

Job description Ph.D. Candidate Chile

We are looking for a motivated candidate (“The Candidate”) to work on the research project “AgriH2OCE” on sustainable soil and water management in irrigated agriculture in Central Chile. The project is sponsored by the German Ministry of Education and Research (BMBF) in the frame of a German-Chilean research cooperation established between the Universities of Siegen (Germany), the Pontificia Universidad Católica de Valparaíso (PUCV), and the University of Talca. Aim of the project is to study the interaction of soil and water resources at two test sites in Central Chile characterized by intense irrigated agriculture, and to analyse the impact of future land-use change, agricultural practices and climate change on soil resources.

The successful Candidate will be based at the Faculty of Agriculture and Foods Sciences PUCV, and work under direct supervision of Prof. Paolo Reggiani (University of Siegen), Prof. Carlos Huenchuleo (PUCV) and Prof. Pablo Villalobos (University of Talca). The candidate is responsible for the delivery of results of the work package “soil and landuse” of the project AgriH2OCE and will be requested to perform field analysis to evaluate ongoing surface erosion processes for local soil and climatic conditions and common agricultural practices for fruit production. The Candidate is also requested to familiarize him/herself with the quantification and numerical modeling of soil erosion processes. The use of numerical models for the simulation of surface water and sediment transport processes constitutes integrating part of his duty. Willingness of the Candidate to deploy and handle monitoring field equipment is considered an advantage.

The work of the Candidate will be closely linked to the activities of a counterpart researcher based in Siegen, Germany, and whose task is to study the hydrological cycle in the target region within the work package “modeling water supply and demand scenarios as well as water quality” of the project. In this context the Candidate is expected to possess good communicate skills in spoken and written English and to be able to work in a team. International travel from Chile to Germany as well as the attendance of international conferences is expected at least once per year. Scientific publishing in highly-ranked scientific journals is regarded as integrating part of the research outcome.

The Candidate will be enrolled in the PhD program “Doctorado en Ciencias Agroalimentarias” at Faculty of Agriculture and Foods Sciences PUCV. Special requirements for the PhD program can be found at <http://agronomia.ucv.cl/?p=5594>.

Duty station: Quillota/Talca

Remuneration: The remuneration is according to PhD salary scale adopted at PUCV.

Other preferable skills: familiarity with ARCGIS or QGIS, MS DOS and/or Linux operating system knowledge, use of either “R” or “Matlab” software, knowledge of Python.

Project duration: 36 months, starting on the 1st of September 2017.