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Mitteilung zum Projekt

A Feasibility Study of Carbon Reduced Mobility Concepts in Nairobi

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Kenya is a country of vast beauty, a rich culture, a heritage to be proud of, strong values and great, innovative minds. Despite all that would make it easy to be proud as a young innovative Kenyan, there is unfortunately the lack of what most young innovative minds seek: opportunity.

Opportunity to share and pursue their ideas, opportunity to partner with like-minded innovative minds, opportunity to have their ideas challenged outside the normal scope and the opportunity to be exposed to more than what they are accustomed to.

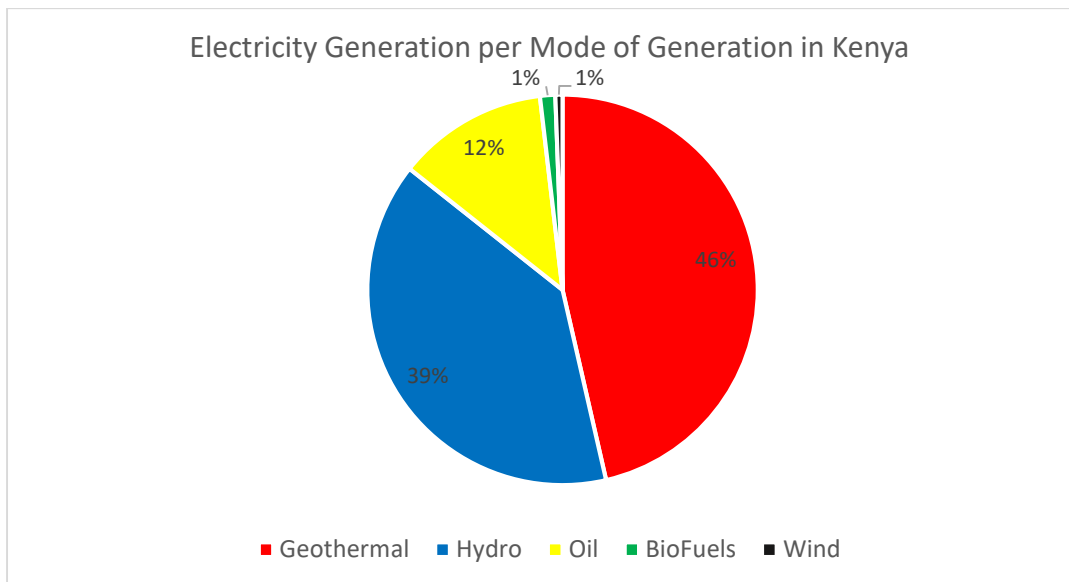
For this reason, the Konstanz University of Applied Sciences HTWG Konstanz, together with the DAAD Förderinitiative HAW.International would like to stretch its hand out to offer that kind of opportunity, that the young innovative students in Kenyan universities seek.

This includes participating in cooperative projects with students and faculty members of the Konstanz University of Applied Sciences HTWG Konstanz, attending virtual online classes that the HTWG Konstanz offers, and even exchange semesters where students attend lectures at the HTWG in person.

To commence this partnership, the HTWG would like to invite engineering students in Nairobi and faculty members to cooperate on its first project based in Nairobi:

The alternate mobility project, whereby sustainable mobility alternatives are investigated, with the aim of preserving the environment and human health. The main aim of the project will be to study the feasibility of reduced-emissions mobility concepts in Nairobi focusing mainly on the aspects: energy harnessing and distribution for mobility and market requirements identification.

The main sources of electricity generation in Kenya are geothermal and hydroelectric power, contributing to 46% and 39% of the total units of electricity generated annually. Though the country has a great potential for solar energy, less than 1% of electricity is generated through solar technology. Coal, gas, nuclear energy, solar thermal energy, tide energy and energy generated by waste have had no contribution to Kenya's electricity supply so far. In the following diagram, the energy generation per sector in Kenya is demonstrated. More than 3,121 tons of waste is produced in Nairobi per day, 51% of which is organic waste. This can be used to increase the production of biofuels, which can serve as an alternative, renewable source of energy



On the one hand, David will create new contacts for himself and the university in his home country through his study. Knowing his home country will make it possible for him to use these contacts to successfully complete his study and thus his bachelor thesis. As part of the Small International Project (SIP) at HTWG Konstanz, this is financially supported by the DAAD funding initiative. David will fly to Kenya on November 28th, 2020. The flight is CO2 neutral. Corona tests are carried out in the departure and arrival countries.

The project is led by Prof. Dr. Ditmar Ihlenburg HTWG Konstanz and Dipl.-Ing. Wolfgang Heisel, CEO of Steinbeis Consulting Center Frugal Innovation und Department Frugal-Campus, powered by said Steinbeis Consulting Center.

The goal is for David to complete an international bachelor thesis and for the faculty to be able to offer other students the opportunity to carry out such small international projects as students at the HTWG. For this purpose, the cooperation with the University of Nairobi and the Department of Mechanical Engineering is to be strengthened, in that in the near future projects with

students from the HTWG and the University of Nairobi can initially be carried out on a digital level as part of a lecture.

David writes his project work and his bachelor thesis on this topic. After completing his bachelor's thesis, he also plans to choose a master's degree at the HTWG Konstanz