



Agricultural Tertiary and Vocational Education and Training (ATVET) in Africa

Report panel 47 Africa Knows Conference

The panel was organized in collaboration with RUFORUM, Wageningen University & Research and Nuffic and was part of the “Africa Knows! It is time to decolonise minds” Conference. It focused specifically on how ATVET can bridge the gap between higher education, other forms of learning, and the business community.



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Introduction

On December 3, 2020, the Netherlands Food Partnership facilitated Panel 47, entitled “Agricultural Tertiary and Vocational Education and Training (ATVET) in Africa: integration within the broader Agricultural Knowledge and Innovation System”. The panel was organized in collaboration with RUFORUM, Wageningen University & Research and Nuffic and was part of the “Africa Knows! It is time to decolonise minds” Conference. It focused specifically on how ATVET can bridge the gap between higher education, other forms of learning, and the business community.

“Africa Knows!” is the closing activity of the 2020 Year of Leiden African Studies Association. The Conference started with an online opening event on December 2-4, 2020, involving many partners from Africa and Europe, and introducing keynote speakers. The conference continued with 50 thematic panels during the following 3 months, of which Panel 47 on ATVET in Africa was one, consisting of two, ninety- minute sessions conducted virtually.

Session 1 - Policy Reforms for Agricultural Tertiary and Vocational Education and Training (ATVET) in Africa

(11.30-12.45)

Welcome and Opening Remarks

Jennie van der Mheen - Manager International Cooperation Africa at Wageningen University & Research (WUR)

Short introduction of the session:

- This panel focuses specifically on how ATVET can bridge the gap between higher education, other forms of learning, and the business community.
- The morning session focuses on policy reforms for ATVET in Africa, starting with continental policy strategies and programmes, after which an example of a national policy reform will be presented, followed by a discussion in which all are invited to actively participate.
- The afternoon session focuses on integration of ATVET in broader national agricultural knowledge and innovation systems in Africa.

Continental policies, strategies & programmes

Caroline Mutepefa - Senior Programme Officer ATVET, Youth Employment and Skills Development Department at AUDA-NEPAD Agency

Challenges faced by ATVET in Africa

- AUDA-NEPAD has been implementing the ATVET Project effectively across the continent since 2012.
- Despite challenges, great strides towards education and training reform over the past decade have been made on the continent.
- AUDA-NEPAD is guided by Agenda 2063, a blueprint for Africa's development, it has been shaping their interventions in the countries they are working in.
- Those working in this field, may be familiar with these challenges, as these are not isolated to any particular country. AUDA-NEPAD observed similar challenges across the continent on 3 levels:

Macro level

- Fragmented ownership of TVET – multi-stakeholders working in parallel. This is particularly the case for agriculture, where different ministries are involved.
- The lack of recognition of agricultural qualifications. Causes a challenge to graduates.
- Unregulated traditional apprenticeship – no recognition of informal/non-formal training and major issues around Recognition of Prior Learning (RPL) on the continent.
- Mismatch between supply & demand. AUDA-NEPAD sees this as one of the biggest challenges.
- Limited financing is a great concern. Limited budgets always mean that there are financial constraints when it comes to implementation.

Meso level

Referring to institutional strengthening (qualification authorities, TVET bodies, any kind of institution that has been given the legal mandate to work within TVET and specially in ATVET. Also training institutions themselves (i.e. carrying out training on the ground).

- Low quality and ineffective training (poorly equipped to carry out vocational training itself)
- Insufficient funding.
- Weak policy – it required a lot of work to strengthen policies.
- Outdated curricula - not demand driven.
- Very much theoretical with little technical training on the ground.
- No continuous teacher/training, as a result, training was not always up to date with international best practices.

Micro level

Looking at the individual; the trainees themselves. What are some of the challenges they face and inhibitions they have towards entering ATVET?

- Low prestige on the continent and unattractiveness of TVET - young people rather go to university.
- Lack of funding - people are not always able to afford attending training, hampering enrolment in TVET institutions.
- Gender-based inequality: women's participation remains very low - particularly in TVET as it is traditionally seen as suitable for men/boys.

Key insights

- Many TVET centres have been converted to Universities. This was done to increase the number of university graduates, however it has ultimately lowered the number of TVET graduates themselves.
- Curricula had not been updated in decades for many countries.
- Recognition of Prior Learning (RPL) remains a key challenge.
- Qualification Frameworks do not exist in some countries - how to implement systems that take into account job prospects (finding a job or entering different market segments).

CAADP-ATVET Project focus areas

The project's primary approach was system based ATVET reform and training, aligned to the Continental TVET Strategy for Africa. In this project five focus areas were developed to support job creation, financing for sustainability and private sector inclusion:

1. Policy reform.
2. Institutional Strengthening - TVET Bodies, qualification authorities. Much effort was done to ensure that the institutions would be sustainable and could continue operating long after the interventions have ended.
3. Agricultural Training Centres (ATC) capacity building. Supported organisational development to ensure that ATCs function as modern technical training centres and are able to provide to the needs of the communities surrounding them.
4. Curriculum Development – advocated to use Competency-Based Training (CBT) methodology and to modularise curricula. This would mean that anyone doing a specific training in a specific value chain could extract a module (on e.g. planting) and be able to build competency in that area or another of choice to be trained further in.
5. Agripreneurship and Gender Sensitive Training. When it comes to entrepreneurship, as much as building technical modules and building those competencies, graduates should have an idea of business concepts. AUDA-NEPAD concluded that many graduates lack this knowledge and even farmers on the ground lack this knowledge. This results in them not running their entities as profitable enterprises. The agripreneurship curricula that AUDA-NEPAD developed contains basic concepts around businesses, marketing, occupational health and safety, etc. This could potentially allow farmers to increase the quality of their product and enter different or new market segments. AUDA-NEPAD very much stimulated gender sensitive training. This went beyond merely looking at numbers of women trained, it also included possibilities for reform/empowerment within the work that women do.

The project ran in 12 countries: Burkina Faso, Ghana, Kenya, Malawi, Namibia, Rwanda, Sierra Leone, South Africa, Togo, Tunisia, Uganda. Technical support in the countries was provided by GIZ, the projects main implementing partner. Other partners provided implementation support, e.g. Norwegian Embassy (in Malawi).

Zooming in on policy reform

What exactly did AUDA-NEPAD do and how did they carry out policy reform?

