



WORLD BANK GROUP



Ministry of Foreign Affairs of the Netherlands

STRENGTHENING HIGHER AGRICULTURAL EDUCATION FOR AGRI-FOOD SYSTEM TRANSFORMATION IN AFRICA



DEVELOPMENT PARTNER MEETING

12&13 JULY 2018, INTERCONTINENTAL HOTEL, NAIROBI, KENYA

Executive Summary

Background to the SHAEA Project

A recent study (ACBF, 2016) revealed that only 2% of Africa’s students study agriculture, a sector that contributes over 32% to GDP and over 80% of the workforce on average across the continent. By 2025, more than half of the job growth in Ethiopia, Uganda, Tanzania, Mozambique, Malawi, and Zambia will be in the agri-food sector, highlighting the opportunities and importance for action in the sector. At the same time, Africa continues to expend much needed resources to import food to meet a food gap. According to the African Development Bank, “Africa’s annual food import bill is now over US\$35 billion and estimated to rise to \$110 billion by 2025. This not only weakens African economies but decimates its agriculture and exports jobs from the continent”. The Strengthening Higher Agricultural Education for Agri-Food System Transformation in Africa (SHAEA) Project is a unique opportunity for Africans to jointly tackle agri-food system challenges on the continent. The regional initiative is being prepared for implementation in six African countries (Cameroon, Ghana, Ivory Coast, Kenya¹, Malawi and Mozambique) with an overall objective to strengthen linkages between selected African universities and regional agricultural sector needs for developing required human resources to accelerate agri-food systems transformation in Africa². The Project will achieve this through strengthening (i) agri-food related education and training enhanced with transdisciplinary approaches and applied research at selected African regional anchor universities; (ii) university linkages to the regional agricultural sector - its priorities, needs and stakeholders; and (iii) university partnerships with public and private entities related to agri-food both within and outside the region. The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)³ has been selected as Regional Facilitating Unit (RFU) for the Project.

Meeting objectives and approach

This meeting of key partners of the SHAEA Project was organized to explore potential for stronger collaboration in support of human capacity and high-level skills development for transforming agri-food systems in Africa. The specific objectives of the meeting were to:

1. Share partners’ experiences (what works, what does not work, and lessons) and future strategies in strengthening tertiary agricultural education in Africa;
2. Explore synergies in enhancing the relevance of higher education for agri-food system transformation in Africa using the new regional SHAEA investment Project and RUFORUM as platforms;
3. Dialogue on how best to ensure greater responsiveness of agricultural education to the agri-food system at national and regional levels, recognizing opportunities in advances in information, communication technologies and the future of agri-food systems in Africa; and,

¹ There is on-going internal discussion by the Government of Kenya on their participation on the SHAEA Project and final commitment is awaited.

² For more information on the SHAEA Project, please visit www.ruforum.org/SHAEA

³ RUFORUM is a network of 85 African agricultural universities in 36 African countries that aims to enhance the contribution of universities to meet national and regional development objectives in Africa. More information on RUFORUM can be accessed at www.ruforum.org

4. Consider how a broad alliance can be established that will support strengthening agricultural education in Africa and the World Bank SHAEA project.

The two-day meeting (See Program- Annex 1) hosted by the Government of Kenya, was organized by RUFORUM and the World Bank, with sponsorship from the Food & Business Knowledge Platform of the Dutch Ministry of Foreign Affairs, The Food and Agriculture Organization of the United Nations and the Government of Korea (Partnership facility to the World Bank). The meeting brought together over 60 participants including representatives of five of the six target countries (Cameroon, Ghana, Ivory Coast, Malawi and Mozambique), higher education and agriculture experts, and key development partners with an interest in tertiary agricultural education and strengthening high level skills for sustainable agri-food systems transformation in Africa. The private sector included– Bayer, Nestle, OCP, and Syngenta. The plenary discussion was guided by background presentations on the proposed SHAEA Project action areas and deliverables, RUFORUM’s Vision 2030 and the status and prospects for Africa’s agri-food sector. The meeting provided a conversation space for development partners to share their thoughts and experiences on what needs to be done. The meeting was facilitated by Prof. Aldo Stroebel, Executive Director for Strategic Partnerships Strategy at the National Research Foundation of South Africa.

Background and context and implications for SHAEA

Discussions following the context setting presentations noted important elements to address:

1. The need to have a set of focused investments in **quality** (e.g., *curriculum, resources*) for quick-win opportunities; immediate results, though likely small impact;
2. **Improve student mix** (including gender mix) and focus on **graduate career opportunities** to increase graduation rate over the medium-term; key dependency on the job market for graduates by developing entrepreneurial skills and acumen for self-employment;
3. **Technical education** has proved beneficial in all countries; however it is vital that the country governance system places sufficient priority on building effective extension, agribusiness growth and linkages with research;
4. **Post-graduate education** is imperative to build basic capacity or where research agenda is large and complex; impact dependent on labor market potential for graduates/retention and research system capacity;
5. Investments that strengthen **linkages between education, research and outreach** are high potential as they enable the system to use resources more efficiently; are long-term, particularly where systems require structural change;
6. **Governance investments** create core conditions for impact and sustainability; need to shift resources toward SHF impact areas and ensure structures/incentives for stability; long-term and require political will and accountability; and,
7. **Regional training networks** provide appropriately trained graduates to support agricultural innovation system; medium-term require some international donor funding to initiate

SHAEA and clarity for partnerships engagement:

Key design issues for which further clarity may be required were discussed in the form of key questions from stakeholders. The questions and answers are listed below:

- a) Can countries with many eligible universities have more than one **Anchor University**? A. *This is still being discussed. The concept was for one regional anchor university per country. However, depending on the funding 'envelope per country' there remains a possibility of a second or linked university in each country that would receive less funds and work with the RAU consortium. This is still being discussed.*
- b) The private sector is expected to demand for services from the anchor universities. How will this be articulated? How can the **private sector** contribute to this initiative? How is this role going to be initiated (where it is not in place) and strengthened (where it is in place) with the respective anchor universities? How are these going to be sustained? A. *the Private sector is being brought on board as partners and the university being provided with funds to innovatively learn from these partnerships. Sustainability must be built into the design of winning proposals. We are relying on universities to write a proposal and it is up to the universities to put in place mechanism that will foster sustainable mechanisms for engaging the private sector. Universities should build on existing lessons and ensure demand drive.*
- c) In the current program design there is no explicit articulation of how **gender inclusion** will be implemented. The Disbursement linked indicators (DLIs) may demand only for sex-disaggregation of numbers of students going through system but this is insufficient to measure **gender mainstreaming** in the project.
- d) Important to link with the other factors of **social change** and how these are going to be measured during implementation?
- e) How is the regional accreditation going to be handled? – The Africa Centers of Excellence (ACE) projects struggled with finding regional accreditation bodies. A. *A number of the ACE projects now have experience with this and have been successful. This Project will learn from them and be facilitated by the RFU and the World Bank to achieve accreditation. This is a requirement for the Project.*
- f) We need to have a learning process embedded within the implementation framework;
- g) Need to articulate the processes for supporting universities to prepare competitive proposals that will ensure objectives of the Project are met;
- h) The global conversation is now on digital economy and the light manufacturing space which is rapidly changing. SHAEA should be positioned to align and tackle these realities

SHAEA and linkages to the Sustainable Development Goals

The SHAEA Project is one of several interlinked activities that is being implemented by RUFORUM to deliver on its broader Vision 2030 Strategy. RUFORUM's Vision 2030 is aimed at creating 'vibrant, transformative universities catalyzing sustainable, inclusive agricultural development to feed and create prosperity for Africa'. Four specific areas were highlighted for discussion which included i) enhancing linkages between the technical vocational education and training (TVET) sector and higher education in Africa; ii) Enhancing research excellence with African universities as pivots, through research chairs initiatives; iii) increasing regional academic mobility; iv) and strengthening staff capacities. The meeting also noted that the need to bring on board several partners to champion the best practices that SHAEA wishes to promote, but also to support the

deficit areas that are not fully covered by the SHAEA project. Other partners are called upon to offer complimentary support and to align existing programs to deliver on the Sustainable Development Goals and Agenda 2030.

Key lessons from partners

- There is need for SHAEA to set ambitious and bold targets;
- Country buy-in must be strong. Supply-driven programs often fail;
- Focus on the gaps -based on scaling up of best practices;
- Have the capacity to meet the regulatory requirement at country level;
- There is need to leverage the current investment in technical, vocational education and training (TVET) and build functional bridges among other education actors. This will also help improve TVET curricula to make them relevant;
- At secondary level of education there is need to change the mindset of young learners in order to raise interest in agriculture and create a sustainable pipeline of learners; there is a need to identify quick wins in agriculture since youth are very mobile group and want quick results;
- Need to connect universities with the private sector in multiple productive ways that draw mutual benefits. We must create opportunities for the private sector so that they can employ graduates. However, the private sector is not clear how it will fit into the programme;
- We must catalyze and raise the youth entrepreneurship. Need also to engage young people to integrate technology in agriculture;
- An institution with a network of partners has a larger multiplier effect than investing in a single university; and,
- SHAEA should explore mechanism for engaging Inter-University Council for Eastern Africa (IUCEA) to learn on how they have strengthened capacity development in eastern Africa (EA) universities building on the ACE implementation and regional accreditation issues

Key issues from perspective of the countries:

- The project should help in fostering collaboration among various institution involved in the agricultural innovation system which is currently disjointed;
- The project has potential to connect the universities to farmers through TVET. The project therefore offers opportunities to bridge the gap between these three tiers of actors. This can help to harmonize and coordinate institutions to work together e.g. create a platform that brings stakeholders together and catalyzes for alignment and relevance;
- The Project provides opportunity to strengthen extension service provision, development of entrepreneurship skills and to address the shortage of leadership skills in agriculture and related sciences;
- Need to strengthen linkages between universities and TVET institutions to train skilled human resources with practical skills to address the sector; also address critical issue of start-up support for TVET graduates to start on enterprises; and,
- Translate the entire document into French and Portuguese to allow for a better understanding of the project by francophone participating countries.

