



One of the geothermal wells drilled at Paka Hills in Silale, Baringo ©James Keogh for AFD

# Exploring geothermal power **beyond generation of electricity**

**T**echnical University of Denmark (DTU), Kenyatta University, the Geothermal Training Centre of Dedan Kimathi University of Technology, The University of Dar-Es-Salaam and a consortium of leading energy companies in Kenya, Denmark and Zambia have been awarded a research grant by the Ministry of Foreign Affairs of Denmark and administrated by **Danida Fellowship Centre** under the project **“Widespread Use Of Geothermal Energy in East Africa”**. The project coordinator and lead researcher is Prof. Fredrik Haglind of the Department of Mechanical Engineering, Technical University of Denmark (DTU). The KU team comprises of Eng. Elias Ako of the department of Energy Technology and Prof. Willis Ambusso of the department of Physics.

Whereas geothermal energy is known to be widespread along the East African Rift Valley, its exploitation as an environmentally friendly form of energy in the region is still limited to a relatively small area in Kenya. Furthermore exploitation of geothermal resources is limited to generation of electricity leaving out a host of other forms utilization of geothermal energy.

The research project aims to change this by developing and demonstrating novel technologies exploration, development and management of low to intermediate temperature geothermal resources for direct use (DU). Applications of these technologies will focus on smart

agriculture, industrial production and generation of electrical power. Working with the regional office of the **United Nations Environmental Programme (UNEP)** led by director Dr. Meseret Zemedkun, the team is expected to identify and develop efficient cost effective technologies that will boost food production in rural communities, generate electrical power to support industries that will lead to reduced emission of green-house gases while increasing the usage of geothermal resources as a renewable source energy in the region.

The overall project funding is DKK 11,999,757 (Danish Kroners), an equivalent of about Kshs. 250 Million. KU will receive DKK 4 million for purchase of research materials, publication and attendance of conference and support of two (2) PhD students.



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