

# Ensuring transferability and sustainability of technical skills in natural resource-based industries – Kenya

## Background

Kenya's economy is about to experience a rapid expansion of infrastructure projects related to the exploration of natural resources, particularly oil and gas production and mining, which will require the construction of power plants, pipelines, ports and railways. The extractive industry's supply chain increasingly needs skilled labour, but also goods and services which meet international investor standards. This offers unprecedented opportunities for sustainable growth and employment.

However, Kenya's Technical Vocational Education and Training (TVET) system is not sufficiently demand-oriented and the local workforce cannot offer the skills required by the labour market. The extractive industry is therefore keen to play a greater role in setting standards, designing training curricula and promoting a more practical and less theoretical approach to training. In addition, teachers and trainers need to gain a better understanding of current trends in industrial technology and acquire technical skills to pass on to their students.

In cooperation with partners in Kenya, the E4D/SOGA initiative addresses these challenges by promoting internationally accredited competency-based education and training (CBET) for transferable skills. It also supports business development to make small and medium-sized enterprises more competitive and establishes partnerships with the private sector and training institutions.

## The E4D/SOGA – Employment and Skills for Eastern Africa Initiative at a glance

The E4D/SOGA – Employment and Skills for Eastern Africa initiative aims to promote local employment and reduce the local workforce's skills gap in and around natural resource-based industries and related sectors in Kenya, Mozambique, Tanzania and Uganda.

The initiative cooperates with key stakeholders for employment, including international and domestic companies, governments and local training providers, in its four target countries.

It is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), the UK Department for International Development (DFID), the Norwegian Agency for Development Cooperation (NORAD) and Shell. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is responsible for project implementation.

## Our partners

The Technical University of Kenya (TUK), which was founded in 1961 as the Kenya Polytechnic, was chartered in January 2013 as a public university. The Technical University of Mombasa (TUM), a public education institution located in the coastal city of Mombasa, is one of the National Polytechnics recently elevated to fully-fledged university status in Kenya.

Quoniam is an active quantitative asset manager with global reach. The PRI signatory manages a substantial portion of the assets socially responsible.



*"We are very happy that E4D/SOGA in cooperation with Oil Field Movers Ltd. provided professional training for us trainers. The training has been very extensive and rewarding and now we hope that we can pass our newly acquired skills and competencies onto the learners."*

*Quote from Heavy Machinery Trainers*



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Both universities partner with E4D/SOGA Kenya to promote market-oriented TVET. The private sector's crucial input will improve the provision and quality of vocational training with the aim of enhancing students' employability.

## Strategy and activities

Launched in March 2017, the pilot training programme consists of three month theory/practice training at each of the universities and three month industry based training. The training programmes are widely advertised by TUK & TUM. Marketing tools include radio commercials, media coverage, print and online publications, social media and participation in the national TVET conference 'Hands on the Future Skills Show'.

The programme's set-up ultimately provides graduates with better job opportunities and the industry with a better qualified workforce. The occupational standards and curricula are based on international benchmarks and have been adapted by experts from the industry and from the two universities. The curricula follows the globally applied Competence-based Education and Training (CBET) approach, which applies a modular mode of delivery allowing flexible entrance and exits, with specific entrance requirements at each level. Each module corresponds to a certain level of competence, which will be determined by the Kenya Qualification Framework.

In consultation with relevant stakeholders, an institutional needs assessment identified 5 satellite technical training institutions in the counties of Nairobi, Kiambu, Meru, Nyeri, Uasin Gishu to roll-out the CBET programmes, in cooperation with TUK and TUM, starting from June 2018.

- The technical universities will provide training in
  - Mechanical technology and maintenance, machine operation, diagnostics and repair of equipment
  - Welding, including manual arc welding, gas welding, TIG and MIG welding

- Instrumentation and control, including installing and servicing of PLCs, supervisory control and data acquisition systems, human-machine interfaces, distributed control systems, process analysers, standalone controllers, variable speed drives, pneumatic equipment and signal converters
- Operation of heavy machinery such as excavators, backhoes, bulldozers and graders
- Quoniam supports vulnerable youth, particularly women, that set out on a technical career path through sponsorship of the CBET training in selected technical occupations.

## Outcomes

In its two-year pilot period, the project will train 1000 people in the four occupational areas, and half of the graduates will find jobs. The curriculum of training courses in four selected occupations (heavy and light machinery, instrumentation and control, welding and mechanical technology) has been developed in cooperation with the private sector and approved by Kenya's government. The gap between the new Curricula and trainers' skills has been identified as a basis for the CBET training of TUK & TUM Master Trainers. 48 Master Trainers have been qualified in CBET curriculum development and methodology, including industry exposure, in order to be theoretically and practically equipped to deliver TVET programmes of a high standard. 150 instructors from 23 TTIs have been trained in CBET curriculum development. Currently, 120 students are undergoing training in the four occupations using the globally applied Competence-based Education and Training (CBET).



**Objective:** The local population is prepared and qualified for up-coming job opportunities through competency-based and demand-driven training

**Partners:** Technical University of Kenya, Technical University of Mombasa, Quoniam Asset Management GmbH

**Duration:** 2015 – 2019

Implemented by  
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As at March 2018

GIZ is responsible for the content of this publication.

On behalf of Federal Ministry for Economic Cooperation and Development (BMZ)

Jointly funded by