Strengthening the wider education system

1. Figure out how to break through “cast system” within the education and training systems so that the systems become less hierarchical;
2. Skills versus theory dichotomy –there are lessons to learn and share here; and,
3. Accountability for outputs graduates (tracer study) must be required of all training institutions.

Key risks for the Project:

- Sectors and institutions working in silos;
- Competition among universities during development of proposals might result in poor collaboration with the winning university;
- Inadequate knowledge of World Bank guidelines and procedures that often result in ineligible expenditures; and,
- Failure by universities to be regionally accredited.

How to leverage Development Partners (DPs)

- Lessons learnt from various program should be shared with SHAEA secretariat for incorporation in the design. Where gaps still exist, new studies can be instituted to come up with regional needs;
- Most important is how the program is aligned with DPs’ priorities. Important that the alignment should be done at design level ensuring that it fits in well with strategies developed by the DPs;
- RUFORUM and WB should undertake a mapping exercise to understand who is doing what, at what level and resources involved. This could help to coordinate properly with already existing program. This can well be handled at this level to identify which gap areas that are already been funded;
- Ensure complementarity at regional and country where DPs support program in remaining countries;
- Create country ownership by identifying their needs early/design level;
- More stakeholder consultations and the program should build in the flexibility to allow some changes to be made once a gap has been identified as project is being implemented
- The design should take into recognition that this should not be designed as a 5 year program that will continue to receive support for many years to come;
- In terms of how DPS can be involved at activity level includes: Capacity assessment in 6 gap areas and respond accordingly – donors to pick components (gaps) and regional/country coordination to share information/studies;
- RUFORUM should also find a way of sharing what has been discussed with donors that were not represented in this meeting; and,
- World Bank to facilitate RUFORUM to make presentations to donor groupings in each country to make them away of the upcoming project.

Creating sustainable platform will be key in SHAEA implementation. There was a buy in and commitment of big stakeholders from the private sector and partners and hence a need to follow up and build strong partnerships.

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1.0 Background

1.1 Introduction

There is inadequate attention being focused at present to skills development and knowledge in the agricultural sector which is constraining agri-food system transformation. A recent study (ACBF, 2016) revealed that only 2% of Africa's students study agriculture, a sector that contributes over 32% to GDP and over 80% of the workforce on average across the continent. By 2025, more than half of the job growth in Ethiopia, Uganda, Tanzania, Mozambique, Malawi, and Zambia will be in the agri-food sector, highlighting the opportunities and importance for action in the sector. At the same time, Africa still has the lowest number of researchers per million population at less than 100 compared to over 2500 for north America and 4500 in Japan (Fig.3). This will increasingly disadvantage Africa in a knowledge driven globally competitive environment. African needs to significantly increase the number of researchers, particularly to support agri-food sector growth.

Africa needs to urgently accelerate skills development and knowledge to support achievement of development targets. Advances in ICT and other areas provide important opportunities. Universities can lead the way by:

- (i) Delivering high quality and relevant training to produce a new generation of transdisciplinary problem solvers that can make use of modern technology, approaches and practical experience to be innovative, creative, entrepreneurial and relevant to sectoral and workplace demands;
- (ii) enhancing integration of the training with the agricultural sector demands and preparing skills that are relevant to the current and future needs of the sector;
- (iii) producing knowledge that is responsive to demand, relevant, action oriented and impactful and fostering university outreach to agricultural sector stakeholders;
- (iv) serving as a platform for all stakeholders and facilitating evidenced-based policy-making for sustainable and inclusive economies; and,
- (v) Serving as drivers for ecosystem change by supporting broader sectoral reform in the tertiary agricultural education sector, including for business, technical and vocational education in Africa.

The Strengthening Higher Agricultural Education for Agri-Food System Transformation in Africa (SHAEA) Project is a new World Bank regional project that is being prepared for implementation in six Africa countries (Cameroon, Ghana, Ivory Coast, Kenya, Malawi and Mozambique) with an overall objective to strengthen linkages between selected African universities and regional agricultural sector needs for developing required human resources to accelerate agri-food systems transformation in Africa. The Project will achieve this through strengthening (i) agri-food related education and training enhanced with transdisciplinary approaches and applied research at selected African regional anchor universities; (ii) university linkages to the regional agricultural sector – its priorities, needs and stakeholders; and (iii) university partnerships with public and private entities related to agri-food both within and outside the region. The Regional Universities

Forum for Capacity Building in Agriculture (RUFORUM)⁴ has been selected as Regional Facilitating Unit for the Project

1.2 The Partner meeting and its objectives

The meeting of key partners of the SHAEA Project was organized to explore potential for stronger collaboration in support of human capacity and high-level skills development for transforming agri-food systems in Africa. The meeting provided an opportunity for agricultural development and capacity building partners to share experiences and lessons and enhance synergies to accelerate building of human capital and skills for sustainable agri-food sector transformation in Africa. Dialogue focused on addressing Africa's higher agricultural education challenges and creating effective linkages to the technical and vocational education and training (TVET) sectors in Africa and attempted to respond to evolving workplace and sectoral needs and demands. Organized with sponsorship from the Dutch Ministry of Foreign Affairs through its Food & Business Knowledge Platform, the specific objectives of the meeting were to:

5. Share partners' experiences (what works, what does not work, and lessons) and future strategies in strengthening tertiary agricultural education in Africa;
6. Explore synergies in enhancing the relevance of higher education for agri-food system transformation in Africa using the new regional SHAEA investment Project and RUFORUM as platforms;
7. Dialogue on how best to ensure greater responsiveness of agricultural education to the agri-food system at national and regional levels, recognizing opportunities in advances in information, communication technologies and the future of agri-food systems in Africa; and,
8. Consider how a broad alliance can be established that will support strengthening agricultural education in Africa and the World Bank SHAEA project.

1.3 Approach

A two-day meeting (See Program- Annex 1) hosted by the Government of Kenya, was organized by RUFORUM and the World Bank, with sponsorship from the Food & Business Knowledge Platform of the Dutch Ministry of Foreign Affairs, The Food and Agriculture Organization of the United Nations and the Government of Korea (Partnership facility to the World Bank). The meeting brought together 61 participants (See Annex 2, List of Participants) that comprised representatives of the five countries (Cameroon, Ghana, Ivory Coast, Malawi and Mozambique), higher education and agriculture experts, and key development partners with an interest in tertiary agricultural education and strengthening high level skills for sustainable agri-food systems transformation in Africa. The plenary discussion were guided by background presentations on the proposed SHAEA Project action areas and deliverables, RUFORUM's Vision 2030 and the status and prospects for Africa's agri-food sector. The meeting provided a conversation space for development partners to share their thoughts and experiences on what needs to be done. The

⁴ RUFORUM is a network of 85 African agricultural universities in 36 African countries that aims to enhance the contribution of universities to meet national and regional development objectives in Africa. More information on RUFORUM can be accessed at www.ruforum.org

meeting was facilitated by Prof. Aldo Stroebel, Executive Director for Strategic Partnerships Strategy at the National Research Foundation of South Africa.

1.4 Organization of this Report

This report presents the proceeding of the two - day meeting. The report has been organized into seven sections. This section provides background to the meeting, including a brief description of the SHAEA Project and rationale/ objectives for the meeting as well as the meeting approach; Section two includes the opening session with key messages from the organizers of the meeting and the Government of Kenya. Section three, four and five capture the key presentations and discussions in the meeting, including a series of Panel discussions and comments from the participating countries. Section six and seven contain closing remarks from various partners that attended the meeting including RUFORUM and the World Bank.

2.0 Opening session

2.1 Remarks by Martine van Hoogstraten, Head Development Cooperation and Trade at the Netherlands Embassy, Nairobi, Kenya

To include

2.2 Welcome Remarks by Prof Adipala Ekwamu, Executive Secretary, RUFORUM

I am pleased to welcome you to the meeting on behalf of the 85 African University members of RUFORUM. RUFORUM works to implement its mandate from the African union to champion the delivery of Science, Technology and Innovation Strategy for Africa (STISA) 2024. The SHAEA project is a response to demand by National governments through the Ministries of Education and Agriculture to address the issue of human capital deficits to transform Africa's Agri food systems. I thank the governments of Malawi, Mozambique, Ivory Coast, Ghana and Cameroun for accepting to be part of SHAEA and request the government of Kenya to join this initiative as well.

We need to bring on board several partners to champion the best practices and support the deficit areas that are not fully covered by the SHAEA project. We see several areas that SHAEA is not covering that we will need other partners to offer complimentary support. I wish to convey my sincere thanks to the MasterCard Foundation for the support in this regard. Secondly we need to ensure research excellence in African universities through the research Chairs and we call upon national governments to support this initiative. Staff mobility is an important element for strengthening the capacity of teaching staff- in Europe it is prerequisite. In Africa we forget that the continent is connected geographically but human beings are not. It is extremely important for the continent to groom science leaders with a knowledge and understanding of the African continent. Africa must take the lead to champion the development of the African continent and we are thus seeking for partnership with other agencies. We hope that our brothers from South African, and Morocco will seize this as opportunity. This meeting therefore, provides opportunities to synergize efforts to transform Africa's agri-food system. I thank the WB for bringing National Governments on board and for the financial support; Government of Kenya for hosting the meeting.