The Process - 6 Key Steps:

1. Lobby and secure national commitment for reforms through consultations and joint exchange forums at regional and international level.
2. Ensure that ATVET is included in National Agricultural Investment Plans (NAIPs) and any other relevant education and training policies.
3. Develop professional and occupational career pathways, by ensuring that agricultural technical qualifications are mainstreamed into the National Qualification Frameworks (NQFs) or Technical Vocational Frameworks and addressed by statutory certification and approval bodies.
4. Adopt Competency-Based Training (CBT) reforms to improve curriculum and assessment practices. This included a lot of sensitization and Training of Trainers (ToT) on the approach itself. Much success was booked with regards to the implementation in the 12 countries.
5. Support dialogue to forge partnerships between the public and private sectors, and to encourage employers to provide on-the-job training.
6. Establishing steering bodies or other structures to implement cooperative and coordinated activities between education and training agencies and the private sector. To be able to continue work after intervention ended.

Zooming in on private sector engagement

- Extracted from the Policy Brief - Public-Private Partnerships (PPP) for Skills Development. This policy brief can be shared with those interested in understanding different steps that AUDA-NEPAD identified and learn about successes and case studies that are articulated in it.
- Step by step approach to Private sector Engagement: this was used in all countries with modifications and variations where necessary.
- This approach exists of 3 tools:
 - Tool 1 looks at Framework Conditions for the Private Sector in ATVET Reform
 - Tool 2 looks at Effective PPP in ATC Management and Training in ATVET
 - Tool 3 looks at Private Sector Financing Models for ATVET
- Identified these three areas as main entry points where the private sector had to be more or fully engaged when it comes to ATVET in order for the system to be a success.

Zooming in on linking demand and supply

One of the key areas where AUDA-NEPAD realised a lot of work is still required is linking demand and supply. Therefore:

- All curriculum development was preceded by a thorough value chain analysis (determining opportunities). The implementing countries made use of the value chain approach, as they were responsible to identify which agricultural value chain for which they wanted to develop curriculum.

- A stakeholder mapping was conducted to understand the landscape when it comes to training, market, etc. followed by a training needs analysis, to understand the training gaps in specific value chains. Finally, the private sector was involved in the value chains (demand).

Demand:

- Private Sector must articulate their immediate and future labour requirements.
- Contribute to curriculum development (Occupational Standards).
- The project was successful in bringing the private sector on board.

Supply:

- System (training providers, public institutions, etc.) must be labour-market oriented, responding to needs, using updated training curricula.
- Curricula development aligned to private sector needs.

Trainees, as a result of the above:

- Emerge as job ready and have a higher likelihood of finding employment (or self-employment) in areas where there are training gaps.
- Develop soft skills, this is necessary to be professional and successful.
- Are equipped for self-employment as an option.

The ATVET Project achievements (2011 – 2020)

- **Successfully domesticating ATVET**
Anchoring agricultural training and skills development in national agricultural strategies and policies (10 countries policies /strategies supported to articulate ATVET and 9 National Qualification Frameworks (NQFs) include ATVET).
- **Institutional strengthening of TVET authorities and bodies**
For provision of timely and relevant skills and training (12 TVET authorities strengthened).
- **Building the capacities of Agricultural Training Centres (ATC's)**
Modern labour-market relevant training and relevant services offered to their surrounding communities (37 ATC's supported in organisational development, institutional self-assessment and gender-sensitive training. Over 900 trainers in the ATCs trained in ToTs).
- **Curriculum Development**
- Demand-driven curricula responding to priority agricultural value chains in high income generating / high employment potential segments (38 curricula developed, all curricula include modules for life skills).
- **Private Sector**
Partnerships for TVET delivery, including in training (WEL – Work Experience Learning; 2,700 ATVET trainees completed an internship in a private company as part of their formal training).
- **Gender Transformative Approaches incorporated**

Going beyond the numbers of women trained towards ensuring the training responds and contributes towards women empowerment by taking a 360 degree view on training access, formats and challenging societal norms (26 ATCs reviewed their institutional workplans to include gender guidelines and 17 of the ATCs now offer gender-sensitive training).

- **ATVET for Women (new project)**

In 6 countries a project – for women agripreneurs – adapted to local needs was piloted.

- **Agripreneur training**

Building business competencies to complement the technical skills development (over 12,000 value-chain actors trained within the context of formal and non-formal training measures).

- **Knowledge co-creation and exchange in the partner countries**

Facilitating Knowledge exchange to share and learn from each of the countries. Over 20 knowledge products, tools, checklists and guidelines were developed.

AUDA-NEPAD's ATVET Outlook

Priorities and possible actions at continental level in the next 10 years:

Short term:

- Ensuring that ATVET is contributing towards youth employment/job creation.
- Finalising the Africa Continental Qualification Framework and domesticating it in the AU member states.
- Private sector engagement is amplified, ensuring that curricula is responsive to the labour market.
- Promoting business skills development within the TVET curricula for enterprise development and self-employment.

Long term:

- Gender transformative TVET delivery, ensuring women's access is improved and more women are participating in ATVET.
- Aligning ATVET to global standards, especially in line with digitalisation, modern techniques, and methodologies.
- Establishing sustainable financing and funding mechanisms in each African country.

National Policy Case Study: Kenya

Eusebius Mukhwana - Director General, Kenya National Qualifications Authority (KNQA)

- Shares experience of TVET reforms in Kenya.
- After independence people in Africa were very optimistic about fighting issues such as poverty and other ailments. Fifty years down the line some of these issues have been resolved, but many of the challenges still stand.
- One of these key challenges is investment in TVET. Looking at higher and middle-income countries, a big correlation between the level of investment in TVET and the national economic development is found.

