the trainer to as the full range of value-adding activities required to bring a product or service through the different phases to ultimately respond to consumer demand (See Figure below). These phases include procurement of raw materials and other inputs, assembling, physical transformation.

### Value chain framework



Different players in the chain play different roles however, in all the chains there is always the producer and the consumer. Other players in the chain include; policy makers, regulators, specialized facilitators and middlemen. Agricultural value chains are dynamic in the sense that they vary from one product to the other and the needs of the consumer. Drivers of agricultural value chains include:

- Population growth, demographic structure and economic development
- Globalization; Change in lifestyle, health and safety awareness
- Information and other technologies
- Weather variation
- Government policies.

# 2.2.6 Experiential field visit to Maina's farm (Afternoon Session- 20th July 2017)

Mr. Bernard Maina is a successful local farmer in Njoro region, which is characterized by erratic rains. The students had the opportunity to visit his farm spanning up to 15 acres on land. Currently his enterprises include both crop and livestock husbandry. The crops

produced include tomatoes, sweet corn, beans and pasture while the animals include sheep, cattle and chicken. The farmer supplies sweet corn and beans to Njoro canning factory. As input, he uses run-off water for irrigation by digging water channels into the farm. Along with the water comes the top soil (humus), very rich in nutrients that boost soil fertility. He also makes use of compost to supplement fertilizer on the crops. Besides these, there were more additional lessons for the students, particularly (1) the ability and the innovation to carry out farming during the dry spells using water harvesting skills such as underground water reservoirs and ground running water harvesting technologies; (2) possibility to build from limited available land and envision continual growth in future; (3) minimizing of waste through the usage of animal dung for preparing organic manure which boosts crops in the field; (4) financial transparency with the family which enables the whole family to engage in the fieldwork; and (5) the need for insurance services to effectively reduce the effect of risks and uncertainties.

## 1.1.1. Experiential field visit to Thika farm

The students had the privilege to visit a Thamuru farm, located in Thika-Kiambu County in the Central region of Kenya. The multi-enterprise farm situated on 16 acres of land, started in 2009 with a purpose of providing food to the Riara Group of schools, act as a farm model in the community and provide employment to the neighboring farming community. It is integrated system of crops production, livestock (dairy cows, sheep and rabbits) production, poultry (chicken and geese), fish ponds and composting.

The following are the important lessons learnt at the farm: (1) ability to set-up and manage diversified farm- the different enterprise are interdependent whereby the livestock and poultry wastes are used as feeds for fish and built up into crop manures; this greatly reduces wastage on the farm, ensuring efficient resource utilization; (2) the dairy animals provide milk which is supplied to the schools as pasteurized milk as well as yoghurt; this underscored the concept of value-addition on the farm. The high production of the dairy cows is appreciated (up to 35 litres of milk per day per animal); (3) the farm uses compost manure prepared from livestock and poultry waste which boosts crops life hence high productivity; (4) the cows are fed on highly nutritious silage and well-taken

care of; this ensures high production; (5) the cow dung is used for fuel generation in the form of biogas which is a source of fuel in the farm; (6) the farm has a well-established water sources; a borehole and overhead water reservoirs which ensure water supply throughout the year; the water is re-collected in the farm and re-used; (7) high value crops like carrots, broccoli, Chinese cabbage, tomatoes, lettuce and spinach are grown on relatively small pieces of land yet highly productive due to maximum utilization of good agricultural practices and integrated pest management; (8) Drip irrigation technology is used on the farm ensuring steady supply of water to the crops always. This ensures continuous production; (9) fish ponds wherein mudfish, lungfish, tilapia and ornamental fish are kept. The farm has well established hatchery where numerous fingerlings are raised and attracts many farmers who come to learn about fish farming at a cost of 500 per head. Thus the fish section is a source of income to the farm and allows for efficient use of farm waste such as rabbit droppings; (10) the farm has about 30 properly trained and workers for different enterprises, who are able to keep good farm records ensuring continuous farm development. This results in greater efficiency and ultimately higher output; (11) the farm is well secured having an extensive fence, security dogs and grand Cavendish geese. From the above, the farm is serving the purposes for which it was started and it is a story worth telling and learning from to the students.





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# 1.2. <u>Third week: Training on Entrepreneurial mindsets and Research and scholarship</u>

The third and last week of the student orientation was marked by a training on entrepreneurial mindset by Enterprise Uganda and on research and scholarship by Dr Owuoche.

# 1.2.1. Training on Entrepreneurial mindsets and business start up

The training was provided for three working days from Friday 20<sup>th</sup> July to Tuesday 24<sup>th</sup> July 2017 by Enterprise Uganda. The facilitators used a participatory approach where students were engaged in group activities and presentations.

The session started with a paper cup making activity whereby the students were given instructions on how to make a cup but no one was successful on first trial. On second trial where demonstration was done, only 20% of the student made it successfully and finally on the third trial where the students were engaged one by one while giving instructions and all the students' successfully made the cup. This was complemented by a saying; "what I hear, I forget, what I see I remember, what I do I learn".