2.3 Remarks by Dr. Simeon Ehui, Director, World Bank Agriculture Global Practice

Ladies and Gentlemen, the opportunities for the food system in Sub-Saharan Africa to generate jobs, promote sustainability and feed the rapidly growing and increasingly urban population are immense. On the behalf of the World Bank country management unit for Kenya, and the Agriculture Global Practice of the World Bank, it is my pleasure to welcome you at the joint Regional Steering Committee and Development Partners' meeting. RUFORUM, World Bank team and I look forward to the insights you will share today and tomorrow in the context of preparation of the significant new joint effort by the African partners with support by the World Bank and development partners, many of whom are present here today, to give a major new boost to agricultural education in the participating countries and on the continent.

We are joined here today by private sector leaders – Bayer, Nestle, OCP, and Syngenta Foundation. I would particularly like to welcome the representatives from the Higher Education and from the Agriculture sectors in Mozambique, Malawi, Ghana, Cote d'Ivoire, and Cameroon. I would also like to welcome the representatives from Kenya as the government is currently considering joining the SHAEA project. I would like to acknowledge the support of the Dutch Ministry of Foreign Affairs, the FAO and the Government of Korea (Partnership Facility).

Today we face unique opportunity to grow Africa's agriculture

- a) *The demand side holds incredible promise:* Food demand on the African continent is projected to grow over 150 percent by 2050. Yet, if current trends continue, heavy dependence on food imports is projected to continue into the future. At the same time, Africa's burgeoning youth population and unprecedented private investor interest in Africa's agri-food sector—including the projected tripling of investment in agribusiness already by 2030—present tremendous opportunity to generate employment, incomes and economic growth on the continent.
- b) *But the supply side cannot keep pace with demand due to severe bottlenecks.* Skills development in agricultural education has fallen far behind the sector's needs and become a significant bottleneck to realizing this potential.
- c) Around half of Africa's approximately 200 public universities teach agriculture; but as you know well, today's training in agriculture in SSA generally falls short of meeting the vast and rapidly changing needs of the modern food system.
- d) The main challenge is a mismatch between training curricula and skills needed to catalyze agricultural transformation.
- e) Skills that the youth need today are driven by the much greater need than in the past for training and experience on agri-entrepreneurship, capacity to design sound agricultural and cross-sectoral public policies for a sustainable food system, and risk management. A systemic approach, and attention to socio-emotional skills in addition to the technical skills on agricultural production and productivity are now more much more needed than before.

What it will take to take the agri-food sector skills to a new level in SSA?

- a) Addressing the human capital constraint to the growth of Africa's modern agriculture sector will require significant investment in developing a skills base that is more relevant in the context of the three mega-trends Sub-Saharan African economies are facing, respond to the

changing needs of the sector, and promote technological and scientific innovation in the food systems that needs to be taken to scale.

- b) Efficient and well-targeted investment in tertiary agricultural education is necessary to prepare the future cohort of capable policy makers, farmers, innovators and investors in Africa's food system.
- c) Equally as much attention is needed to build the capacity for sound agricultural policies – the absence of which is a key constraint to successful agricultural transformations.
- d) The attention to the skills agenda for promoting a paradigm shift in agricultural education, and ultimately jumpstarting the next agricultural revolution in SSA, is at a peak level at the World Bank. We have a window of opportunity to make a difference together with you and our African and international partners.

SHAEA proposal has been developed jointly by the World Bank and RUFORUM and ready for national consultations

- a) The World Bank has been working closely with RUFORUM to develop a concept for a new regional initiative to Strengthen Higher Agricultural Education in Africa (SHAEA). I would like to particularly thank Dr. Adipala Ekwamu for his tireless leadership in this process, and the excellent team he leads. The World Bank stands fully behind the initiative and has presented a project concept for this initiative for Bank-wide review.
- b) Last week, the Bank team and RUFORUM participated in national consultations in Malawi and Mozambique to further refine the project concept, and consultations are upcoming in Ghana, Cote d'Ivoire, Cameroon and –subject to government's confirmation – subsequently also in Kenya.
- c) The objective of the new regional program will be to strengthen competitiveness of African universities to produce skilled and entrepreneurial agricultural graduates who drive innovative agricultural sector leading to structural transformation of African economies. The vision is an agricultural sector in Africa with the skills and knowledge needed for inclusive sustainable growth in support of African Agenda 2063.
- d) Critically, the regional anchor universities which are at the heart of this program, will be supporting the development of cutting edge expertise in the key gaps areas in higher agricultural education identified through multi-year consultations by the African academia and other stakeholders (the Nairobi and Khartoum process facilitated by RUFORUM).
- e) In addition to offering that expertise, the programs must have strong regional relevance, to enable the anchor universities to become magnets for regional students. Thus, the benefits of modernized agricultural education will accrue not only to participating countries but at regional level. (Example: programs in Cote d'Ivoire must also be attractive to graduates from Mali and Burkina Faso and therefore must address key agricultural issues in those agro-ecologic contexts...)
- f) As a result of that program, the African partners and the World Bank aspire to
 - o support stronger agricultural universities and faculties in Africa,
 - o with linkages with agricultural and policy research institutions and the private sector,
 - o acting as catalysts to implement the vision and change the culture of teaching agriculture on the continent, and drive the economies,

- Better capacity in governments and agricultural policy think tanks to design evidence-based sound agricultural policy.
- g) Today, I invite you the RSC members and the DPs to consider the proposed SHAEA design, share your views, and identify areas of synergy that we shall pursue jointly with the support of the DPs, building on all the earlier dialogues we have had on this initiative.

2.4 Opening Speech by Amb. (Dr.) Amina Mohamed, Cabinet Secretary, Ministry of Education, Kenya. Delivered by Hon. Simon K. Kachapin, Chief Administrative Secretary

I am pleased to welcome all of you to Nairobi for this important workshop on Strengthening Higher Agricultural Education in Africa, also known as the SHAEA Project. I thank the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) and the World Bank for selecting Kenya to host this first regional workshop. I also thank RUFORUM and the World Bank for the pioneering work that has been done towards the development of creative models of agricultural higher education that enhance the performance of the sector and its contribution to economic development.

As we all know, a majority of the people in Africa, estimated at two thirds, derive their livelihoods from agriculture. Agriculture is therefore a key sector in the transformation of the continent. Unfortunately, however, the sector has, for decades, faced a wide range of challenges that have undermined its transformative potential.

These challenges are complex and include increasing productivity and profitability for farmers in an environmentally sustainable manner; developing breeds and varieties needed for sustainable production in the context of climate change; decreasing food loss and waste through more efficient distribution and consumption systems; developing efficient agricultural value chains with particular emphasis on value addition; integrating women farmers; and addressing nutrition issues.

Providing solutions to these challenges will enable the continent to transition from subsistence agricultural production that still holds in many parts of the continent to a vibrant commercial activity. This is an urgent imperative considering Africa now features the world's highest rate of urbanization, which calls for enhanced capacity to feed large urban populations through increased agricultural productivity. Moreover, transforming the agriculture sector into a lucrative commercial activity will generate the much needed opportunities for gainful employment for the burgeoning youth population in Africa

The importance of the SHAEA project cannot therefore be overemphasized. The Project aims to develop the competent human capital needed to drive the agri-food system transformation in Africa. I am encouraged to learn that the Project aims to achieve this through strengthening:

1. Agri-food related education and training by enhancing trans disciplinary approaches and applied research at selected African regional universities;
2. University linkages with regional agricultural sector and stakeholders; and,

3. University partnerships with public and private entities related to agri-food both within and outside the region.

These efforts are will help address 6 critical regional gap areas namely; agribusiness and entrepreneurship; agri-food systems and nutrition; rural innovations and agricultural extension; agricultural risk management and climate change proofing; agricultural policy analysis; and statistical analysis, foresight and data management.

The SHAEA Project's overall focus is in line with Kenya's agricultural development policy. Today, the transformation of the agriculture sector to ensure food security is among the four key priorities of our Government. While measures to ensure food and nutritional security encompasses the measures outlined in our Strategy for the Revitalizing Agriculture (SRA) which we launched in March 2004, we recognize the need to place emphasis on developing the human capital that will serve as the agents of the change we in agriculture.

There are challenges involved in this, especially because few students enroll in agriculture programs. In fact, some of the students who enroll do so because they were unable to gain admission to other fields of study considered to be of higher status. This attitude towards agriculture derives from images of poverty and drudgery that are associated with agriculture.

We are seeking to make agriculture courses more appealing by including elements that are attractive to students, such as exposure to modern technology, entrepreneurial training, internships and other opportunities. We look forward to benefiting from the SHAEA project in terms of creative models of agricultural higher education that presents farming as a profitable business along the agri-food value chain, makes agriculture attractive to young people, creates impact in rural communities and serves the needs of industry.

Equally important, we recognize that harnessing new technologies enhances productivity, increases employment opportunities, and improves the ability to move up the production value chain. Research shows that more than 60% of the difference between countries in terms of economic growth and worker income levels is a result of differences in total factor productivity, which is significantly derived from differences in technology.

We are therefore focused on encouraging and strengthening innovation. This will enable us develop the creative capabilities needed to develop and apply new products and processes that are environmentally, socially or economically relevant to various actors in the agricultural sector.