- Within Kenya there is a big vision for TVET, i.e.:
 - Ensuring equitable access to TVET.
 - Improving quality and relevance.
 - Improving management and administration.
 - Enhancing the attractiveness of TVET.
- Kenya has benefitted from the AU CAADP-ATVET Project in terms of mobilising the nation to reform its TVET policies. Several partners are involved in the reforms, but currently the main driver is the Kenyan government.
- The Kenyan economy is highly reliant on agriculture (25% of GDP, employing about 70% of workforce, mostly rural). Therefore, investing in agriculture means investing in the majority of people and especially the rural poor.
- However critical gaps have been identified within the training of agricultural workers. Some of these issues include: no harmonised agricultural curricula, low participation of youth/not interested in agriculture, mismatch between knowledge and practices at farmer level.
- To address this the Kenyan government came up with the following recommendations:
 - Strengthening capacity and coordination; improving knowledge, skills and competencies of agricultural workers (vocational training seen as big contributor).
 - Catching up with technology.
 - Standardizing and harmonizing training and education.
- A lot of training has been done at Ministries of Agriculture, Livestock and Irrigation. There are a number of institutions within ministries that provide training: e.g. Meat Training Institute (MTI), Dairy Training Institute (DTI), etc. So far nearly 33 Agricultural Training Centres and some private institutions and universities play a role in these trainings.
- Since 2013 the TVET Act is in place and through this act three different authorities were established:
 1. TVET Authority, which accredits institutions and programmes, carries out quality assurance and manages issues of trainers to ensure there is a Trainer Qualification Framework.
 2. TVET CDACC, to develop curricula for the TVET sector and ensure moving towards CBT (not just theoretical) training and assessment.
 3. TVET Funding Board, in order not to rely on government or donors, which was a big constraint. The funding board works with all players in the agricultural sector to ensure the sustainable training of agricultural experts.
- The Kenya government also worked on ensuring there is enough linkage between people taking TVET programmes and other academic programmes. For this purpose, the Kenya National Qualification Framework (KNQF) was created. This framework helps to harmonise and better coordinate qualifications within Kenya. 10 levels of Kenyan qualification were created. There are several academic routes possible currently, which link to TVET equivalents, to enable students to interact and jump between levels (from academic to TVET and back). This addresses one of the reasons why TVET was not very popular, it was missing links with the qualification system.
- Harmonised qualifications by aligned learning hours across and credits for different levels to enable students to move between levels. It is now a requirement to develop a curriculum that fits into the KNQF learning hours and credits. This ensures that all training, public and private, meets requirements for specific levels. The KNQF set minimum standards for each level.

- Created National Qualifications Information Management System (NAQIMS) framework to integrate issues of and better coordinate between institutions, qualifications and learners - both national and foreign, at all different levels.
- Challenges related to relevance and quality of qualifications were addressed in the reforms, such as access, attractiveness and affordability of enrolment. The later addressed through e.g. rebranding, efforts to include ICT in TVET, centralised placement of students, funding board established to support students through loans and grants and determining unit costs for different learning qualifications.
- Important gaps were addressed including, amongst others: many new TVET institutions were developed, one in each constituency (290); TVET institutions were equipped; introduced using CBET curricula; employed new trainers (government employed nearly 10.000 TVET trainers in last two years); introduced a Trainers Qualifications Framework; Credit Accumulation and Transfer system (KCATS).
- The challenge that remains is that of labour market linkages through labour market information collection.
- **Conclusion:** To get high quality TVET programmes, a lot of effort is required. Processes of policy reforms are important, there must be political good will. In Kenya there has been this political good will and deliberate efforts to make TVET a place of choice for young people to learn and to collaborate with different partners. In the longer term reforms should be able to bring TVET where it belongs. Parts of this could be useful for other African countries, e.g. how to build reforms within the TVET sector and the need for national government's participation in reforms for them to be sustained.

Open Discussion

Moderated by Alice Mweetwa - Deputy Executive Secretary for Programme Development and Implementation at the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) Secretariat in Kampala, Uganda

Question: In presentations a lot of gaps were identified, specifically around issues of gender. We see a very strong focus on gender mainstreaming in TVET reforms, addressing issues of funding, policy, curricula harmonization and many other. But there are also other emerging issues, especially as a result of COVID-19 and other challenges on the continent. What are other opportunities and actions that could be taken to continue developing skills needed in SSA? E.g. responding to ICT needs.

Caroline:

On the issue of digitization/ICT: AUDA-NEPAD realised the need to change its approach to leave no one behind. Currently a lot of work is being done with ICT providers to see how to offer training to those in remote areas. Part of current approach is taking in-person training to the people (out of training centre). This is especially important for women's groups, often isolated in remote rural locations. With regards to the COVID-19 challenges ICT options are being explored, e.g. collaboration with organisations that can set-up WiFi systems in a local community centre where people can access different digital services for free.

On gender/women: We train women, but in male/female households we encourage men to also participate and to make them realise that training women does not lead to dis-empowerment of men. This has also been confirmed by a recent study of IFRI.

Question: Has an analysis been made why (A)TVET is not attractive for youth and parents? What opportunities are there to increase attractiveness?

Eusebius:

Part of the challenge of TVET is a colonial mentality, i.e. training for white colour jobs. It has taken a lot of time to understand that not everybody can be a manager. We need different skills and this is part of de-colonizing the mind. ATVET is considered to be dirty work, while people want clean jobs, but these are not available for everyone. To make ATVET attractive to young people, the entire TVET value chain needs to be addressed. This starts with looking at occupational standards before developing curricula; talking to employers, industries and other private sector stakeholders to determine occupational standards and co-develop curricula. Making sure those curricula are only accredited to institutions that have capacity (equipment, teachers, etc.) to ensure quality and link to labour markets. If any of these aspects in the TVET value chain is broken, these become disincentives. This process must be supported by policy and the political environment. The emphasis on all levels must be on skills, not just theory.

In Kenya we are developing national policy on Recognition of Prior Learning (RPL), to appreciate that not all learning takes place in a formal setting. It is flexible and modular, this makes it easier for students to 'come in and go' for specific modules. Moreover, we are trying to develop policies on issues of technology, gender, funding. e.g. student loans and grants.

Question: In your response you talk about the need for occupational standards to help develop curricula. How does the formal education system in Kenya link with informal training in the country? In your diagram, you showed a link between TVETs and other levels of training. What is the synergy and involvement of the different levels of training institutions in curricula development?

Eusebius:

We have a National Skills Development policy, which looks at the evolving and changing work environment. Part of this policy is the development of occupational standards in cooperation with industry, private and public sectors as well as farmers and other stakeholders through establishing Sector Skills Councils. These advise on what should go into a curriculum for each level, for any type of sector (ICT, horticulture, dairy, livestock, etc.) and what skills students should attain at each level. Within the TVET sector we have identified 25 sectors, each of which has a Sector Skills Council. Representatives of nine of these 25 Sector Skills Councils, have formed the National Skills Development Council. What we are establishing as part of this policy reform is that a curriculum cannot be developed without it being approved by that Sector Skills Council. The National Skills Council sets standards in terms of how each of those Sector Skills Councils will function. We start with the end in mind: what do you want this person to be able to do?

The reforms involve a lot of people. In the case of Kenya, the reforms were kick-started to some extent by development partners, but the Government of Kenya has taken it up and is now funding a lot of the curricula development. They have created an institution to sustain those ideas. In the Kenya National Qualification Framework we came up with the national standard for developing curricula, which private and public institutions must meet.

