Annex 4 - Mission Statement and Strategic Alignment

Call Institutional University Cooperation (IUC) 2022

1. The Mission of The Technical University of Kenya (TU-K)

The TU-K's Mission is to provide technological education and training and to contribute towards the advancement of society through research and innovation. Each department of the university has taken up the Mission seriously, and is engaged in lives-changing research, innovation and teaching. The departments' focus on the Mission of TU-K is to carry out training using live cases which directly impact on the communities at County level, and also undertake studies and research which, although having strong theoretical base, can easily be applied in the field. This is evident in the individual research projects undertaken by students and studio training projects.

2. Highlight of the TU-K Strategic Plan 2015-2020

The TU-K Strategic Plan 2015-2020[1] (also known as the Agenda 2020 of the University), is the current roadmap guiding the university's activities to be a regionally reputable technical university that focuses on technical training and education for the real world. The plan was prepared with the assumption that the Kenya economy would continue to grow steadily at 5.7% and above, as projected in the country's *Vision 2030*, thus enabling all public higher education institutions to have adequate funding for their plans. This assumption has however had challenges in the last three years as the real GDP growth dropped to 4.7% in 2016-2017[2], only rising back to 5.7% late 2018. That downturn in the national economy affected the funding to education and all other sectors, and TU-K as a young higher technical education institution with major demand for resources for expensive technology infrastructure and recruitment of high level manpower found itself on strained path. However, as the TU-K Strategic Plan 2015-2020 points out, the institution was to use various modalities for its funding, the major being Government of Kenya (GoK) support while internally generated resources, and partnerships with industry and internal partnerships have enabled the university to pursue its course, albeit with reduced rate.

3. Human Capacity at TU-K

As at 2015, TU-K had a student enrolment of 8,000, 51% being full time while 49% were part-time as the institution thrives in supporting industries to retool their capacities in science and technology. While at Charter stage TU-K had large number of staff at technology level, by 2015 it had picked some of the best scholars at professorial, senior lecturer and lecturer levels from some of the leading universities as many had the quest to work in the unique technical university. This trend has continued and as at June 2019, TU-K posed with a professorial complement of 47 in the various departments, most of whom are engaging in major science and technology researches and innovation.

Further, TU-K has taken up as its major strategic thrust the training of promising scholars into their masters and PhD programmes so as to build its capacity using the professorial staffing available. Much of these trainings and research are done in collaboration with other universities locally and abroad, so as to avoid fully in-bred staff. This requested Programme will constitute a major training ground for staff in the planning, design and the built environment in general.

4. Institutional financing scenario

The budget of TU-K in 2015-2016 and 2016-2017 was KES2.5billion[3], of which GoK provided 45% (mainly for recurrent expenditure), while student fees and other internally generated funds covered about 38%, with donor funding providing approximately 1% of the budget. During that financing period, the institution had a deficit of about 16% of its budget.

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[1] The Technical University of Kenya Strategic Plan 2015-2020

[2] This drop is associated with recurrent expenditures in protracted national elections that drained much of the resources that could have gone to the productive sectors.

[3] TU-K Annual Report 2015-2016.

Hence to close the gap in the deficit, the university used various austerity measures to manage the situation including: reduction of research and innovation activities and to some extent cost-sharing methods in teaching so that the students could meet more of the costs in their learning and training activities including their research materials, and field work funds.

During 2018-2019 financial periods the annual budget had risen to KES3.35billion, with GoK funding rising to 58%, while 40% was internally generated. The remaining 2% was covered by other sources including donors, and funded research and collaborating industries. Funding for research and innovation is still a challenge as the annual budget has been reduced so as to narrow the deficit in financing. This means that TU-K's major research activities are funded by external funding sources, and cost sharing with the researchers themselves. The desire to have this collaboration with IUC is therefore to increase availability of funds focused to research, teaching and academic staff capacity development.