The students first learnt about entrepreneurship defined as a process of designing and implementing commercial venture. As explained, it involves starting small and minimizing risks while maximizing profit, although various mental barriers exist: attitude and mindset, purpose of education, stigma and public opinions about a business, excuse such as lack of capital, indifference, indecision, doubt about themselves and fear of failure. Consequently, it is useful to tackle these barriers.

The next discussions rotate around entrepreneurial mindset, which was defined as a belief one has about their abilities to undertake in the entrepreneurship. As highlighted, entrepreneurs should have (1) a developing mindset as opposed to fixed mindset, (2) persistence mindset as opposed to acceptance. To adopt an entrepreneurial mindset, one has to self-evaluate, identify the personal behavior and act appropriately.

Students further learnt about the importance of goal setting in business. Goal setting was explained as the ability to know where one is going and being able to identify one's destiny. As example, a good entrepreneur should be able to set clear goals and plan for the

business before starting, as goal setting would help to act efficiently to look for more information, seek opportunities, calculate risks, to persuade and build networks, and fulfil commitment. Goals propel business forward as they are guidelines to what the business seeks to achieve. As results, a good entrepreneur should always think outside the box and not having fixed mind. More particularly, where others see obstacles a good entrepreneur should see opportunity.

The students were also trained on identification of business opportunities. Business opportunity was defined as an idea that has commercial potential. The opportunity can be new or you can improve on the existing needs or service delivery. For an entrepreneur to increase his or her survival chances, they must deliberately and systematically generate the business idea, and for the business to thrive an entrepreneur must strike a balance between the needs of others, their passions and the money generated. As consequence, one has to brainstorm on the problems or unfulfilled needs, brainstorm onto identifying solutions, asses solution based on their passion, talents, visions, knowledge and skills, research on the idea, planning and eventually initiate the business(Act).

Most businesses require financial resources. Another point of discussion was on sources of capital such as: Equity owners/ partner's contribution, reinvested profits, grants, supplier's credit, customer's advance payment, disposal of underutilized/ non-essential property and commercial credits or loans.

### 1.2.2. Training on Research and Scholarship (27th and 28th July 2017)

The training on research and scholarship was the last session of the orientation, which covered two days of interactive discussion with the students. The training was facilitated by Dr James Owuoche, with a goal of familiarizing the students with the need for Agricultural Research and Innovation that meet the manpower requirements of the developing countries. Specific focus should be put on identification of research problem, scientific research, methodology, academic writing, resume preparation and research output communication skills.

During the training, students discussed about research development and scientific writing; they learnt how to develop research based on four domains: (1) knowledge and intellect, where one should develop a research from an area with basic knowledge; (2)

personal effectiveness, where a researcher should portray high self-management, enthusiasm and integrity in their research; (3) research governance and organization where the facilitator highlighted that research work should not interfere with human health as well as environmental well-being; (4) engagement, influence and impact – researchers should work with all stakeholders involved in the study as a way of disseminating the information.

The students were also guided on how to write a research proposal systematically. There was specific insights into the fact that research objectives must be specific, measurable, attainable, realistic and time- bound (SMART). They were taken through how to write scientific papers with emphasis on letting the work be reviewed severally to correct error and improve quality. They were also trained on other methods for disseminating scientific finding: (1) newsletter awareness which aims at informing the target audience; (2) Project website; creates awareness, engages, informs and promotes the scientific findings; (3) press release; (4) program meetings which aims at engaging the target audience; (5) conference and presentation; helps engage the audience and promote the scientific findings; (6) online discussion lists; creates awareness, informs and engages the audience; (7) reports and other documents, plays the role of giving information to your members of panel.

There was also an interactive session on how to search journals from the internet. Specific advices were given to students in terms of research undertaking and timeline issues. For example, masters students were told not to wait until coursework is done to write their proposal but to begin as soon as possible for timely completion of their studies while the undergraduate were asked to take their projects seriously to lay basis for their postgraduate studies.

### 1.2.3. Closing ceremony

The closing ceremony for the three weeks orientation took place on Friday 28<sup>th</sup> July 2017 in the Afternoon, and was honored with attendance of TAGDEv committee of Egerton University, Deans of faculty, TAGDev coordinating unit at Egerton, TAGDev coordinating unit at Gulu and RUFORUM staff. It was a special occasion marked by (1) feedback from the student's representatives on the overall training package; (2) their commitment for their

studies in the respective universities; (3) further individual conclusive remarks and acknowledgement messages from the officials. Specific advices were provided to the students on how to efficiently use their time and the resources and to focus on their purpose road map. The guest of Honor challenged the students to try and make the African continent happy and food secure. The closing ceremony was also an occasion to award certificate of attendance to 45 students who constantly attended the training.







