

ONE BASIN CRC PhD program

Are you looking at developing world-leading skills in helping communities tackle climate change, capitalise on the digital transformation and accelerate rural innovation? Are you interested in receiving training from internationally renowned experts, whilst working with industry partners in the iconic Murray-Darling Basin on real-world problems?

The One Basin Cooperative Research Centre (One Basin CRC) offers attractive PhD packages in a broad range of disciplinary fields and across multiple universities in Australia (Australian National University, Charles Sturt University, Flinders University, The University of Adelaide, The University of Melbourne, The University of Sydney). Our PhD graduates will be the future leaders in basin research and application. Our One Basin PhD program provides unprecedented leadership development opportunities, extensive industry networking, and the chance to establish a deep understanding of your chosen field. Key features of the One Basin CRC PhD Program are:

- A 3.5 year scholarship with the option of a 6 month-funded internship with an industry partner or equivalent part-time employment.
- A flexible funding package including a stipend as much as \$51,300 pa* and generous travel and operational costs, with potential additional income from working part-time with industry partners and further scholarship funding.
- The PhD program seeks to achieve gender balance and attract candidates from all walks of life, with Australians of Indigenous and Torres Strait Islander heritage particularly encouraged to apply.
- Opportunities for travel (including the possibility of international conferences), development and engagement with a strong research network that is being developed through the 10-year CRC.
- Each candidate will spend the majority of their time in one of the following research hubs: Loxton (South Australia), Mildura (Victoria), Griffith (NSW) and Goondiwindi (Queensland) with associated node in Narrabri (NSW).

Our PhD program will give you the professional skills and networks to accelerate your career in research or practice across the water, agriculture or environmental sectors.

** This is dependent on the host university policies, other available co-funding, and candidature experience and background. Candidates will receive a minimum stipend of \$35,000 pa and a further minimum \$20,500 (total) in operational funding. The exact allocation of the funding package between the stipend and support activities (such as conferences, travel to and from regional hubs) will be agreed to by the host university, PhD student and the 1BCRC. Applicants must be intending to apply for, and be highly competitive for, a Research Training Program (RTP) Stipend (or an equivalent scholarship). The student will enter the PhD program in 2024 and enrol on a full-time basis.*

An aerial photograph showing a winding river through a wetland area with green vegetation and brown earth.

Apply via: onebasin.com.au/phd-programs

PhD project ID: 1BPhD23-10

Date advertised: 8 September 2023

PhD project title:

Multilevel network approaches to incentivise sustainable adaptation in the Murray Darling Basin

Description of the topic of PhD project:

The aim of the PhD project is to explore ways to leverage landholder and institutional networks to better target intervention programs and policies towards farmers' adaptation to the future in the Basin with less water. The project will build on the supervisors' multidisciplinary expertise in network science (Matous, USyd), human geography (Rebecca Cross) and economic incentives (Pawsey, CSU). There is a well-established and growing body of evidence on the influence of farmers' social networks on their decisions to adopt or avoid recommended adaptation actions. It is well known that farmers do not make decisions or respond to policies in isolation (even in cases when cooperation or coordination beyond individual farms is not explicitly required). Farmer-to-farmer networks can reinforce or block interventions coming from higher institutional levels. There is also clear but rather narrow evidence of the positive impacts of incentives in agricultural sustainability transitions. Meanwhile, research in other domains has shown that monetary incentives can sometimes crowd out desirable social mechanisms that otherwise support pro-social and pro-environmental behaviours. Mistargeting of adaptation programs can also create conflict and backfire. Including relational considerations (and explicitly multilevel networks of pre-existing relationships between farmers and institutions) into agricultural incentive research and extension practice will help to inform climate adaptation interventions, increase their chances to organically scale up, and decrease the risk of going against or even breaking the social fabric of impacted communities.

Primary university supervisor(s):

Associate Professor Petr Matous (Faculty of Engineering, University of Sydney)

Co-supervisors:

Dr. Rebecca Cross (Faculty of Science, University of Sydney), Dr. Nicholas Pawsey (Charles Sturt University)

Requisite qualifications and experience:

Candidates with Masters or honours degrees with components of network research, computational social science, or agricultural economics, or with cognate research or work experience will be favourably considered.

To determine your eligibility for studying at The University of Sydney see:

<https://www.sydney.edu.au/study/how-to-apply/postgraduate-research.html>

1BCRC industry partner(s) potentially involved:

Australian Wine Research Institute