Question: In both presentations there was call to continental action on three issues: 1) we need to establish a network to learn from each other, 2) we need to have continental policy standards as well as guidelines to support the TVETs and 3) we need to have research outreach and promotion of the TVETs. These are very

good ideas. As indicated by Caroline, part of what they have done is knowledge creation and exchange. What are ways in which this can be done? How can we use the experiences and successes from the 12 countries where reforms have already been done?

Eusebius:

Having worked in both the university and the TVET sector, one of the issues witnessed when working in the university sector is that there is a very clear network of universities, with different associations, councils and umbrella organisations. TVET has been a neglected area. What the AU has done is very important in terms of developing a continental policy for TVET, which can however not be implemented by the AU. The continental policy should support each country's reform agenda, to make its TVET more vibrant and attractive to industry and young people. A continental network of TVET will be helpful. Through the AU there is an informal Community of Practice, where we discuss e.g. about RPL, where we are thinking about a continental policy for RPL. Part of the missing link in the TVET sector is that there are a lot of efforts and good reforms (e.g. Ethiopia and Rwanda have done a lot of good work), but all of these islands of success remain isolated from each other. Part of building continental momentum for TVET is to look at how we can get these little islands of success, which can be found e.g. in South Africa, Malawi, Zambia, Uganda, to speak to each other and to share experiences to build momentum and vibrancy for this vital TVET sector.

Recap

By Alice Mweetwa

- We heard from the national point of view and more specifically from Kenya. There are efforts on the continent to try to bring reforms. From continental level efforts, there are 12 countries where the CAADP-ATVET project is implemented.
- Some of the issues we see arising from those efforts include: issues of gender inclusion and equity, and issues of assisting/facilitating national financial sustainability to make sure aspects of these reforms can continue beyond the project.
- Currently there is domestication and strengthening of ATVETs in those countries; building capacities, curriculum development. In terms of the later, we recognize that there is need to include different actors, including the private sector, in different levels of training. In the case of Kenya, the establishment of standards to guide the curriculum development is very important. This is something we can take to other countries to further develop their ATVET.
- There is a need for a good policy environment to support these processes. Therefore we need advocacy.
- Currently, as result of COVID 19, we need to consider ICT technology to reduce the digital divide. We should look at aspect at the national and local levels, to see how to digitize processes, which also include training.

Concluding Remarks

David van Kampen - Deputy Manager Global Development, Nuffic

- Very impressed by the structural approach of CAADP-ATVET project, both in categorizing challenges and the interventions described at macro, meso and micro level.

- It was mentioned a couple of times that (A)TVET is scattered around different Ministries. Practitioners are also a force of nature if they join forces, share best practices and seek synergies, also in influencing policy. Practitioners, implementers, experts can influence policy to contribute to a more structured approach.
- The attention for gender is also very important and line with Dutch policy and the attention we give to the position of women and making it more inclusive and part of every intervention on different levels. That is much needed, from policy to practice.
- The Kenyan case shows that the system approach is also facilitating individuals and their value in the labour market. The labour market (the private sector) has the right to know what the intrinsic value of a diploma is. This is a way to do this: in diploma recognition and structuring the certification of training. This also gives strength and rights to individuals to know what their added value is and what they will get back from investing their time and tuition fees.
- These are just parts of the puzzle to make ATVET attractive for individuals. It is also about the integration in the educational value chains. As Nuffic, we always want to include different levels of education in our projects and work together from ATVET to higher education, which also plays a role in shaping the attractiveness. But also role models: people that speak out and follow that route and show that you can be successful in this area.

Session 2 - Integration of ATVET into broader systems of agricultural knowledge, skills and innovation

(14.30-15.45)

Welcome and Opening Remarks

Frans Verberne – Netherlands Food Partnership

Main conclusions/summary of session 1 on policy reforms for ATVET in SSA:

- Caroline Mutepefa provided many important macro, meso, micro level insights from the well-structured approach to strengthen ATVET. I was impressed by the extensive and clear framework and roadmap to strengthen ATVET, as well as the set of tools and checklist for interventions to engage private sector and articulate their needs as part of curricula development.
- Eusebius Mukhwana provided an overview of the thorough framework for the national level and what has been achieved by the framework in Kenya in the past years.
- Both mentioned important drivers and challenges. Two key challenges: 1) investment/funding and 2) the need to link demand and supply. Linking those two was also a topic in the discussions.
- As we all know, youth are not attracted by agricultural sectors. This was also an important topic in the discussion. ATVET diplomas will help young people to enter the labour market, but also showing successful youths in the agricultural food sector, functioning as positive role models, could help to attract young people.

- What I personally missed, is a reference to an attractive agricultural food sector, which is needed to increase demands. Transformation of the agricultural food sector is really needed to build a successful ATVET infrastructure.
- Eusebius Mukhwana stated that we need to speak to each other about our islands of success, to build momentum for ATVET in SSA. The idea of a continental ATVET network is great, as also agreed upon by Caroline Mutepefa, stating that this is long overdue and much needed to drive the agenda for ATVET in Africa.

Background Study Report - Agricultural Tertiary and Vocational Education and Training (ATVET) in Africa: integration with broader AKIS

Richard Hawkins - Partnerships and Project Development, iCRA Foundation, Wageningen, the Netherlands

Presenting the draft report, commissioned by Netherlands Food Partnership in preparation for this conference, looking in particular at the integration of ATVET within the broader agricultural knowledge and innovation systems of SSA.

Study on ATVET in SSA - review at 3 levels:

- Regional – desk review of TVET and ATVET reviews. (Due to COVID not possible to travel to locations)
- National (desk) review and validation of 6 selected SSA countries (Benin, Ethiopia, Ghana, Kenya, Nigeria Uganda + Netherlands as a counterpoint to look at differences).
- Institutional - 9 commissioned case studies to illustrate challenges/successes by individual ATVET institutes. Selected on the basis of the areas interested in, such as the way in which these particular ATVETs were linking up with either private sector, NGOs and extension activities; how they were struggling to implement some of the policies; how they were linked to universities and other educational institutes.

Eleven basic conclusions - “propositions” and “opportunities”- identified

The conclusions represent my own view and do not necessarily represent the view of the organisations which commissioned this study. The conclusions are purposefully put in a provocative sense, in the hope to raise discussion.