5. TU-K's strategic excellence and international linkages

In the typical tradition of a university, TU-K has its strategic objectives in the broad areas of teaching, learning, research, consultancy, and community service. The institution has reorganized these strategic areas into three broad areas as follows: (i) academics and student affairs; (ii) administration and resource management; and (iii) institutional advancement and partnerships. As a unique public service organization, the institution must also provide specialized administrative support frameworks in the areas of financial and accounting services; student affairs and services; and business and enterprise services, hence any collaborations and linkages are managed as business where results and impact are measured progressively through all the quality assurance and governance structures of the institution.

TU-K is a new type of university in Kenya, whose mandate is to offer higher education and research in technology with the specific focus on the application of the knowledge. The creation of technical universities in Kenya aims at driving the general economic development of the nation towards the attainment of *Vision 2030* using technology. This concept is borrowed from empirical experiences in most technologically developed countries where universities play a central role in technology innovation and advancement. The Technical University of Kenya was established as one of the first universities of this type in Kenya and is expected to play a critical role in the country's industrialization process. To this end, linkages with other technologically advanced countries and universities of excellence would enhance the strategic focus of TU-K.

6. International Partnerships and linkages

The Technical University of Kenya has in recent times enhanced its International presence by establishing linkages with several institutions at the International level. There is active relationship with Politectnico di Milano in Italy, Dar-es-Salaam Institute of Technology in Tanzania, Catholic University Leuven, Belgium, among others. The University has maintained its membership of the Commonwealth Association of Polytechnics in Africa (CAPA) and continues to host its secretariat. It is a full member of the Association of Commonwealth Universities, the Inter University Council of East Africa and Global Energy Technology Network. The University also has active linkages with numerous international universities and other centres of excellence.

7. Strategic alignment of the Proposed Programme to TU-K

This proposed programme aligns with TU-K's growth and transformation strategic plan 2015-2020, whose main focus is development of high level human capital, enhancement of technology and research, and expansion of opportunities for training of the youth, and making them more employable. TU-K's strategic focus is also to spearhead the government's *Vision 2030* and the *Big Four Agenda* for development in the various sectors. In this regard, participating schools have embarked on training its current staff who do not have their PhD qualifications yet on research that is well targeted to the national strategy of expansion of manufacturing, food security, affordable housing and affordable healthcare. The proposed research Programme is also in line with the overall Kenya Government Strategy, *Vision 2030*, which highlights climate change concerns, water and infrastructure, and support to science and technology as other subsectors which are not picked in the *Big 4 Agenda* for the period 2018-2022 as these are all standing long-term development foci of the country and African region in general.

8. Alignment with the VLIR-UOS Kenya Strategy

VLIR-UOS' Kenya country strategy has earmarked various sectors that would constitute the main focus for collaboration in the 2020-2030 period. These are also the strategic areas for the *Kenya Vision 2030.* The main focus put forward for

universities in the Kenya Vision 2030, is to develop the necessary human resource base for achieving the goals of the vision. TU-K's strategy 2015-2020 picks three of these of the focus areas, namely;

- Natural resources management and development, including water resources, biodiversity, textile, oil and gas exploitation, and conservation.
- Food security, including food production (agriculture, aquaculture, animal husbandry), fisheries, food processing and marketing, and food safety.
- Cross-cutting themes which impact on all the other sectors such as: Information and communication technologies, networks and infrastructure; ICT in education, ICT in laboratory practice, virtual networks, ICT infrastructure, data analysis, and biostatistics.

TU-K considers that its role in the IUC programme would provide a strong footing on the side of technology enhancement in spatial and geodetic systems coverage which are critical for resource planning and management, food security productions systems through improved land management, urban systems planning which are critical for functional and healthy human settlements and improved mobility and networks which are critical for improved environmental management and hence reduction of climate change elements. Further, TU-K as technology and innovation centre of excellence has the role of strengthening the design and production of improved food handling systems, technologies for ICT based marketing systems especially for aquatic resources, and improved waste management systems which would reduce the effect of industrial activities on human settlements and climate change. It is envisaged that TU-K will collaborate with Jomo Kenyatta University of Agriculture and Technology (JKUAT), The University of Nairobi (UON), Commission for University Education (CUE), and Kenya Forest Research Institute (KEFRI) in areas where these institutions have already gained mileage in research, and innovation and systems development.