IHE Delft is the largest international graduate water education facility in the world and is based in Delft, the Netherlands. The mission of IHE Delft is to work in partnership to strengthen capacity in the water sector, to achieve global sustainable development. IHE Delft has a permanent staff of 220 of which more than 140 are academics from all over the world, while about 250 guest lecturers from academia and industry contribute to our educational programmes. Each year 750 professionals (including about 200 new MSc students per year) from all over the world attend various water-related courses at IHE Delft. The Institute has an international staff & student community with English as the working language.

The Water Resources and Ecosystems Department conducts research and provides post-graduate education and training to professionals in the fields of water resources assessment and control, hydraulic engineering, hydrology/hydrogeology and various fields related to aquatic ecosystems. The department is organized into three scientific chair groups: 1) Hydrology and Water Resources, 2) Hydraulic Engineering – River Basin Development, and 3) Aquatic Ecosystems, each headed by a professor. We are now seeking

**Researcher position in Eco-hydrology**

**38 hours per week**

**Description and Responsibilities**

IHE Delft Institute for Water Education seeks a post-doctoral research associate to conduct hydrological studies in highland “water-tower” and lowland “rangeland” systems in Kenya and Ethiopia, as part of an EU DeSIRA programme-funded project, ESSA (Earth observation and environmental Sensing for climate-smart Sustainable Agro-pastoral ecosystem transformation in East Africa), with funding available for up to three years. Mountains as water-tower systems are important for water supply for drier lowlands, and in tropical systems, are often dependent on the fog-collecting capacity of native forest vegetation and rainfall recharge feeding springs and rivers. In East Africa, such systems are vital to the livelihoods of millions of people, supporting agroforestry and smallholder mixed-cropping systems on mountain-sides and livestock husbandry in the drier lowlands. These systems are under threat from land-use change and climate change, jeopardizing the sustainability of the livelihoods they support.

The role of IHE Delft in the ESSA project is to study the hydrology and water quality of two water-tower systems in Kenya and Ethiopia. (Site in Ethiopia is chosen with security and infrastructure support in mind, and evaluated over time accordingly.) Specifically, the post-doc will, through fieldwork, data collection and interpretation: i) establish conceptual models of highland-lowland and hydrology-land use interrelations; ii) compare the impact on the hydrology from land use (change) vs. climate (change/variability), as well as existing feedback mechanisms; and iii) evaluate different adaptive land and water management practices to compensate for hydrological changes due to land use and climate change in the water tower systems. The post-doc will also apply principles of hydrogeochemistry and isotope tracing to understanding surface-water ground-water interactions, and land use change impacts on water quality.

Activities will include mapping (land use, springs, infiltration and recharge areas); field work for studying groundwater/surface water hydrology (collection of meteorological data, spring/river discharge measurements, groundwater level measurements, water quality sampling); and water balance modelling (including for rangelands). The post-doc will be responsible for managing a field team comprising several MSc and PhD students in water-quality sampling in order to relate land-use and potential changes in hydrology and in modelling the land use and climate changes on hydrology.
Responsibilities:

1. Lead and conduct fieldwork in the installation and monitoring of several hydro-metological monitoring stations in Taita Hills (Kenya) and in Munessa (Ethiopia);
2. Provide leadership and organizational support for on-the-ground fieldwork, supporting PhD and MSc students in fieldwork involving hydrological and water quality sampling at the two intensive study sites and at two additional sites for comparison;
3. Basic laboratory work where needed;
4. Data analysis and interpretation, leading to the development of conceptual modes;
5. Publish 3 – 4 papers in international peer-reviewed journals.

Requirements:

- Originating from a developing country;
- Willingness to work in Kenya and the Netherlands;
- Proficiency in English and a track record of publishing international, peer-reviewed journals, or a high quality PhD thesis with papers submitted to peer-reviewed journals;
- Experience in hydrological fieldwork; experience in laboratory work is a plus;
- Willingness to support younger scientists and a collaborative attitude;
- Able to work in a multi-cultural environment.

Terms of employment

A competitive salary is offered depending on qualifications and experience in accordance with the conditions of employment for Dutch Universities.

The appointment implies entry into the Netherlands’ Civil Service Pension Fund (ABP). IHE Delft offers an attractive, multiple-choice employee benefits scheme, year-end bonus and generous pension scheme. We also offer 31 days leave based on a 38 hours working week. Candidates must be prepared to carry out short-term missions abroad.

Information and application

Additional information can be obtained from Gretchen Gettel, (g.gettel@un-ihe.org ) Senior Lecturer in Water resource Management.

Applications (in English) should respond specifically to the requirements and can be sent by **1 March 2022** including curriculum vitae, motivation letter and the names and contact details of two contactable referees (all together as one PDF file with your family name as the filename), to IHE Delft, attn. Human Resource Management (E: recruitment@un-ihe.org ), PO Box 3015, 2601 DA Delft, The Netherlands, stating vacancy-number 22-WRE-01.

By submitting your application for the vacancy of Researcher position in Eco-hydrology, you agree with the privacy statement below:
The personal data you share through your application file and other means will only be used by IHE Delft for the purpose of recruitment and selection process in order to evaluate your suitability for the vacancy for which you have applied, as well as for communication purposes related to the vacancy. IHE Delft will process your personal details in accordance with the EU General Data Protection Regulation of 25 May 2018. For more information we refer you to the privacy statement of IHE Delft: https://www.un-ihe.org/privacy-statement
Without your prior consent or other legal bases, no information will be shared with third parties. For further questions please contact our Data Protection Officer at dpo@un-ihe.org