- 1. Policy effectiveness:** National Policies/legal frameworks for (formal) TVET and ATVET are increasingly in place - but the implementation of these policies is proving complex, yet to be fully effective.
Support continued ATVET policy development, review and reflection, at continental, national or organizational level. The countries looked at have now almost 20 years of trying to develop and implement these policies, but it is quite a complex process. As seen in the presentation of Eusebius, there are a lot of moving parts to these policies in the institutional landscapes and activities that need to be undertaken to put them into practice. Particularly for outside agencies that want to support ATVET in SSA it is important to be aware of the policy development that is taking place and support that as much as possible.
- 2. Skills identification:** ATVET is increasingly under education authorities (previously often under agriculture). This creates linkage issues, and inter-sectoral agricultural skills councils are yet to become operative and effective. Identification of key occupations/competencies are lacking.

Promote national networking by supporting and operationalizing intersectoral ATVET working groups or skills councils. In many cases in the colonial era, ATVET was started under ministries of agriculture, but are increasingly moved towards ministries of education because of the emphasis on CBET particularly and to try and build a comprehensive TVET system. Agricultural skills councils - which still need to become more effective - are key for the operationalisation of these linkages, also with the private sector.

- 3. Competency-Based E&T:** Introduction of CBET is widespread - but understanding of this approach and its implementation is still lacking in most ATVET institutions and instructors.

Support continued ATVET policy development, review and reflection, at continental, national or organizational level. Many trainers/instructors in ATVET have not necessarily received their own training in a CBET approach - support to developing the capacity of instructors is going to be key.

- 4. Occupational Standards:** No broad international consensus to the definition of agricultural "occupations" - some relating occupations to value chains, and others maintaining a broader approach.

Promote international and national dialogue on how best to define agricultural occupations and support the development of occupational standards of key/priority occupations.

Looking at different countries and projects supporting ATVET, there is no broad consensus on how we go about occupational standards. There is a variety of approaches out there and a lot of differences in terms of how specific you may be. More dialogue between countries and different organisations supporting TVET on how best to define these occupations will be very beneficial in many ways.

- 5. ATVET prestige:** Agriculture and also TVET are both unattractive to young people. ATVET is seen only as step to something more attractive, lucrative. Academic progression important to many ATVET students, who value university qualifications more.

Promote agricultural and food-related occupations as rewarding and remunerative careers, through publicity campaigns showing the potential of careers and entrepreneurship in the agri-food sector.

ATVET is not very attractive to many people. Many farmers do not want their children to follow them on the farm and in schools agriculture is often viewed as a lower prestige occupation. ATVET is thus doubly unattractive. Need to think about that. In some countries measures to counteract this include branding exercises.

- 6. Academic Progression:** Overlapping activities, programmes of ATVET colleges, polytechnics, applied S&T universities and universities provide opportunities and challenges. Compatibility within a single NQF framework is difficult.

Promote international/national discussions on the strategic development of integrated institutional landscapes in agricultural education; flexible yet complementary mandates.

The presentation of Eusebius showed that the framework in Kenya includes both programmes. In some other cases, some of the TVET programmes were regarded by potential students as being a dead end, in the sense of academic progression, and it is seen as difficult to progress from some of the TVET programmes in a particular country to a university programme. Universities are seen as more prestigious, so many students actually see TVET as a stepping-stone to a university education, rather than an end in itself. Need to be a little careful in terms of what we expect from students and how they see the different types of education and how they are put together in these national qualification frameworks.

- 7. Informal ATVET:** Efforts to regulate, certify and accredit “non-formal” and “informal” ATVET – which include much activity by externally-supported value chain development projects - are ambitious and could potentially limit such activities.

Support ATVETs as a component/integral activity in VC projects and integrating ATVET into advisory services (practical experience by ATVET trainees, feedback to occupational standards, curricula and training materials, specific/ essential equipment at ATVETs, etc.

Much informal ATVET is done by extension programmes, implemented by NGOs who teach/train farmers across Africa through farmer field schools, variations of farmer business schools or practical training farms, etc. Many of these do not have formal accreditation from national authorities, although formal TVET authorities are looking to see how this can be formalized with the aim of making sure such activities are of good quality. The flip side of that: if too much regulation takes place of training done by NGOs, farmers groups, and others, there is a potential that you might discourage these sorts of activities. Linkages between formal and informal ATVET need to be considered very carefully.

- 8. Engaging private sector:** ATVET private sector linkages are weak not only because of a generalized public sector culture, but also because the private sector is not well developed in SSA agriculture and financing/incentives for such collaboration are weak.

Promote a wider concept of the “private sector” as potential labour market, giving more attention to the self-employed in small farms and micro-enterprises, to farmer organizations and producer groups.

Most people think of the private sector as the employing sector. What came across in one Ethiopian study is that only 4% of those considered as employed in the agricultural sector are actually in formal, paid employment. The assumption that everyone is working in the private sector is a dangerous one.

- 9. Moving online:** Covid-19 is leading to promotion of online or blended learning. ATVETs lack infrastructure and equipment. Instructors lack skills. Students are not accustomed to self-directed learning.

Develop African-led or bi-continental blended learning platforms to support CBET, and ATVET instructors capable of utilizing these, while carefully integrating with national curricula development processes, and necessary accreditation procedures.

Although the need to move online is clear and although it sounds simple, most ATVET lack the infrastructure, etc. for this. Needs to be a lot of attention to how to regulate online learning programmes. This is not going to be easy; it is going to take many years before being able to do this effectively.

- 10. Future funding:** TVET has received increased attention in recent years (national governments, international development partners) - but budgets are likely to come under more pressure in the future.

Provide skills development (challenge) funds in priority areas for development, on a competitive basis to private companies, NGOs, farmer organizations. Encourage these to work with ATVET organizations, including opportunities for trainees to gain practical experience.

One study estimated that the funding gap for primary education in Africa has grown to about 140 billion this year. In the last few years, TVET has been somewhat favoured in terms of funding compared to primary and university education, but in the future, budgets are likely to be squeezed within ministries of education in Africa. Somebody will have to make some very tough choices whether to put that money in primary, secondary, university or TVET education. We need to be

mindful of this and think of innovative ways to fund ATVET in coming years. One way is through skills funds, which can be channelled through private companies, to involve them more in TVET.

11. International networking: Support to ATVET in SSA by national/international agencies is generally uncoordinated - limited mutual learning between programmes and countries.

Create and/or support an international ATVET network to create a shared vision of ATVET strategy and CBET in agri-food systems and improve exchange of experience and mutual learning between countries, programmes, and projects.

As Eusebius emphasised; we need a way to share our experiences and lessons learned between countries if we are to move forward quickly.

