



Kenya's Agri-Food and Nutrition Industry

The role of the Agricultural Technical Vocational Education and Training Institutions (ATVET)

Policy Messages

- ATVET graduates and in-service agrifood sector officers can meet the agricultural sector's skill requirements by regularly reviewing and updating curricula and continuing education programmes.
- Innovation in pedagogical approaches is crucial to ensuring effective knowledge dissemination to those who drive resilience building in a highly dynamic agrifood and nutrition systems.
- It is important to create and foster multi-stakeholder partnerships amongst key actors in the agriculture and food systems, as well as monitor and recommend regular changes in capacity development programmes.

Participating Panelists

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Kenya Vision 2030, along with other development strategies, identifies agriculture as a key sector for achieving the desired national 10% annual economic growth, as well as an integral means for producing an adequate supply of healthy and nutritious food (ASGTS, 2018). The sector currently makes up about 51% of Kenya's Gross Domestic Product (GDP) (26% directly and 25% indirectly) and accounts for over 65% of exports; it employs over 80% of Kenya's rural population and more than 40% of the total population (GoK, 2010; ASTGS, 2018).

Despite the fact that the agricultural sector contributes greatly to Kenya's local and national economies, it is yet to realize its full potential due to various socio-economic and climatic factors. One major gap lies in the lack of a competent skilled workforce to drive the transformation and growth of the agricultural industry. A successful skills training and development (T&D) program is vital for creating a qualified workforce and is a prerequisite for the country's socioeconomic growth.

Kenya Vision 2030 recognizes TVET's foundation in science, technology and innovation as an anchor for economic and industrial growth (GoK, 2009). Kenya's Agriculture Technical, Vocational and Educational Training (ATVET) institutions play a critical role in training the workforce needed in the agriculture sector. It is absolutely vital that these institutions position themselves in a manner that produce highly skilled workers capable of delivering innovative solutions to a struggling agri-food system.

Holistically training graduates can create a 'focus of change' in the sector. Developing, cultivating and sharing relevant knowledge, skills and attitudes will strengthen Kenya's strategy for achieving socioeconomic needs and expectations.

ATVET graduate skills not matching sector needs.

The desired change in training and producing such holistic, competent and highly skilled staff will require a paradigm shift that entails realigning and refocusing ATVET institutions' curricula and curricula delivery approaches towards experiential and practical training/learning incorporating the emerging needs of the agriculture industry.

Currently, there has been a major disconnect between the products of ATVET training (graduates) and research versus the requirements/needs of the agriculture sector industry.

Further, the rigid and unresponsive curriculum, inadequate methods of training and development needs assessment (T&DNA), lack of stakeholder involvement in curriculum design, inadequate numbers of specialized staff at the ATVET institutions, poor training methods, obsolete tools and insufficient equipment and political interference have hindered the effectiveness of the ATVET institutions (Nyariki and Amwata, 2020).

Where is the gap?

The resultant graduates of these institutions have been criticized as lacking critical skills required by the labor market including limited problem-solving capacity, entrepreneurial skills, and inability to innovate.

The consumers of ATVET graduates have often been forced to retrain them in order to impart the required skills for their operations.

The tutors in ATVET institutions who are tasked with training the desired human resource are themselves not well exposed and equipped with the desired curriculum delivery methods including modern pedagogical and trans-disciplinary approaches.

The described institutional challenges have been identified and some efforts have been made to address them. However, such efforts by governments and development partners have not realized the desired change or transformation. This is because the interventions/efforts have either been disjointed, non-complementary or lacked the requisite institutional support to achieve the desired goal.

What exactly is the sector demanding from ATVET graduates?

The transformation and growth in the agriculture sector requires competent and skilled staff to drive the desired transformation in the agriculture sector. Among the things, the industry is demanding are

- 1) Graduates who understand impacts of climate change on the sector systems and the use of climate information and services to co-design and implement appropriate responses.
- 2) Graduates who understand entire food systems and value chains and not just components and linear considerations.
- 3) Data-driven evidence from basic analyses and research to inform decision-making.

Commodity value chain actors recently witnessed a surge in the use of digital applications in accessing Agri-food market information, online payments, climate information services as well as plant and soil nutrition verifications—all these being tools any new graduates today should be conversant with.

Skills for the future

Graduates are expected to acquire certain skills as identified below; to be able to adapt to emerging trends in the future of agriculture.

- 1.) Graduates are expected to enhance their understanding of basic platforms including blockchain, artificial intelligence and internet of things upon which many emerging tools will run.
- 2.) Perhaps more demand that is important is emotional and social skills (encompassing soft skills, communication skills etc.) found lacking in an overwhelming proportion of graduates in general (Awiti et al. 2019).
- 3.) Graduates have also been found wanting in entrepreneurial skills, unable to create small businesses under the law, to harness numerous opportunities that are gradually emerging on various agrifood value chains with changing dietary patterns in urban areas.

All of these examples imply the need for a multi-stakeholder platform to regularly assess for changes in a highly dynamic agri-food sector, as well as advise training institutions accordingly.

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Which way forward for ATVETs?

To enhance the relevance of the ATVET in producing employable graduates for the agrifood industry, there is need for an adaptive capacity-building framework that will entail:

- a) *Curriculum reviews and updates*: ATVETs need to work with the Curriculum Development, Assessment and Certification Council (CDACC) to promote regular and periodic reviews of their existing curricula to incorporate the emerging aspects. Considering the prevailing circumstances, these include aspects of gender, climate change and climate-smart strategies, digital applications in production and food systems, data analytics and use of research evidence, as well as soft skills. Any TVET institution intending to upgrade its curriculum by integrating these features should consult further on the scope.
- b) *Pedagogical reforms*: The need to review modes of teaching is also critical, particularly how practical lessons and industrial internships are designed and implemented, aligning final-year student projects to the needs and opportunities along key agrifood value chains. Opportunities for co-mentorship with industry actors should also be explored. In-service programmes such as that at KTTC for TVET tutors need to be strengthened with the foregoing in mind.
- c) *Continuing education*: In-Service agriculture extension officials need reskilling and retooling through regular tailor-made trainings and short courses. ATVETs have an opportunity to be frontrunners in designing upgrade short courses based on the emerging features identified above.
- d) *Multi-Stakeholder Partnership*: The Capacity Development Strategy for the Agriculture Sector of 2017 as well as the ASTGS both emphasize the critical role of partnerships bringing together academic institutions, private sector, government agencies, civil society organisations and local communities. Such a partnership would inter alia regularly track changes in the sector and recommend updates to curricula.

References

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