Our focus on agricultural sector education underpins our continued collaboration with RUFORUM since its creation in 2004. It is our desire to strengthen this engagement moving into the future. In this spirit, my Ministry looks forward to hosting the African Higher Education Week and RUFORUM Biennial Conference in October this year, which will be discussing how the education sector can catalyse response to Africa's development needs.

In conclusion, ladies and gentlemen, Kenya has been involved in the development of the vision of the SHAEA Project. We believe that this project has the right design to catalyse transformation of Africa's agri-food systems. It is my hope that this workshop will be another milestone in our

continuing efforts to create university agriculture education models that will catalyze change, energize innovation and motivate young people for careers in agriculture.

With these few words, I now declare this workshop open, and wish you all successful deliberations.

3.0 Agri-Food Systems Transformation in Africa

Two presentations were received by the Plenary to inform the meeting discussions. A presentation on “Agri-Food Systems Transformation in Africa and Related Skills Needs: Current and Future Considerations” was delivered by Prof. Frans Swanepoel from the University of Pretoria in South Africa. This was followed by presentation on the SHAEA Project design presented jointly by Dr. Moses Osiru (RUFORUM) and Dr. Xiaonan Cao (World Bank).

3.1 Agri-Food Systems Transformation in Africa and Related Skills Needs: Current and Future Considerations

The first presentation by Prof. Swanepoel, highlighted key definitions related to agri-food systems⁵ transformation in Africa including for transdisciplinary approaches etc and nutrition, the Comprehensive Africa Agricultural Development Program (CAADP), African Regional Nutrition Strategy (ARNS). Prof. Swanepoel provided important context on the agricultural food system in Africa. He also noted key skills gaps for the transformation of the agri-food sector such as: misalignment between demographics of graduates and SHF population, misalignment between type of training provided and skills needed in the workforce, and misalignment between level of training provided and sector needs. Other key challenges included that: Agricultural education and training is isolated from research and extension, poor feedback mechanisms, limited leadership, inefficient allocation of scarce resources. Key frameworks (science agenda for agriculture in Africa, CAADP etc) to guide Agri-system transformation on the continent were discussed.

Prof. Swanepoel noted important international lessons for Africa: i) the need for public investment in robust country-level institutions critical to strengthening AET systems from Latin America and Asia; ii) Expansion of postgraduate programs to invigorate research/researcher production as experienced by China; iii) Smallholder farmer-led agriculture in Vietnam, Japan and India and iv) Land grant-style institutions that integrate research, extension and training for enhancing agricultural system performance from the United States, India and the Netherlands.

In conclusion, Prof. Swanepoel recommended:

1. The need to set of focused investments in **quality** (e.g., *curriculum, resources*) for quick-win opportunities; immediate results, though likely small impact
2. **Improve student mix** (including gender mix) and focus on **graduate career opportunities** to increase graduation rate over medium-term; key dependency on job market development for graduates

⁵ “A food system consists of all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.), and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outcomes of these activities, namely nutrition and health status, socio-economic growth and equity and environmental sustainability” (HLPE, 2014).

3. **Technical education** has proved beneficial in all countries; however it is vital that the country governance system places sufficient priority on building effective extension, agribusiness growth and linkages with research
4. **Post-graduate education** is imperative build basic capacity or where research agenda is large and complex; impact dependent on labor market potential for graduates/retention and research system capacity
5. Investments that strengthen **linkages between education, research and outreach** are high potential as they enable the system to use resources more efficiently; are long-term, particularly where systems require structural change
6. **Governance investments** create core conditions for impact and sustainability; need to shift resources toward SHF impact areas and ensure structures/incentives for stability; long-term and require political will and accountability
7. **Regional training networks** provide appropriately trained graduates to support agricultural innovation system; medium-term require some international donor funding to initiate

3.2 Presentation on the SHAEA Project by the World Bank and RUFORUM

The Project Development Objective of the SHAEA Project is to strengthen linkages between selected African universities and regional agricultural sector needs for developing required human resources to accelerate agri-food systems transformation in Africa. Based on the consultations undertaken by RUFORUM to inform the Project design, six key gap areas were identified for the Project. The six key gap areas are: i) Agribusiness and Entrepreneurship; ii) Agri-food Systems and Nutrition; iii) Rural Innovations and Agricultural Extension; iv) Agricultural Risk Management and Climate Change Proofing; v) Agricultural Policy Analysis and vi) Statistical Analysis, Foresight and Data Management. The Project design has three components designed to meet the goal of the Project. The three components with related sub-components are described below.

3.2.1 Component 1: Strengthening Regional Anchor Universities (RAUs) in Regional Key Gap Areas with Specialization(s). Component 1 has three sub-components:

Subcomponent 1.1: Developing Sustainable Institutional Leadership and Management Capacity for Agri-Food Systems Transformation proposes to enhance Leadership and management capacity development for RAUs as well as to apply proven institutional change model to each self-identified challenge issue linked to regional key gap areas.

Subcomponent 1.2: Delivering High Quality and Relevant Research-based Training to Produce a New Generation of Transdisciplinary Problem Solvers for Agri-food Development. This subcomponent will focus on curriculum development by reviewing/improving content and relevance of existing programs, developing transdisciplinary courses/ programs, including online offerings, to address skill shortage in the identified regional key gap areas. It will also support program benchmarking/accreditation to ensure that programs supported will meet international standards, esp. those critical to addressing regional key gap areas, and support upgrading faculty's professional qualifications, including modern pedagogies and transdisciplinary approaches. Other elements will be to enhance entrepreneurship training to build skills for agri-food job-market, institutionalizing such training, to enhance access with cross-regional mobility

to cultivate a new generation of critical mass of agri-food scientists/technicians with an inclusive admission policy for degree students and short-term trainees (see Component 2 for targeting, on specific topic areas that are pre-defined by RSC, based on regional/national demand and priorities)

Subcomponent 1.3: Fostering University's Field-based Research and Outreach to Agriculture Sector Stakeholders. This subcomponent will strengthen research collaborations (while developing an experiential learning program for students) with agri-food relevant public and private entities such as research institutes, think-tanks, agribusiness firms, advisory services, farmers and public agencies. It will upgrade knowledge and skills of agricultural advisory service personnel with latest research findings and technologies relevant to their services. Support contributing to or leading national and regional agricultural policy dialogue and debate and disseminate agri-food related general knowledge/info to agricultural sector stakeholders

3.2.2 Component 2: Developing a Network of Agricultural Tertiary Education Institutions to Support Regional Agri-Food Transformation Needs

Subcomponent 2.1: Capacity-building Support to RAUs through Regional Interventions will address common inadequacies of institutional capacity facing RAUs – e.g. leadership, entrepreneurship, PS partnership development, outreach to AAS and farmers, M&E, grant management/revenue mobilization. It will also support faculty/students exchange among RAUs and sharing good practices. The third key area will be on partnership activity facilitation between RAUs and relevant regional agri-food organizations and networks in quality assurance, research, agribusiness, and agricultural policy (see Component 3).

Subcomponent 2.2: Capacity-building Support of RAUs to Associated Agricultural Tertiary Education Institutions and the Agriculture Sector. This sub-component is a critical one for the concept and will involve strengthening leadership and management offerings by RAUs to AATEI Faculty development – upgrading faculty's professional qualifications e.g. modern pedagogies and research skills, of AATEIs and improving and upgrading academic programs and standards of AATEIs

3.2.3 Component 3: Project Facilitation, Coordination and Management.

This component will be implemented by the RFU (RUFORUM) in collaboration with SHAEA implementation entities in each participating country. Activities will include:

1. Implementation oversight – with RSC and NSC, effective communications
2. Results assurance – results framework implementation and disbursement-
3. linked indicators (DLIs) verification
4. M&E, fiduciary and safeguards – support RAUs and facilitate their reporting in these areas
5. Knowledge-sharing – among RAUs on SHAEA implementation

The project will make use of a result-based approach using disbursement-based indicators (DLIs) to ensure outcomes. Funds will be disbursed against the independently-verified achievement of the agreed results. A proportion of project funding will be accessible to the agriculture sector for “purchasing” services from the RAUs to meet sector demands. This “purchasing” list will be

presented by the Ministry of Agriculture annually, approved by the NSC, and incorporated into the RAU annual work program. Funding for such “purchasing” disbursed when the agreed services are delivered, and the results independently verified.

For effective and efficient implementation, SHAEA has the following governance structure. A Regional Steering Committee (RSC) with 17-19 members with representatives from regional bodies, governments of the participating countries, agriculture experts, private sector. At the national level, A project steering (/Advisory) Committee (NSC) (MoA and MoE representatives for RSC, MoF/MoNP, Vice Chancellor(s) of the selected RAU, relevant higher education and agricultural key stakeholders) and at the institutional level, an implementation unit.

3.3 Clarifications and discussions

Participants were divided into groups and each group was requested to identify a group Chair and rapporteur. The groups discussed the two presentations and identified two questions to pose to the plenary related to the SHAEA design. The following questions were raised by the Group and answers provided by the World Bank and RUFORUM.

