ADVERT: UCT-CSAG, UFH-RAVAC & WITS MASTERS AND PHD BURSARIES IN (A) climate science and data analysis; (B) climate change engagement (perceptions, behaviour change, communication); (C) risk, vulnerability and adaptation.

Closing date: 12 March 2021. Applications received after the closing date will only be considered if the position has not been filled.

The Climate System Analysis Group at the University of Cape Town (www.csag.uct.ac.za), the Risk and Vulnerability Science Centre at the University of Fort Hare (www.ufh.ac.za/centres/rvsc) and the Department of Psychology at the University of the Witwatersrand (www.wits.ac.za/shcd/psychology) are offering Masters and PhD bursaries to support a National Research Foundation (NRF) funded project entitled "Engaging South African farmers on climate variability and change through the use of climate services: a behaviour change approach".

The overall aim of the research project is to gain an understanding of how behaviour change strategies can be employed to change climate-related behaviours (uptake and use of climate services in agricultural decision-making and related implementation of adaptation options) among farming communities in the developing world in order to promote more effective responses to the impacts of climate change while achieving more sustainable agricultural growth and development. The climate services focused upon in this project consist of seasonal forecast products. The research will focus on two case study sites, the Western Cape Province and the Raymond Mhlaba Local Municipality in the Eastern Cape Province.

Candidates are sought to conduct a range of different activities:

(A) establishing retrospective seasonal forecast probabilities, uncertainties, and skill measures as well as retrospective trend detection analysis linking event probability to long-term climate trends and projections.

(B) Investigating farmer decision-making contexts, including their current and potential use of seasonal forecasts, and the barriers and enablers to their use of seasonal forecasts; testing farmer preferences for different designs of seasonal forecasts and communication channels.

(C) Establishing local climate variability risk, vulnerability and adaptation in the case study sites, as well as the socio-economic context.

The successful candidates will form part of an inter-disciplinary research team from the University of Cape Town (Dr. Lorena Pasquini, Anna Steynor, Dr. Christopher Jack, Dr. Olivier Crespo, Dr. Peter Johnston), University of Fort Hare (Dr. Leocadia Zhou, Jabulile Manyike) and the University of the Witwatersrand (Prof. Andrew Thatcher, Dr. Sifiso Mlilo).

Experience and skill criteria:

- Experience in one of the following fields:
  - Physical climate science and climate data analysis **(for activity A above).** Successful candidates will be required to analyse various climate datasets including historical observations, seasonal forecast model outputs, and climate model outputs, and produce relevant statistics, visualisations, and interpretations. Familiarity with relevant software, preferably R or Python scripting is highly advantageous.
  - Decision-making analyses, climate change/risk perceptions, behaviour change, psychology or relevant social science **(for activity B above)**. See below for skill requirements.
  - Risk, vulnerability and adaptation **(for activity C above)**. See below for skills requirements.
  - For both **activity B & C**, successful candidates will be required to design survey questionnaires and analyse the data and/or conduct and analyse qualitative interviews and farmer engagements. Hence, applicants need to have experience with quantitative data

collection methods and analysis (including statistical analysis and software platforms for statistical analysis, such as SPSS), or experience with/willingness to learn qualitative data collection methods and analysis.
- Excellent organizational capability and ability to work under pressure and meet deadlines.
- Good written and verbal communication skills in English.

Specific requirements for NRF funding

- While bursaries are provided by the project for 2021 (see value below), the NRF requires students to apply to their Call for Postgraduate Scholarships in successive years. The NRF **minimum academic requirement** for postgraduate funding is **65%** mark in the final year of study. Applicants for masters and doctoral funding must be **30 and 32 years of age** (or younger) respectively in the year of application, and have completed their honours or masters in one or two years respectively. Successful applicants will be funded either at **Full Cost of Study (FCS)** or **Partial Cost of Study (PCS)**. The FCS funding will be awarded to South African citizens and permanent residents only, who are either **financially needy** (i.e., those whose combined household family income is less or equal to R350,000 per annum), **living with a disability** or **exceptional academic achievers** (i.e. minimum 75% mark in final year of study). The PCS funding will be awarded to 5% of international students and to South African citizens and permanent residents who could not be funded under FCS but meet other minimum requirements for the NRF scholarship funding criteria.

Value:

- The full-cost value of the bursary is R90,000 for masters and R120,000 for PhD, respectively, in 2021. In 2022, the NRF Postgraduate Scholarship values will apply (https://www.nrf.ac.za/sites/default/files/NRF%20Postgraduate%20Scholarships%20Application%20and%20Funding%20Framework%202021.pdf for more information)

Conditions of award:

- We seek particularly to attract black (i.e. African, Coloured and Indian) South African candidates (citizens and permanent residents).
- The successful applicant will be required to apply for postgraduate studies to the relevant institution, and will be expected to commence no later than **June/July 2021**.
- Successful applicants will be based at the University of Cape Town, the University of Fort Hare or the University of the Witwatersrand.

Application requirements:

Applicants should submit, *combined into a single PDF*: (i) a cover letter that includes a short description of their experience and research interests, and how these relate to the position; (ii) a CV; (iii) copies of academic transcripts and certificates; and (iv) email addresses of at least two references who have been directly involved in their previous postgraduate studies. Additionally they should submit proof of experience in the relevant field, e.g. thesis (this document can be submitted separately, it need not be combined into a PDF with the other documents). Applications should be submitted to the following email address: L.Pasquini@uct.ac.za.

Selection process:

- Only eligible and complete applications will be considered by the selection committee.
- Interviews of short-listed candidates are likely to take place in **March 2021**. If you have not heard within one month of the deadline, please assume your application has been unsuccessful.

Contact details for enquires about the project and applications: Dr. Lorena Pasquini, lorena.pasquini@gmail.com; Dr. Leocadia Zhou lzhou@ufh.ac.za (for UFH-specific enquiries).