

PhD Scholarship - Sustainable Agriculture

The University of Tasmania (UTAS) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia are seeking a highly motivated and dynamic PhD candidate to conduct research on the benefits and limits of diversity and diversification in agricultural systems in Australia and internationally.

The PhD candidature runs for a minimum duration of two years and a maximum of four years full-time. The PhD candidate will join the [Centre for Agricultural Systems](#) at UTAS and the [Global Food and Nutrition Security](#) group at CSIRO and will be supervised by Dr Peat Leith at UTAS, Dr Katharina Waha at CSIRO and Dr Jonathan Ojeda at UTAS. The position is based in Brisbane, Queensland.

The Research Project - diversity in agricultural systems

Ecological and ecosystem theory explains how diversity enhances ecosystem functioning and stability but it is unclear to what extent the same applies to managed agricultural systems. To what extent can the productivity, profitability and sustainability of agricultural systems in Australia and globally benefit from being diverse? In the face of climate change, are more diverse systems more resilient?

The proposed research could include a range of approaches using agricultural, environmental, socio-economic, and institutional and/or governance data. The project will work across multiple scales from household, village, landscape potentially to a global level. Research methods could include statistical modelling, geospatial analysis, pooling and synthesis of secondary research data, literature reviews, institutional analysis and time series analysis. Case studies represent different intensification levels of agricultural systems e.g. extensive and intensive and different strategies for managing them e.g. for profit, for food security, for low environmental impacts with a focus on cropping and mixed crop-livestock systems. Types of diversity studied can include crop diversity, farming diversity, production diversity, agro-ecological diversity and livelihood diversity.

Eligibility

Applicants must fulfil the PhD admission criteria for a Doctor of Philosophy degree at the University of Tasmania. Please refer to the [Entry Requirements](#).

The following eligibility criteria apply to this scholarship:

- The scholarship is open to Australian and New Zealand (domestic) candidates and to International candidates.
- Research must be undertaken on a full-time basis.

- Applicants must already have been awarded a first-class Honours degree or hold equivalent qualifications through a relevant Masters degree or relevant and substantial research experience in an appropriate sector.
- Applicants must be able to demonstrate strong research and analytical skills.
- Ability to demonstrate good English language skills, e.g. by achieving an IELTS test score of at least 6.5 or a Council of Europe level (CEFR) of C1

Valued attributes in applicants include:

- Independence and critical thinking
- Self-motivation to learn new scientific methods
- Ability to work under limited supervision
- Aptitude to work on research questions that are interdisciplinary in nature

Candidates from a variety of disciplinary backgrounds are encouraged to apply. The following backgrounds will be ranked highly:

- Environmental Sciences
- Sustainability Science
- Agricultural Science
- Environmental Management and Planning
- Geography and Spatial Analysis
- ...or a discipline closely related to the above

Specific knowledge and skills that will be ranked highly include:

- Data processing and statistical modelling in R
- Quantitative bio-physical or bio-economic modelling skills
- Process-based or statistical modelling of farming systems
- Qualitative methods for agricultural policy, social and institution research
- Knowledge of global change processes related to agriculture
- Knowledge of farming systems in the sub-tropics and tropics
- Knowledge of climate risk management strategies on the farming system scale

Remuneration

The successful candidate will receive a tax-free scholarship / stipend of AUD \$27,000 per annum, and an additional grant of AUD \$9,000 per annum for participating in international conferences, summer schools or relevant courses.

Contact & application

To discuss the position, please contact Dr Peat Leith (Peat.Leith@utas.edu.au) or Dr Katharina Waha (katharina.waha@csiro.au). **Please submit your application (max. 3 pages CV, max. 2 pages cover letter in which you refer to the requirements specified above and explain your motivation for doing a PhD in this area) via email in a single PDF file to Peat.Leith@utas.edu.au. Please use “PhD Sustainable Agriculture” in the subject line.**

Closing Date

18 October 2018 or until the position is filled.