- i) Can countries with many eligible universities have more than one **Anchor University**? A. *This is still being discussed. The concept was for one regional anchor per university. However, depending on the funding ‘envelope per country’ there is discussion on possibility of a second anchor. This is still being discussed.*
- j) How will SHAEA **transform** the current **university system** that is designed to create losers and winners? A. *By targeting building linkages with the sector, including the private sector, by enhancing university leadership and management, enhancing quality of offering and impact on key stakeholders. A sizeable amount of funds will be made available for this transformation.*
- k) The private sector is expected to demand for services from the anchor universities. How will this be articulated? How can the **private sector** contribute to this initiative? How is this role going to be initiated (where it is not in place) and strengthened (where it is in place) with the respective anchor universities? How are these going to be sustained? A. *The Private sector are being brought as partners and university being provided with funds to innovatively learn from these partnerships. Sustainability must be built into the design of winning proposals. We are relying on universities to write a proposal and it is up to the universities to put in place mechanism that will foster sustainable mechanism for engaging the private sector.*
- l) In the current program design there is no explicit articulation of how **gender inclusion** will be implemented. The DLIs may demand only for numbers of students going through system but this is insufficient to measure **gender mainstreaming** in the project. *Gender inclusion is built into the project. The*
- m) How do we link with the other factors of **social change** and how are these going to be measured during implementation?
- n) Financial instruments-

- What are the **funding modalities**- loans or grants? A. *This will differ country to country, in some fully loan, others a blend of loans and grants.*
- What are key **performance indicators** for each component? A. *These are articulated in the DLI and results matrix*
- What are the modalities for **pre-financing** by national government? A. *There is none. The world bank will provide IDA allocation to each country on signing of agreement.*
- What is the **duration** of the project? A. *Five years.*
- o) What will happen if one of the participating countries does not have a university that qualifies to be an anchor? A. *All countries have at least one university that qualifies to be an anchor.*
- p) How will the **DLI** be measured to the full satisfaction of participating countries and anchor universities? A. *The DLI evaluation are based on independent verification and the method and approaches are clearly laid out and defined*
- q) What is the linkage between **SHAEA indicators** and the **Malabo indicators**?
- r) How will the anchor university project implementation actions be initialized based on the fact the is a performance-based investment project? A. *There is an initial seed funding that is meant to facilitate the implementation based on the completion of readiness process to implement the project. The DLIs are sequenced and structured in such a way that the universities will have the capacity to achieve the intended results after receiving initial seed funding.*
- s) How is the regional accreditation going to be handled? – the ACE countries struggled with finding regional accreditation bodies. A. *A number of the ACE projects now have experience with this and have been successful. This Project will learn from them and be facilitated by the RFU and the World Bank to achieve accreditation. This is a requirement for the Project.*

3.4 Key issues for follow up

The meeting noted that effective project implementation will depend on effective preparation and providing the universities on the Project objective. It will also depend on the different country processes. There is a very high expectation from a single university to play this role. A few issues were highlighted for further consideration and follow-up:

- a) Need to clarify and make explicit issues of gender inclusion and mainstreaming in the Project beyond the DLIs;
- b) We need to have a learning process embedded within implementation framework;
- c) Need to articulate the processes for supporting universities to prepare competitive proposals that will ensure objectives of the Project are met;
- d) The global conversation is now on digital economy and the light manufacturing space which is rapidly changing. SHAEA should be positioned to align and tackle these realities

4.0 Experiences in Skills Development for Agri-Food Systems Transformation in Africa (Panel discussions)

4.1 Panel 1 - Perspectives from Multi- and Bi-lateral Development Partners

4.1.1 USAID- Dr. Karen Duca

- USAID is undergoing some reorganization with focus on self-reliance of beneficiaries and as thus capacity development has become a cross cutting element in all food security program;
- SHAEA has already overcome the challenge of failures of food capacity development effort that were not demand driven;
- Need to Improve efficiency in measurement of capacity development impact and thus develop concrete measures of performance to track progress;
- Need to reflect on curriculum that it is addressing the demand of the system;
- Start small and progressively scale out building on emerging lessons;
- Giving research funds gives an incentive to both member of the faculty;
- USAID still figuring out how to collaborate with SHAEA to leverage on the efforts and offer complimentary opportunities;
- It is now the policy of USAID to engage other stakeholders in house and co-influence colleagues at Washington to understand what is going on in SHAEA;
- Capacity development internally in USAID is underway to change mindset to engage in transformational ideas and SHAEA critical presents an opportunity to learn; and,
- We are thinking of addressing the lack of coordination in the sector and thus a solicitation was developed to support this kind of initiative to provide coordination and develop a community of practice.

4.1.2 Nuffic- Dr. David van Kampen

- Based on country consultations, nuffic has developed a new food security program that is aligned to SHAEA and is interested in strengthening coordination and collaborative efforts;
- We listened to agriculture actors both here and Netherlands and we engaged with the WB to provide feedback into the SHAEA design and provided expert opinion during in some of the conversations; and,
- Will identify which strategic area to engage in to leverage resources.

Lessons:

- Strengthening agricultural innovation is key, USAID through feed the future programme has opened up a call for proposals covering African Countries which are supported under Feed the Future programme. This is expected to start in October 2018
- Country buy in must be strong. Supply-driven programs often fail
- Need to define better/clear indicators to track progress i.e. concrete TOC → results chain → results framework
- Need to build the matrix for sustainability as this is going to be a long-term process

- Focus on the gaps -based on scaling up of best practices

4.2 Panel 2 - Perspectives from Foundations

4.2.1 Syngenta Foundation- Dr Simon Winter.

1. Syngenta foundation established to support small holder farmers in Asia and Africa to improve their productivity using technology. The main focus area is seed systems improvement and putting in place risk mitigation measures such micro insurance;
2. The skill building component is very critical to Syngenta. Syngenta has been building networks across the continent of seed scientists, breeders, and training the breeders in application of the latest knowledge in their field of expertise;
3. Delivering of a service to smallholders, through merchandise dealer cooperative structures; and,
4. We need to think beyond the agriculture department in universities to engaging schools of business. This has proven useful for universities in Asia, but not yet replicated in Africa.

What has worked?

1. Syngenta has the capacity to develop new products and effectively deliver them to the end user. Such mechanisms for delivery need to be developed in universities.
2. Have the capacity to meet the regulatory requirement at country level
3. The delivery of technologies and products done through crowding small holder farmers around a given technology
4. Syngenta is a potential partner in SHAEA through facilitating organization learning and developing content for convening. Sustaining multi-stakeholder platforms are increasingly becoming relevant in supporting agri-food system transformation.

4.2.2 MasterCard Foundation -Dr Kimberly Kerr

The foundation is targeting to train 3 million young people which is an ambitious target for the organization. The foundation is supporting programs relevant to SHAEA including support to the Transforming African Agricultural Universities to meaningfully contribute to Africa's growth and Development (TAGDev) Project at the RUFORUM Secretariat which involves:

- Community action research programs linking universities to smallholder;
- Strengthening entrepreneurship in universities and engaging with the TVET institution;
- provide scholarship to disadvantaged but qualifying youth to access higher education; and,
- Challenge funds to expand the reach to other member universities.

The MCF Scholars program is targeting over 9000 students across all level and most of the students are choosing agriculture as their choice of discipline

What has worked?

- The programmatic area of the foundation is now working in a more integrated manner to address agricultural education;

- Under the education program, there is need to leverage the current investment in TVET and build functional bridges among other education actors;
- At secondary level of education there is need to change the mindset of young learners raise interest in agriculture to create a sustainable pipeline of learners;
- Need to connect universities with the private sector in multiple productive ways that draw mutual benefits;
- There is need to set ambitious and bold targets;
- There are indeed overlaps and areas of synergy between MasterCard and SHAEA on entrepreneurship, multi-stakeholder engagement. MCF will focus more in the coming years at individual transformation as opposed to institutional transformation; and,
- We must catalyze and raise the youth entrepreneurship. Need also to engaging young men to integrate technology in agriculture.

4.2.3 DAAD – Mr. Bonface Nyagah

The German Academic Exchange Service (DAAD) is the world’s largest funding organization for the international exchange of students and researchers. DAAD focuses postgraduate programs (MSC and PhD).

What has worked?

- An institution with a network of partners has a larger multiplier effect than investing in a single university;
- Since 2015 DAAD has awarded over 1000 scholarship and there is a renewed investment in higher education sector;
- SHAEA should explore mechanism for engaging the Inter-University Council for East Africa (IUCEA) to learn on how they have strengthened capacity development in EA universities building on the ACE implementation and regional accreditation issues.

4.2.4 Andrew Young Foundation- Dr Joyce Norman

- There are overlaps between Foundations’ objectives and the SHAEA initiatives: e.g. intersections around agribusiness, entrepreneurship training, policy dialogue, institutional transformation, transfer of technologies (Andrew Young on Hydorponics, aquaponics.)
- Must catalyze youth entrepreneurship;
- There is need to help improve TVET curricula to make them relevant;
- SHAEA must look into how to bring the youth to adopt new technologies; and,
- We must create opportunities for the private sector so that they can employ graduates.

4.3 Panel 3 – Perspectives from Private Sector

4.3.1 Bayer AG-Wolfgang Heep

- Bayer informed about the smallholder farmer initiative in Asia and Africa and which pilots are started and planned for 2019 to improve productivity and at least livelihood;

- All aspects of the of a small holder farmer value chain a taken into respects to develop improvements;
- For this Bayer developed together with partners an alliance for “Better Life Farming” announced in April at the World Bank Forum in Washington;
- On pilot project level Bayer is open for cooperation with local universities and to share knowledge and technologies;
- Technologies development for smallholder farmer is seen as an important tool to improve small holder farmer status and will play a role in the pilot projects;
- Bayer is working on a capacity building postgraduate education program for talents to transform agricultural systems with small scale farmer to higher efficiency. An exchange with RUFORUM and the related universities and ministries is of high interest;
- Bayer is open to develop strong relations with the African universities and RUFORUM;
- The Private sector is ready to work with Universities and end users not only to sustain their companies but also that of end users (small farmers) as well;
- Positive outcomes and impacts have been achieved such as improved food availability, utilization, market research and reduced food waste;
- The private sector is ready to collaborate more and learn from the programmes they offer and possibilities for both research and development for the benefit of large/small farmers;
- Emphasis is also to work with the youth to create employment and information dissemination; and,
- Although the private sector is not clear how it will fit into the SHAEA programme, it is positioning to work with the programme.