Recap by Frans Verberne:

Richard started off by pointing out the gap between policy and implementation. I think all of the other propositions/recommendations are really interesting leverage points to be able to accelerate TVET. He has been trying on the basis of his expertise to point out which leverage points are important for changing the TVET infrastructure.

Four break-out sessions

During the break-out sessions we will zoom in on four (those in bold) out of the 9 case studies, each link to different dimensions and environments of ATVET, i.e. extension, private sector, universities and government policies:

1. Integrating ATVET teaching and practice with local stakeholders at Bure Agricultural Polytechnic College, Ethiopia
2. Need-Based Curriculum Development: Training of TVET Instructors in Agro-Processing in Ethiopia by the Federal TVET Institute
3. **Linking ATVET to value chain development: collaboration between Holeta and Maichew Colleges and the HortiLIFE project in Ethiopia**
4. **Moving from theory-based to competency-based practice at Agricultural Colleges in Ghana**
5. Developing a competence-based curriculum at the Dairy Training Institute, Kenya
6. **The Latia Resource Foundation – combining non-profit and for profit ATVET activities, Kenya**
7. **ATVETs under a university umbrella: The Division of Agricultural Colleges at Ahmadu Bello University, Nigeria**
8. The Leventis Foundation Agricultural School in Kano, Nigeria

Break-out session 1: Kenya (Latia) - links ATVET and private sector

Introduction by Ann Macharia, Training Manager at Latia Agripreneurship Institute / Latia Agribusiness Solutions Kenya and Mary Mwaura of the Latia Resource Foundation.

Summary

This case provides a detailed and more extended description of the establishment of Latia Resource Centre as non-profit organisation in 2008, its devolvement into a social enterprise in 2011, the establishment of the Latia Agripreneurship Institute (LAI) in 2016 and the formation of a new for-profit subsidiary company,

Latia Agribusiness Solutions (LAS), starting in 2017. The LRC Foundation fundraises and manages projects, with LAS as the implementing partner. The non-profit LRC and for-profit LAS have project-specific implementation agreements that focus on their common areas. In the paper, the focus is on combining non-profit and for profit ATVET activities, their different mandates and roles are explained.

Relating to the private sector:

- It assists us with labour market needs analysis, which helps us to improve our training methodology in line with the current market needs. This helps us to prepare our graduates depending on the needs of the market.
- They employ our graduates.
- They purchase our produce, which students produce in the farm, through contract farming.
- We train their employees, provide expert quality training, etc.

Relating to universities:

- They assist in capacity building of staff, especially in pedagogic skills.
- We train their graduates on the practical's under apprenticeship and link them with employment opportunities.

Relating to government institutions:

- e.g. TVET-CDACC, KNQA, NITA, county governments, national government ministries, etc.
- LAI is accredited by TVETA and NITA
- As a private institution we also follow all the processes for accreditation set by the government.
- We work together with TVET-CDACC in assessment of our graduates.
- LAI is licensed to assess in Horticulture Production and Agripreneurship by TVET CDACC.
- We develop curricula together with TVET-CDACC and NITA.
- However, there are challenges caused by bureaucracy. Processes take too long.

Discussion

Question: How is financing done in percentiles by donors, private sector, etc? Can you give an idea?

Answer: When we started, we depended on grants. Then being a private business, shareholders put money in the business. We have targets on how many farms we manage, on the profit we get versus the grant. Currently, due to COVID-19, the business is down. Right now, 70-80% is on grants and 30-20% on farm management. But by next year we should be back on track with 50-50% or 40-60%. Although we started on grants, the farm management way of business is definitely bringing more money and resources to manage the institution.

Question: How do you build capacity for your trainers? How are they certified?

Answer: LRC being the non-profit side, when we get grants to work with Latia, we make sure we have room for capacity building aspect for the trainees. Annually, we do assessments to identify and fill training gaps. When we are recruiting, we recruit for specific skills needed. We also participate in other consortia and projects, from which we benefit and enlarge our experience, such as a NUFFIC project on teachers training.

Question: Do universities accept you as co-examiners of their students who do internships?

Answer: Yes, we have an agreement with Egerton University, whereby their graduates come for the practical training at Latia. Currently we are working on a programme, in which people graduate without a diploma (non-formal education) they can now start joining formal degree organisation at Egerton.

Question: Could you clarify whether the Dutch horticulture sector companies (who were part of the initiative, from the start) played a role in Latia? What role do you see for international private sector players in the future, in particular also with regards to scaling?

Answer:

- International NGOs, and especially NUFFIC, MSM, but also universities, among many partners, play a big part. When we started, we did not have equipment or resources, so they supported us by buying equipment, e.g. green house technology, providing resources for policy implementation and staff development training.
- Connections for markets for export. E.g. some farmers, through Dutch companies, were taken to the Netherlands to market their produce and make good money. As a for-profit organisation, we benefited by learning from such aspects.
- Also, our trainees were taken for trainings to the Netherlands annually, to learn about various technologies. Various exposure visits put us on the map. For training in horticulture we are currently the best in Kenya. For example, we are working with Delphi, a Dutch Company. Their technology assists us to make sure we are on top of our game.
- They also help us to learn about learning. Working with various European partners has helped us to improve our Competency Based Training (or apprenticeship).
- Research: Dutch universities have worked with us doing research, which has helped a lot. Specifically, we had a farmer telephone project. It was incubated together with MSM and many other Dutch partners and through a NUFFIC grant. This supported us to set up Latia and is driving us forward. It is success as it is still operational (considering that most companies collapse after one or two years).

Reflecting on the case in connection to Richards' Proposition 8 and proposed solution

Proposition: ATVET private sector linkages are weak not only because of a generalized public sector culture, but also because the private sector is not well developed in SSA agriculture and financing/incentives for such collaboration are weak.

Solution: Promote a wider concept of the "private sector" as potential labour market, giving more attention to the self-employed in small farms and micro-enterprises, to farmer organizations and producer groups.

Question 1: Very interesting proposition. It is indeed quite important, considering that in African countries 60-80% or even 90% is working in the informal sector as a self-employed person, for sure there is potential. But what does this mean in terms of providing access to these self-employed farmers? How accessible is this private ATVET for the poor and people from a rural background? If you open up what we refer to in terms of the private sector, obviously that has potential, but how do you deal with issues of access?

