

FUTURE OUTCOME

- World class CEMEREM programmes, facilities and qualified lecturers to sustain the training of resource engineers and managers in Africa.
- Attractive building for CEMEREM with offices, class rooms and laboratories.
- New fully equipped laboratories for teaching and research.
- Development of TTU staff in Germany through PhD and MSc programmes.
- Short training courses for engineers, resource managers and practitioners from the region.
- Bi-annual CEMEREM conferences on resource management with regional and international experts.
- Development of a strong partnership in the field of applied resource management between Germany and Kenya will have been established.
- Establishment of a CEMEREM concept to enable the region to benefit from natural resources through the development of human resources for creating wealth while sustaining the environment.



PARTNERS AND CONTACT

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German Academic Exchange Service



CEMEREM

Centre of Excellence for Mining, Environmental Engineering and Resource Management

Partners:

TTU Taita Taveta University, Kenya
TU Bergakademie Freiberg, Germany
University of Applied Sciences Dresden, Germany

Funded by:

DAAD German Academic Exchange Service

THE CENTRE OF EXCELLENCE

8th African-German centre of excellence

Joint project funded by the Federal Ministry of Foreign Affairs (Auswärtiges Amt) through DAAD between Taita Taveta University, Voi, Kenya (TTU), the University of Applied Sciences Dresden (HTWD) and TU Bergakademie Freiberg to develop at TTU a centre of excellence in mining, environmental engineering and resource management education and research. The centre will also promote scientific and cultural exchange between the project partners and industrial and governmental institutions in Kenya and Germany.

Specific Objectives

- Develop and improve curricula for new and existing academic programmes (B.Sc., M.Sc. and PhD)
- Educate and train a new generation of mining, process and environmental engineers and resource managers for industry and government
- Provide continuous education and training for engineers and managers in industry
- Educate and train teachers at TTU
- Network with industry and governments in the region in quality assurance for education and training and for research
- Integrate sustainability concepts (societal, environmental, spatial and economic) into the educational and implementation framework of the training, research and project activities.



TTU campus

CURRENT SITUATION IN KENYA

Kenya is a producer of soda ash (3rd world ranking), fluorspar (7th world ranking), titanium (11th world ranking), diatomite (21st world ranking), zircon (23th world ranking), kaolin (55th world ranking), gypsum and anhydrite (72d world ranking), salt (82d world ranking) and of gold and gem stones. The country has a potential for further mining development with discoveries of coal, oil, niobium and rare earth oxides. If these new rare earth oxides reserves are well exploited, Kenya could raise to the world top 5 producer countries. All in all, it is expected that the mining sector will increase its contribution to the GDP from the current 1 % to 6.5 %.

The development of the extractive sector is one of seven flagship projects within the manufacturing sector of the Economic Pillar of Kenya Vision 2030. CEMEREM intends to contribute to this through the supply of well-educated and trained engineers, managers and mining experts.

Contribution to new engineering courses

- BSc Mining and Mineral Processing Engineering
- MSc Mining Engineering
- MBA Natural Resource Management
- MSc Process Engineering
- BSc Environmental Engineering
- MSc Environmental Engineering
- PhD Mining Engineering
- PhD Process Engineering



Student excursion at a green garnet underground mine near Voi

ONGOING PROJECTS

- Installation of water quality laboratory
- Installation of soil mechanics laboratory
- Improving the quality of potable water at TTU campus
- Improvement of waste water treatment at TTU campus
- Pilot plant for biogas production
- Development of support and services for small scale mining communities
- Improvement of waste management



Students excursion at a titanium open pit mine (left), Mining lecturers from TTU visiting mining laboratories at TU Bergakademie Freiberg



Water quality check at a drinking water source for the region Voi, with new German on-site-parameter devices (left), TTU lab engineers visiting a German biogas plant near Freiberg