4.4 Panel 4 – Reflections from Countries

Country representatives to the SHAEA Project were requested to provide their thoughts on three questions i) what will success look like in your countries? ii) What are the gaps will this project address in your country and iii) what are the risks?

4.4.1 Cameroon

- The country has a vision to which this project responds. The strategic sectors that have been selected include agriculture which is a very important for the country
- SHAEA is linked to the national research agenda and it will help in connecting the research taking place in universities to national research agenda, particularly for the anchor universities.

Vision of success

- The economy of Cameroon is characterized by poverty and unemployment in the rural areas and SHAEA should address this if the project is to be successful
- Improvements in productivity of the agriculture sector linked to knowledge producing centers which are the universities

- The project should help in fostering collaboration among various institution involved in the agricultural innovation system which is currently disjointed
- Keep agriculture an attractive destination for young graduates. Currently young qualified people do not want to work in the sector they seek for white collar jobs

4.4.2 Ghana

- A national agriculture education system that is closely connected to the national agriculture innovation system and is effectively contributing to the growth of the sector and net economic output;
- The RAU will emerge from the process and become a reference point in Africa for agricultural higher education;
- The higher education sector working collaboratively with the private sector; and,
- Agriculture and agribusiness as a course becoming fashionable and attracting the youth by demonstrating how the academia can contribute to agri-system value addition gaps

Risks

- Develop implementation framework to allow the institutions to take ownership of the project as opposed to being perceived as a WB project. Issues to do with motivation should be factored into the design and links to the sustainability of the project;
- Universities are not used to collaboration outside the academic space hence to maintain the continuous focus on the outcomes and how this needs to spread other entities within the system.

4.4.3 Mozambique

- The project has potential to connect the universities to farmers through TVET. The project therefore offers opportunities to bridge the gap between these three tiers of actors;
- The country has developed a national accreditation body that certifies credentials for vocational training and the body is also funded by the private sector. This will be an entry point for private sector engagement with the project.
- There are private players providing internship to young and graduate students;
- We have developed an international partnership for academic exchanges spanning over many decades both in Africa with RUFORUM and in the Caribbean;
- Among the gap areas identified by the program, we are competitive in policy work, statistical analysis.

We need to address challenges and not call them risks. Thus, the main challenge of the program is to Establish establish multi-stakeholder platform to collaborate with the various agri-system actors building on the existing partnership with the continent.

4.4.4 Malawi

The project offers:

- Opportunity to strengthen extension service provision
- Development of entrepreneurship skills for the young people in the sector
- Address shortage of leadership skills in agriculture and related sciences
- Strengthened linkages between universities and TVET institutions to train skilled human resources with practical skills to address the sector

Challenges

- Universities will compete but as a nation we need to select a university that has capacity to transform
- Ensure to keep within the implementation time frame
- Keeping within the WB guidelines, rules and regulations hence an need for thorough orientation of universities in the banks operation and procedures
- Regional accreditation process need to articulate on how success will look like.

4.4.5 Ivory Coast

- The project will help in structuring better skilling programs that will address key capacity deficit especially in the climate change and proofing;
- The project will address the challenge of development of entrepreneurial skill among the youth to address the youth unemployment challenge.

Challenges

- There are changes in the national governance since the country has just gone through reform with the appointment of new minister that will need re-orientation; and,
- Translate the entire document into the French and Portuguese to allow for a better understanding of the project by francophone participating countries

4.5.6 Summary of Country Perspectives

Success

- The higher education in agriculture to have much impact on economic growth and improve processes and value addition;
- Regional anchor universities to emerge from the project as reference point in terms of research outputs, graduates etc;
- Highly motivated university staff through capacity building to be offered by programme
- Address shortage of skills in the agriculture sector;
- Agribusiness and agriculture to become fashionable/ attractive to the youth; and,
- Improve the delivery of programmes and delivery of extension services

Key gaps

- The programme to reduce poverty and unemployment especially among the youth
- Shortage of skills and leadership resulting to low productivity;
- Integration of national agriculture programmes and research and teaching/private sector;

- Translation of the documents in languages of participating countries.

Risks

- Sectors and institutions working in silos;
- Implementation framework for anchor universities to own the project and motivate staff;
- Competition among universities during development of proposals might result in poor collaboration with the winning university;
- Inadequate knowledge of World Bank guidelines and procedures that often result in ineligible expenditures; and,
- Failure by universities to be regionally accredited.

5.0 Priorities of the RUFORUM Strategy 2030 to be Leveraged through Partnerships to Expand Impact of the SHAEA Project

The SHAEA Project is one of several interlinked activities that is being implemented by RUFORUM to deliver on its broader Vision 2030 Strategy. RUFORUM's Vision 2030 is aimed at creating 'vibrant, transformative universities catalyzing sustainable, inclusive agricultural development to feed and create prosperity for Africa'. A presentation was delivered by Dr. Sylvia Mkandawire on the other important areas that need to be strengthened to ensure that the relevant skills and knowledge are in place to transform Africa's agri-food sector. Four specific areas were highlighted for discussion which included i) enhancing linkages between the technical vocational education and training (TVET) sector and higher education in Africa; ii) Enhancing research excellence with African universities as pivots, through research chairs initiatives; iii) increasing regional academic mobility; iv) and strengthening staff capacities. A group work exercise was used to discuss each of the four areas with each group outcomes shared below.

5.1 Create linkages between the Anchor Universities and TVET. Challenges and opportunities (Chaired by Prof. Alice Pell, Cornell University, USA)

What are the issues or challenge around TVET in the SHAEA Project?

- TVET Institutions/Colleges and universities are very different institutions it is not always easy to foster collaboration. The institutions are not necessarily under the same Ministry. Agricultural TVET is usually under the Ministry of Agriculture and universities fall under the Ministry of Education. In the Netherlands the "borderless network" has been introduced to foster discussion and collaboration. Partners are stimulated to have mutual collaboration in their training and to work together, develop capacity development, foster team building, and encouraging partnerships. Transformation is a journey and not a short-term exercise.
- What are the issues of bringing the diverse groups together? There is definitely a difference in perspective of the general academic compared to TVET and skills.
- Institutions are competing for budget or to enter the international market for funding and sometimes there is no incentive to work together. There is a difference among the institutions on accessing international funding, programs and collaborations. At the university level there is room for lecturers to reach out, but this is not necessarily the way technical institutions work. Technical institutions are likely required to spend all their time teaching.
- TVET institutions are more skills-based but aspire to become more like universities. Ghana is working with the University of Applied Sciences in Germany to model its technical skills training and general academic progression along this line.
- In Cameroon the Ministry of Agriculture oversees TVET institutions and in agricultural training at secondary level, there is no clear coordination. Entrepreneurship could provide this bridge.

- In Kenya although students go through TVET, they still want to attend general academic universities for certification and white-color jobs.
- The market on TVET versus general university education is not perfect and neither is the information on for e.g. earnings from TVET versus general academic education readily available to potential students.
- In Cote d’Ivoire the Ministry of Agriculture oversees all agriculture training but other ministries in this space include the Ministry of Skills Development, the Ministry of Higher Education, an Agriculture Research Center etc. All these institutions do not necessarily work together or collaborate. The academic universities sometimes offer professional courses in agriculture and the Ministry of Agriculture has also set up training in agriculture but the certificates from this skills training is not recognized by the Ministry of Skills which is mandated to recognize this training. The challenge in Cote d’Ivoire lies therefore in harmonizing the various training providers and in the recognition of certificates.
- In Uganda, TVET institutions are scattered across various sectors. Universities do not want to let go of their short-term skills training because this is an important source of internally generated funds. TVET institutions base their training on competency-based approach.

Commonalities and Solutions:

- Universities and technical colleges/institutions should be market driven and the regional institutions could play an important role here.
- Entrepreneurship could be another unifying concept for institutions.
- Action research orientation towards solutions to community problems could be an important meeting point.
- Organize platforms for discussion among providers i.e. universities and technical institutions. The idea is to move towards role depreciation rather than mandated roles. This is the type of discussion which led to the development of the Technical Skills Development Program under RUFORUM. Universities were then required to train instructors for the TVET institutions on a skills basis. The conversation must start with agreement to harmonize and align.
- The driver for the universities and institutions in collaborative discussion could be an effort for both sides to appreciate the other. Universities could get hands-on skills training and this appreciation could provide a great opportunity for discussion.
- Universities must act and think within TVET space—share the TVET space.
- Institutions must be held accountable for their products or graduates. They must provide skills for the market and this can be done through tracer studies. In the Netherlands the curriculum was developed with the participation of the two groups.

Presentation Summary

4. Harmonize and coordinate institutions to work together e.g. create a platform that brings stakeholders together and catalyzes for alignment and relevance.
5. Figure out how to break through “cast system” within the education and training systems so that the systems become less hierarchical.
6. Incentives and rewards (including financial/budget) for successful collaborations.

7. Skills versus theory dichotomy –there are lessons to learn and share here.
8. Accountability for outputs graduates (tracer study) must be required of all training institutions.