Answer Latia: We have grants as a non-profit to target and train communities and farmer organisations through short courses. E.g. currently training a Maasai community on poultry rearing, giving them start up kits, technical support and linking them to markets. That is how we support larger poor communities. We also have the apprenticeship scholarship to support the needy and vulnerable, those whose life can change through training. Since it is an agribusiness institute, the grant includes a start-up capital for inputs as well as technical support for about three months to help them start-up and assist them to sell their produce. That way, they can operate independently, and it has a big impact at household and community level. Also,

we support some graduates to become independent service providers, like entrepreneurs, to work in their communities as extension officers and provide service to the people.

Comment: The private sector in Kenya is quite informal. Looking at grassroots level at how farmers learn, this is often learning from neighbours. I see Latia is already at the formal level, it is a training institution. There is a myriad of farmers in Kenya that must learn every day, which happens in a private way, without involvement of the government even though there are projects organised by the government. I think there is a need to strengthen farm level training at that grassroots level. When individual farmers are trained well, they may be able to accommodate others, perhaps for a small fee. How to develop that private sector small initiative is still a challenge to private sector companies. That is an area we need to look into.

Response Latia: When we are working with communities, especially in rural areas where people may be illiterate, we make sure we hire someone who understands the local dialect. The dynamics are different, because they have their daily activities. We agree to meet with them about twice a week for training. Since it is Competency Based Education, we make sure it is practical through a farmer field school approach and a demonstration site. For example, demonstration sites for chicken rearing are open for everyone in the community to see. We also visit individual households to see what they are doing. Something which would take about a month at Latia, takes about a year in these communities, because of different understanding. But when they do, they progress. We make sure there are community leaders to continue the training themselves in their community after we leave.

Comment: The challenge is still how to reach the large number of poor farmers. Latia may not be able to reach out to all of them, as it is based in a certain region. While serving many farmers effectively, the scaling question remains. Some of the institutional recommendations of Richard apply to encourage cooperation between private institutions such as Latia and a number of other stakeholders in your environment. Similarly, it would need to be applied in different regions of Kenya. There you get into the complexity of how to do this at scale.

Question 2: From earlier discussions about targeting, a big issue related to targeting is the age element. Some suggestions were to best target the younger promising farmers, with a bit more education. But then the problem is that the village elites who are bypassed, cannot wait to destroy the project. How do you deal with this age element in targeting?

Answer: we have two approaches. When we are recruiting e.g. for the apprenticeship project, we target literate individuals, making sure they come from vulnerable groups. When working with the community with the mobilisation budget of the grant, we work with the chief who has to make sure we target the most vulnerable as he is also accountable to the county government. If he is dishonest, he can be reported to the county government. When implementing and visiting households, we can still deny households that do not qualify. It is quite intensive. To support that, we have policies and procedures to make sure everything is done well, e.g. when doing interviews for scholarships, we have a protocol and a committee ensuring impartiality. For us to achieve impact, they must come from vulnerable communities.

Question 3: While Latia's experience is scalable, which criteria are important for scaling? Are there similar experiences in Kenya or other African countries?

Answer: The biggest and number one criteria is space: you should have at least 20 acres of land (Latia is on 60 acres). Number two is capital: income and investment to buy equipment (e.g. calculating back, it cost us about 1 million dollar to buy the equipment), but also a water and irrigation system (capital), room for a classroom, security for the area, etc. We also have an inspection on quality control. You must be willing to participate and agree to the quality control measures. When you have that MoU agreement it goes well.

Break-out session 2: Ethiopia (SNV) – links between ATVET and extension

(Note/disclaimer: due to ICT issues, the two main presenters were only able to join at different times during the session. Therefore, the presentation was disjointed, and time for discussion was unfortunately limited).

Introduction by Merga Nagassa, Dean of Holeta Polytechnic College, and Fisahaye Abraha, Academic Vice-Dean of Maichew ATVET College.

Summary

The Horti-LIFE project In Ethiopia is funded by the Netherlands government and implemented by the Ethiopian government with the support of SNV. SNV provides support to a number of colleges, including Holeta and Maichew, which enables these colleges to provide practical training in horticulture to students and farmers, in line with government policy. Previously, such practical training was difficult, due to the shortage of resources and appropriate materials, the lack of improved technologies and the lack of technical training of instructors themselves.

A key activity introduced by Horti-LIFE are “student plots” on the college farms, which replicate commercial production plots of the main horticultural crops, and which are integrated into both regular and short-term training. Home garden technology, which can be easily applied in smaller plots and by a range of household types, has also been introduced. The Horti-LIFE project has donated seeds, water tanks, ICT equipment, sprayers, etc., allowing Holeta and Maichew to replicate commercial horticulture production. In the student plots, students follow the entire life cycle of horticultural production from land preparation to sale of produce. This enables them to establish their own horticultural enterprises after graduation, or makes them better extension instructors.

Discussion

Much of the discussion focussed on breaking down walls between the ATVET education and commercial production within the value chain. It was noted that such problems not only affect countries such as Ethiopia but are also common in some European countries (such as France). The role of NGOs such as SNV in breaching this gap was discussed.

Break-out session 3: Ghana (NUFFIC) – links ATVET and university

Introduction by Ishak Shaibu, Lecturer Kwadaso Agricultural College and Head of Department of Agribusiness and Economics.

The government of Ghana is using the Pre-Tertiary Education Bill of 2019 to ensure that all (A)TVET institutions move from theory to competency-based education. In this regard, Ghana institutions are partnering with CINOP, Q-Point and HAS (University of Applied Sciences) from the Netherlands for the Nuffic NICHE-GHA-270 project – Capacity Building of Four Agricultural Colleges. This Project has

successfully revised the curriculum of the Diploma program from theory-based to a more gender-sensitive, practical and competency-based education and training (CBET).

However, there exist a number of challenges to the full accomplishment of (A)TVET objectives namely: the need to wean the four project implementation colleges (Kwadaso, Damongo, Ejura and Ohawu) from being obliged to meet the requirements of the theory-based National Accreditation Board (NAB) and the University of Cape Coast (UCC), the accreditor and affiliated university, as well as the inclusion of the Council for TVET (COTVET) in the curriculum validation exercise but not its process. NAB's resistance to COTVET processes is under the guise that its approaches do not meet NAB standards. Inadequate facilities and systems for colleges have also been limiting. The absence of opportunities for Certificate level graduates who have undertaken a specific value chain course to qualify for the admissions requirements for the Diploma programme have also been problems. Additional efforts and support appear to be key solutions to these challenges.

