

TFK programme, funded projects 2022

<p>Project title: Problem-based Pedagogies for Renewable Energy and Energy Efficiency Education in Lesotho</p>	
<p>Coordinator</p> <p>Turun yliopisto</p> <p>Osku Haapasaari osku.haapasaari@utu.fi</p>	<p>Access to modern energy services has direct implications on every aspect of sustainable development. Lesotho is one of the world's Least Developed Countries (LDC) where many households do not have access to electricity (less than 50% have access to electricity, roughly 10% in rural areas 2019). In the electrified areas, the demand for electricity is growing at a fast pace, but the supply has not been able to catch up. Lesotho has an abundance of techno-economically exploitable renewable energy resources such as hydro, solar and wind. Application of renewable energy resources and adoption of energy efficiency measures can provide sustainable energy solutions and reduce the effect of increasing energy demand on greenhouse gas emissions. One of the major barriers hindering sustainable energy use and production in Lesotho is the lack of knowledgeable and skillful human resources.</p>
<p>Partners</p> <p>National University of Lesotho, Aalto University</p>	<p>PROPEL is a collaboration project between the National University of Lesotho (NUL), University of Turku (UTU) and Aalto University (AU). The main objectives of PROPEL are to enhance internationalization activities between partner universities and to engage in capacity building at NUL to develop the quality of futures-resilient sustainable energy education through the training of trainers approach. The project enhances the skills and competences of HEI staff in sustainable energy production and consumption by focusing on problem-based learning, online learning, and blended learning methodologies. The project supports the NUL's MSc in Sustainable Energy programme and competences of NUL teaching staff to deliver high quality learning outcomes to students in both classroom and online environments.</p> <p>Project activities focus on</p> <p>(1) developing sustainable energy study content from a holistic perspective that incorporates supply and demand side considerations with a systemic lens;</p> <p>(2) improving pedagogical expertise for the provision of high-quality, problem-based and digital sustainable energy education; and</p>

(3) enhancing internationalization activities, enabling the formation of long-term partnerships between NUL, UTU and AU through student and staff mobilities, research collaboration and networking.

The project also aims to disseminate and promote thematic knowledge on sustainable energy to industry, public sector, and to civil society, building a foundation for long-lasting collaboration between all major stakeholders.

An overarching challenge that PROPEL addresses is the existential risk imposed by climate change. By promoting futures-resilient sustainable energy education in Lesotho and the internationalization between universities focusing on sustainable energy issues, the project addresses local educational needs, influences growth of green jobs in the sustainable energy sector and promotes mitigation responses to climate change.



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