5.2 How could DPs and SHAEA Leverage Each Other's Mission with concrete suggestions

- SHAEA is generally geared towards addressing the needs of the agri-food system and the agriculture sector through strengthening universities
- The starting point for leverage is to pull some of the needs identified in the first presentation by the professor from SA and other available studies
- Lessons learnt from various program should also be shared with SHAEA secretariat for incorporation in the design
- Where gaps still exists, new studies can be instituted to come up with regional needs
- Most important is how the program is aligned with DPs' priorities. Important that the alignment should be done at design level ensuring that it fits in well with strategies developed by the DPs
- The theory of change should be clear with indicators that will determine the amount of resources to be required
- RUFORUM and WB should undertake a mapping exercise to understand who is doing what, at what level and resources involved. This could help to coordinate properly with already existing program. This can well be handled at this level to identify which gap areas that are already been funded
- Complementarity at regional and country where DPs support program in remaining countries
- Create country ownership by identifying their needs early/design level
- More stakeholder consultations and the program should build in the flexibility to allow some changes to be made once a gap has been identified as project is being implemented
- The design should take into recognition that this should not be designed as a 5 year program that will continue to receive support for many years to come
- Learning curve – put in place feedback mechanism to allow other programs to interphase with SHAEA
- Lack of learning has also contributed to status now. Most of the universities have visions and strategic plans but major challenge is that they have failed to implement their plans largely because they do not know to change an institution to respond to the emerging needs
- The SHAEA concept has not aligned its components to the 6 gap areas identified. Components are more activity level against thematic areas. the hope of the group is that the university proposals will fill these gaps
- SHAEA secretariat should be assisted to align to the 6 gap areas and identify which ones are already been supported by other DPs

- In terms of how DPS can be involved at activity level includes;
 - Capacity assessment in 6 gap areas and respond accordingly – donors to pick components (gaps)
 - Regional/country coordination to share information/studies
- Mapping can be done at regional and country level to see the overlaps. RUFORUM is representing Universities but there is need for another group of DPs to coordinate at donor level
- RUFORUM should also find a way of sharing what has been discussed with donors that were not represented in this meeting
- World Bank to facilitate RUFORUM to make presentations to donor groupings in each country to make them away of the upcoming project

Design phase

- There should be a structure in place to establish what is taking place in different countries
- the theory of change to help map the gap areas where the partners can play a complimentary role as SHAEA is not going to work on isolation
- the engagement beyond the non-SHAEA countries
- Development partner is not about funding only but also collective collaboration in other spheres
- the set of activities should be explored/ mapped against on-going interventions to avoid duplication of efforts

Promotional and coordination activities

- There is need to strengthen coordination among partners to know who is doing what and where
- Keep all relevant partners informed of the on-going process in regard to SHAEA implementation
- The mapping should demonstrate how SHAEA components are interlinked with to partner activities
- The design is the most significant stage that we should embrace and keep the notion of collaboration and avoiding working in silos
- The partner emphasis condition at least once in the two years

RSC response

- Partner need to help during the implementation to focus the team to look outside on other viable options that will be supporting of implementing the SHAEA flagship
- The Partner need to think how the transformation will happen especially by linking the new demands of skilled graduates. These may include working space, tools, and start-up capital

- What are the follow up action. Can donor establish a community of practice on tertiary agriculture education just that what is happening elsewhere and plan to convene once in a year

Creating sustainable platform will be key in SHAEA implementation. There was a buy in and commitment of big stakeholders from the private sector to and partners and hence a need to build strong partnership.

6.0 Statements from key implementing partners

6.1 Prof Montague Demment, Vice President, International Programs, Association of Public and Land-grant Universities (APLU)

If we want Africa to develop, then the development of human capital is key. . There is growing U.S. interest in the role of higher education in Africa. APLU is engaging the U.S. federal government to increase activity and funding for higher education in Africa. The challenge is to transform higher education institutions to be more relevant to their national needs and to provide the human capital to sustain development.. APLU is pleased to work closely with RUFORUM on SHAEA and other initiatives and to encourage our public research university to partner with African universities as appropriate in support of SHAEA’s objectives.

6.2 Prof Marrienne van Dorp, CDI , Wageningen University and Research

Wageningen University and Research is committed to global development of food systems and commit to contribute to SHAEA through the borderless network – an education initiative for the Dutch green sector (agriculture, nature and food) that is redefining its position within the national green knowledge system. This is a form of education that cut across universities and TVET institutions and this network offers a learning opportunity for what is working.

6.3 Dr. Wanjiru Kamau-Ruttenburg, Director, AWARD

SHAEA offers the opportunity to shift the trajectories in transformation of higher education. Bringing the gender lens into the SHAEA will help transform education and connecting the dots on how institutional transformation in determined in terms of who does what and help the project benefit from the talent of a half of the population. In the review of the DLIs as performance incentive there is need to include supportive programmatic actions for gender transformation.

7.0 Closing remarks

7.1 Prof Adipala Ekwamu, Executive Secretary, RUFORUM

The fears are frightening because there is desire to change universities. Universities tend to work in isolation. In terms of levels of engagement with partners there is hope that yes, we can. At implementation we will need to establish the performance indicators that really measure the desired transformational change. In respect to the fact that RUFORUM is less known in Ivory Coast and Cameroun, we commit to work on this during the in-country consultation

7.2 Dr Simeon Ehui, Director, Agriculture Global Practice, World Bank

Dr. Simeon Ehui thanked RUFORUM for bringing everyone in the organization on board. He thanks particularly the Dutch government through the Food and Business Knowledge platform for the support to the convening. We are all more than convinced that we are seeing light at the end of the tunnel and we need to count on the steering committee to help in steering the project. He also thank the World Country teams of the world bank for the support and local coordination for the project. He highlighted the important need to enhance youth employment and linkage with the TVET. The in-country consultation are raising a lot of ownership at the country level but conversations need to remain frank to ensure that we can be disruptive in the way we are implementing things. The World Bank is committed to continue talking to various stakeholders to support the initiative,

Annex 1. Meeting Program

Thursday, JULY 12

Time	DP & RSC Joint Session	Comment
08:30 – 9:00	<i>Registration</i>	RUFORUM
09:00 – 10:00	Welcome by World Bank Kenya Office (Country Director for Kenya) Opening Remarks by 1. Meeting Sponsor (<i>MoFA, Netherlands</i>) 2. RUFORUM (<i>Executive Secretary</i>) 3. World Bank (<i>Director of Agriculture Global Practice</i>) 4. Government of Kenya (<i>Cabinet Secretary, MoE</i>)	Facilitated by Dr. Aldo Stroebel, Executive Director, NRF of South Africa 1. Martine van Hoogstraten, Head Development Cooperation and Trade at the Netherlands Embassy in Nairobi 2. Prof. Adipala Ekwamu, Executive Secretary of RUFORUM 3. Dr. Simeon Ehui, Director, Agriculture Global Practice, World Bank 4. AMB. (Dr.) Amina Mohamed, Cabinet Secretary, Ministry of Education, Kenya
10:00 – 10:30	<i>(plenary)</i> Agri-Food Systems Transformation in Africa and Related Skills Needs: Current and Future Considerations (keynote speech)	Prof. Frans Swanepoel, University of Pretoria, South Africa
10:30 – 11:00	<i>Morning Coffee/Tea Break</i>	
11:00 – 12:00	<i>(plenary)</i> SHAEA Project Design - Objectives and beneficiaries - Components and main activities - Results framework - Financing modality - Implementation arrangements	RUFORUM & WB joint presentation led by Dr. Moses Osiru (RUFORUM) and Dr. Xiaonan Cao (WB)
12:00 – 12:30	<i>(small groups)</i> Formulation of Questions Based on Morning Presentations	Small group discussion (6 groups)
12:30 – 13:00	<i>(plenary)</i> Q/A Based on Group Questions	Facilitated by RUFORUM
13:00 – 14:00	<i>Lunch (mixed seating arrangement)</i>	
14:00 – 17:00	<i>(plenary)</i> Experience in Skills Development for Agri-Food Systems Transformation in Africa (<i>presented by the four panel sessions below</i>):	Moderated discussion
14:00 – 15:00	Panel 1 - Perspectives from Multi- and Bi-lateral Development Partners	Moderated by Prof. Alice Pell, Cornell University, USA
15:00 – 15:30	Panel 2 - Perspectives from Foundations	Moderated by Prof. Linus Opara, Stellenbosch University, South Africa
15:30 – 16:00	<i>Afternoon Coffee/Tea Break</i>	
16:00 – 16:30	Panel 3 – Perspectives from Private Sector	Moderated by Mr. Marcel MballaEkobena, Tomagro Coop
16:30 – 17:00	Panel 4 – Reflections from Countries	Moderated by Dr. Munhamo Chisvo, CEO, FANRPAN

17:00 – 17:20	Reflections of the Day by WB and RUFORUM	Dr. Simeon Ehui (WB) & Prof. Adipala Ekwamu (RUFORUM)
17:20 – 17:30	House-Keeping	RUFORUM
18:30 – 20:00	<i>Getting to know each other and further exchange over happy hour</i>	