Discussion

The main focus of discussion was on the efforts made and required towards the transformation of education from a theory-based to a more professional-based training system. Different members of the panel shared similar views as follows:

- Colleges produce more graduates than the government could employ.
- Training agriculture students towards becoming agripreneurs is a necessity.
- Modifying the curriculum by making it more competence-based and shifting the mode of assessment towards an evidence-based product development is important.
- Inclusive training of students as well as staff on seed-funding, fostering public-private relationships, promoting ICTs and gender-related topics.
- Recognising indigenous skills and competences is important as a starting point to succeed in changing to CBET.
- The best way to make gross linkages between institutions is by developing curriculum to accommodate tutors and making them recognise their own values.
- Room should also be given for CBET training to accommodate acquired competences.
- Funding is important and should be judiciously used.

Question 1: A harmonised approach involving all actors is good, but is this the solution to all the challenges you face?

Answer: If teachers like to teach, they will always want their students to do well. Teachers and students literally speak the same language, but the language of assessment has to change. That is the elephant in the room. Apart from building capacities of CBET teachers, there is need for the provision of equipment so trainees do not have half a piece of cake. The competency-based approach is best when teachers experience it themselves. Starting and building from where the teachers are is important. The importance of workshops and labs in and out of campus would ease tutors' simultaneous translation of acquired competences.

Question 2: What about the holistic approach in which politicians are involved?

Answer: Collaboration of partnerships within and between countries is key.

Shared challenges:

- There is inadequate time to train lecturers and thus having tutors in the driver seats is challenging.
- It is still a daunting task to create better perspectives to enable students to move up and into the sector.

Break-out session 4: Nigeria (DAC) – links ATVET and government policy

Introduction by Musa Abdullahi Mahadi, Professor of Agronomy at Ahmadu Bello University, Zaria, Nigeria

Key points from the presentation included:

- The Division of Agricultural Colleges (DAC) was created in 1972. The DAC comprises an amalgamation of 3 colleges, supported by Ahmadu Bello University. The Vice-Chancellor of the University serves as the Chairperson of the DAC.
- The TVETs remain under the Ministry of Agriculture, while the University is part of the Ministry of Education. Each type of institution maintains its mandate and therefore, can influence policy differently. Further, budget allocation is dependent on the mother ministry and there is no co-mingling of funds.
- The curriculum development of the Colleges is by the National Board for Technical Education (NBTE). This process is supported by universities which ensure quality assurance of curriculum.
- The association of the colleges with the university leads to better training quality of the colleges. The TVETS benefit from existing university infrastructure such as laboratories and other facilities. Additionally, the university trains TVET lecturers, who are able to progress to professorial positions in the university. On the other hand, TVETs support skills enhancement for university staff and provide opportunities for university students to have practical experience.
- In order to scale-up the DAC model in Nigeria, each university in the country should have a TVET attached to it.

Reporting back from sessions and concluding remarks

Members from the break-out sessions:

2 or 3 main points/conclusions from the discussion.

Kenya:

- A private sector organised entity like Latia has a lot of advantages: it can adapt to the current market needs very quickly; it's flexible; less bureaucracy; and is able to adapt quickly to new needs of the private sector, thanks to its entrepreneurial mindset.
- Topic of discussion was how to reach the vulnerable farms at a larger scale, which is also a huge challenge considering that many TVET trainings are focused on people who are educated and commercial farms etc. A few suggestions and experiences were shared to bridge that gap.

Ethiopia:

- Advantages can accrue from the collaboration between what you might call a development project or value chain project and ATVET. In this case both horticulture development and education in Ethiopia is supported by the Government and SNV in a major national project, with advantages to

both education and value chain development. Particularly to the ATVET, as the support to students has helped them achieve more practical education in line with the Ethiopian Government policy of 70% of TVET education being practical. This not only improved the efficiency of the practical nature of the training, but also made it much more attractive. Already, TVETs that are participating in this project are beginning to see more students applying, especially more women. The programme is seen as very attractive with the possibilities of becoming self-employed in horticultural production activities after graduating. We see it as a successful case study.

- Unfortunately, we did not have time to discuss more fully why this does not happen more in other countries? Why is this type of collaboration not more widespread?

Ghana:

- Tried to answer the question: how can agricultural colleges move more towards a practical, competency-based education, and how is this affected by the connections between colleges and universities? One of the main points from the discussion was that, apart from building capacities of TVET teachers, there is need for the provision and availability of equipment for trainees.
- Competency based approach is best when teachers experienced it themselves. Starting and building from where the teachers are is very important.
- The importance of workshops and labs in and out of campus is also important.
- The challenge remains enable students to on from a more practical education based on one value chain into a broader university education. This is a challenge and a question yet to be answered.

Nigeria:

- Discussed the relationship or linkage between universities and agricultural TVETs. Using the example of Nigeria, where Amhadu Bellow university is integrated with 3 agricultural TVETs.
- Since the University and the TVETs are linked, how does this linkage influence policy? In addressing this question, we discussed that these two operate as separate entities. The TVET is in the Ministry of Agriculture and the University is in the Ministry of Education. In the different ministries, each has its own mandate and therefore can influence policy. Also discussed was the issue of budget allocation. As both are funded by different ministries, there is no conflict as far as the budget is concerned. Models with integrated funding would make management and reporting easier.
- Potential mutual benefit to the relationship between the University and TVETs:
 - To the TVETs: the university plays the role of quality assurance in terms of curriculum development. Although the curriculum of the TVETs is developed by the National Board for Technical Education (NBTE), the University ensures that the curriculum quality is high. Therefore, the colleges that are in the DAC model, are expected to have better quality training.
 - To the University: the TVETs support skills enhancement for university lecturers and students.
 - Mutual benefit: the use of infrastructure (labs and other facilities for research and training) of the University supports training of TVET lecturers.
- To scale up this model in Nigeria, each of the TVETs could be attached to a university.

Concluding remarks

David van Kampen

- Richards's overview was an excellent start of the discussions and the break-out sessions, providing some thought provoking conclusions. One conclusion that I remember in particular: what about this individual - politician or policy officer - that needs to decide on funding and budgets for primary, secondary, TVET and higher education? Not an easy position to be in. Thank you for taking that holistic approach and looking at several levels of education.
- That holistic approach was also carried on into the break-out room I was in - on the Nigeria case. What stood out there for me, is collaboration and sharing infrastructure, influencing curriculum development, but also teacher capacity. How to influence teacher capacity both ways - practical and theoretical - by getting those levels of education together?
- Also for NUFFIC, collaboration and partnerships are key, not only within country borders, but also between countries. We really encourage TVET colleges to also seek their peers across the border and see how you can also influence policy and make sure that TVET is put on the agenda.
- Thanks for sharing this wisdom today, as NUFFIC we will try to pass this on to the Ministry as well.