Friday, JULY 13

Time	DP Session	Comment
08:30 – 09:00	<i>Registration</i>	RUFORUM
09:00 – 09:30	<i>(plenary)</i> Further Clarification Q/A and Suggestions on SHAEA Design	Facilitated RUFORUM & WB
09:30 – 10:30	<i>(small groups)</i> Priorities of the RUFORUM Strategy 2030 to be Leveraged through Partnerships to Expand Impact of the SHAEA Project <ul style="list-style-type: none"> ✦ TVET Linkages ✦ Research Chairs ✦ Regional Academic Mobility ✦ Strengthening Staff Capacities 	A short presentation by Dr. Sylvia Mkandawire of RUFORUM and facilitated by RUFORUM (4 groups)
10.30 – 11.00	<i>(plenary)</i> Share Group Discussion Results	Facilitated by RUFORUM
11.00 – 11:30	<i>Morning Coffee/Tea Break</i>	
11:30– 13:00	<i>(group discussion)</i> How Could DPs and SHAEA Leverage Each Other's Mission with Concrete Suggestions: <ul style="list-style-type: none"> • at regional level • at country level • at activity level 	DP & RSC sessions will be in parallel <ul style="list-style-type: none"> • The DP sessions to be chaired by NUFFIC • The RSC sessions to be facilitated by RUFORUM
13:00 – 14:00	<i>Lunch (mixed seating arrangement)</i>	
14:00 – 15:30	<i>(group discussions continue)</i> Expected Outputs: <ul style="list-style-type: none"> • Indicative Partnership Opportunities in Specific Areas/Countries 	<i>(same arrangement as the above)</i>
15:30 – 16:00	<i>Afternoon Coffee/Tea Break</i>	
16:00 – 16:30	Way Forward	
16:30 – 17:30	<i>(plenary)</i> DP and RSC Representatives Share the Results/Outcomes of the Day	Facilitated by RUFORUM

17:30 – 17:45	Closing Remarks	<ol style="list-style-type: none"> 1. David van Kampen, Partnership Officer, NUFFIC 2. Dr. Simeon Ehui, WB 3. Prof. Adipala Ekwamu, RUFORUM
18:30 – 20:00	<i>Getting to know each other and further exchange over happy hour (/departure)</i>	

Keys:

SHAEA – Strengthening Higher Agricultural Education in Africa (proposed investment project financed by the World Bank)

DP – Development Partners

MoFA, Netherlands – Food & Business Knowledge Platform (FBKP), an initiative of the Ministry of Foreign Affairs of the Netherlands

NRF of South Africa – National Science Foundation, South Africa

Nuffic – The Dutch organization for internationalization in education

RFU – Regional Facilitation Unit (for SHAEA coordination)

RSC – Regional Steering Committee (for SHAEA)

RUFORUM - The Regional Universities Forum for Capacity Building in

Agriculture **WB** – World Bank

Annex 2. List of participants

No	Name	Designation	Organisation	Email
1	Prof. Shinjiro Shiomi	Expert Africai-ai-JAPAN Project at JKUAT	Japan International Cooperation Agency (JICA) Kenya Office	shiomi.shinjiro@friends.jica.go.jp
2	Simeon Ehui	Agriculture Global Practice	World Bank, Washington DC	sehui@worldbank.org
3	Xiaonan Cao	Co-Task Team Leader, Education Global Practice	World Bank, Washington DC	xcao@worldbank.org
4	Dr. Carl Larsen	Consultant	Independent consultant	larsencalle@gmail.com
5	Ermette Williams	Senior Advisor to the Chairman and CEO	Andrew J. Young Foundation	epwconsult@gmail.com
6	Aldo Stroebel	Executive Director International Relations and Cooperation	National Research Foundation (NRF), South Africa	aldo.stroebel@nrf.ac.za
7	Montague Demment	Vice President, International Programs	Association of Public and Land-grant Universities (APLU)	mdegment@aplu.org
8	Mr Onesimus Maina	Country manager for Kenya	African Development Bank	O.MAINA@AFDB.ORG
9	Prof. Frans Swanepoel	Senior Researcher, Centre for the Advancement of Scholarship	University of Pretoria	frans.swanepoel@up.ac.za
10	Dr. Norma Joyce Payne	Consultant	Andrew J. Young Foundation	joyce.payne@tmcf.org
11	Younes Berrada	Office of the CEO and Chairman OCP Group Morocco	OCP Group	Younes.BERRADA@ocpgroup.ma
12	Dr Anouar Jamali	Director of Research & Development Africa	Mohammed 6 Polytechnic University	Anouar.JAMALI@um6p.ma
13	David Mwangi	Senior agricultural advisor	European Commission	Mwangi.NJURU@eeas.europa.eu
14	Karen Duca	Technical Advisor to Feed the Future Human and Institutional Capacity Development	International Development Advisor US Agency for International Development	kduca@usaid.gov
15	Kimberly Kerr	Director Education, Learning and Youth Livelihoods	Mastercard Foundation	kkerr@mastercardfdn.org
16	Bonface K. Nyagah	Programme Officer, German Academic Exchange Service (DAAD)	German Academic Exchange Service (DAAD)	bonface@daadafrica.org
17	Hyeyoung Shin	Country Director	Korea International Cooperation Agency (KOICA), Kenya Country Office	hyshin@koica.go.kr 254-20-239-1888(~9)
18	David van Kampen	Nuffic	Nuffic	dvankampen@nuffic.nl
19	Huba Boshof	Nuffic	Huba Boshof	hboshoff@nesosouthafrica.org

20	Duncan Marigi	Programme Officer for Agriculture	Embassy of Sweden, Nairobi-Kenya	duncan.marigi@gov.se
21	Marianne van Dorp	CDI	Wageningen University and Research	marianne.vandorp@wur.nl
22	Wolfgang Heep	Business Affairs & Communications, Crop Science, Market Analysis	Bayer AG	wolfgang.heep@bayer.com
23	Dr. Mary Shawa	Member of RUFORUM Finance and Administration Committee	Ministry of Transport and Public Works.	mnyajere@gmail.com
24	Janet Cheron		USAID	icherono@usaid.gov
25	Dr. Ousmane Badiane	Director IFPRI Africa Office	IFRI	O.BADIANE@CGIAR.ORG
26	Gary Wiltshire		Logos Industries	gary.logosindustries@gmail.com
27	Wanjiru Kamau-Ruttenburg	Director	AWARD	w.kamauR@cgiar.org
28	Dr. Simon Winter	Executive Director	Syngenta Foundation for Sustainable Agriculture	simon.winter@syngenta.com
29	George Osure	Regional Director	Syngenta Foundation East Africa	george.osure@syngenta.com
30	Aaron Fenu	Corporate Communications and Public Affairs	Nestle	Aaron.Fenu@ke.nestle.com
31	Nancy Madigu	Sustainability	Nestle	Nancy.Madigu@ke.nestle.com
32	Rose Makenzi		Embassy of the Netherlands, Nairobi-Kenya	rose.makenzi@minbuza.nl
33	Adipala Ekwamu	ES	RUFORUM	e.adipala@ruforum.org
34	Moses Osiru	DES	RUFORUM	m.osiru@ruforum.org
35	Sylvia Chindime Mkandawire	Manager	RUFORUM	s.chindime@ruforum.org
36	Charles Owour	Manager	RUFORUM	c.owuor@ruforum.org
37	Anthony Egeru	Manager	RUFORUM	a.egeru@ruforum.org
38	Maureen Agena	Corporate Communications and Advocacy Officer	RUFORUM	m.agena@ruforum.org
39	Jean-Philippe Tre	Sr. Agriculture Economist	World Bank, Cote D'Ivoire	itre@worldbank.org
40	Eunice Ackwerh	Sr Education Specialist	World Bank, Ghana	edapaah@worldbank.org
41	Hardwick Tchale	Sr. Agriculture Economist	World Bank, Ghana	htchale@worldbank.org
42	Pedro Arlindo	Agriculture Economist	World Bank, Mozambique	parlindo@worldbank.org
43	Time Fatch	Sr. Agriculture Specialist	World Bank, Malawi	tfatch@worldbank.org
44	Professor NKOA François Colin	Technical Adviser	Ministry of Agriculture and Rural Development, Cameroun	fcnkoa@yahoo.com
45	Prof. Aron Logmo Mbelek	Point Focal Technique National PDDAA	MINESUP, Cameroon	logmoa2003@yahoo.fr

46	Comoé Kini Bernard	Director	Ministry of Agriculture and Rural Development, Ivory Coast	bcomoe@yahoo.fr
47	Prof. N'Goh Bakayoko	Advisor to the Minister	Ministry of Higher Education and Scientific Research, Ivory Coast	ngohbakayoko@yahoo.fr
48	Richard Annobil	Director of Projects	Ministry of Food and Agriculture, Ghana	richardkannobil@gmail.com ; adannson@gmail.com
49	Prof. Salifu Mohammed	Executive Secretary	National Council for Tertiary Education, Ghana	salifum@ncte.edu.gh
50	Dr. Eviness Nyalugwe	Deputy Director of Crop Development	MoAIWD, Malawi	Evinessnyalugwe@gmail.com
51	Dr. Samson MacJessie - Mbewe	Director of Higher Education	MoEST, Malawii	mpchoice2006@yahoo.com
52	Mr Carlos Mucavela	Advisor to the Minister	MoA, Mozambique	carlosmucavele@gmail.com
53	Dr. Ivone Muocha	Deputy Director of the Center for Research & Technology Transfer	MoSTESTP, Mozambique	muochaivone@gmail.com
54	Prof. Linus Opara	Research Chair	Stellenbosch University	opara@sun.ac.za ; umunam@yahoo.co.uk
55	Prof. Alice Pell	former Vice President	Cornell University	ap19@cornell.edu
56	Marcel Mballa-Ekobena	CEO	Tomagro Coop	marcelmballa@yahoo.com
57	Dr. Munhamo Chisvo	CEO	FANRPAN	ceo@fanrpan.org
58	Mr. Stanley Kimereh	FAO Kenya-Office	FAO	Stanley.kimereh@fao.org