WESTERN AUSTRALIA Centre for Environmental Economics & Policy Land & Natural Hazards CAPABILITY STATEMENT

THE UNIVERSITY OF

UWA's Centre for Environmental Economics and Policy addresses complex, multi-faceted environmental problems through quality multidisciplinary research, engagement and training.

Our Centre specialises in providing socio-economic research and policy analysis, including for: natural resources management, effects of climate change on agriculture, agriculture practices, land degradation and salinity, natural hazard management, mine rehabilitation. Our work aims to inform policy and provide evidence through economic analysis, including prioritisation and community values.



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WHY CHOOSE US?

- We have established collaborations with researchers from leading universities and partnerships with research institutes.
- 2. We have more than 20 years' experience working on nationally funded research programs, industry projects and providing consulting services.
- Our internationally recognised experts can support your organisation by:
 - a. Conducting quality research, policy analysis and state-of-the-art bio-economic modelling
 - b. Developing and applying economic tools and frameworks to improve decision-making processes
 - c. Delivering customised training and activities to build capacity among your staff and key stakeholders.

SKILLS AND SERVICES

- Interdisciplinary research
- Bio-economic modelling of environmental issues
- Economic evaluation, investment choice and prioritisation frameworks
- Design and evaluation of environmental policies
- Valuation of non-market benefits, and conducting benefit transfer
- Informing adoption of environmental practices
- Environmental decision support tools
- Business case development/Benefit Cost Analysis
- Questionnaire/survey design and analysis
- Focus group facilitation & semi-structured interview techniques
- Multi-stakeholder project management
- Tailored training packages, including workshops and knowledge-sharing activities



OUR PARTNERSHIPS

- UWA Institute of Agriculture
- Australian Farm Institute
- Australian Research Council
- Bushfires & Natural Hazards CRC
- NESP Northern Australian Environmental Resources
- ACIAR
- Grains Research & Development Corporation
- WA Department of Primary Industries & Regional Development
- Australian Department of Agriculture, Water & the Environment
- WA Department of Fire & Emergency Services

OUR PEOPLE

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Our centre consists of highly qualified academic staff, senior research fellows and postgraduate research students. Our Land & Natural Hazards Team is led by:

PROFESSOR DAVID PANNELL

Prof. Pannell is an agricultural and environmental economist who specialises in economic evaluation, risk, prioritisation and policy analysis. He is a prolific researcher, recognised with several awards, and has supervised 30+ PhD students to completion. He collaborates with a wide variety of industry & government organisations to help them improve their planning and decision-making processes.

DR VERONIQUE FLOREC

Dr Florec's research focuses on improving the management of our natural environment through multidisciplinary projects that combine social, environmental and economic information. She develops economic tools and industry training packages that improve the management of our natural resources and reduce the risk of natural hazards to humans and the environment.

RECENT OUTPUTS

- ADOPT a tool to evaluate and predict the likely level of adoption and diffusion of specific agricultural innovations. <u>https://adopt.csiro.au/</u>
- 'EAST' benefit-cost analysis screening tool and the 'Value Tool for Natural Hazards' for prioritising investment in mitigation of natural hazards, designed for Bushfire and Natural Hazards CRC partners. Available at: <u>https://www.bnhcrc.com.au/research/policy-economics-hazards/229</u>
- Farmer behaviour insights project (based in the Eastern Gangetic Plains, Asia).
- Integrated assessment of prescribed burning.
- Changing land management: adoption of new practices by rural landholders. Other resources developed by our team are available at: <u>http://www.ruralpracticechange.net/</u>
- Global extent of degraded farm lands and their conservation potential.
- Designing for uncertainty in conservation auctions.
- Aligning social preferences and practice of mine site rehabilitation and mining offsets in Australia.
- Stock take of knowledge on soil amelioration tools.
- Public benefits, private benefits, policy mechanism choice for land-use change for environmental benefits.
- The economics of risk, uncertainty and learning in the adoption of new agricultural technologies.
- Learnings from agri-environmental schemes in Australia access to our team's outputs related to the design and implementation of effective schemes available at: <u>https://www.resources4aes.net/</u>
- Introductory Course on Economics of Natural Hazards
- Introductory Course on Agriculture, Economics and Nature
- Blog posts focussing on agricultural economics: <u>https://www.pannelldiscussions.net/</u>

CONTACT US

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Land & Natural Hazards

RELEVANT PUBLICATIONS - JOURNAL ARTICLES

Adler, A.A., Doole, G.J., Romera, A.J., Beukes, P.C. (2013). <u>Cost-effective mitigation of greenhouse gas emissions</u> <u>from different dairy systems in the Waikato region of New Zealand</u>. Journal of Environmental Management, 131, 33-43.

Adler, A.A., Doole, G.J., Romera, A.J., Beukes, P.C. (2015). <u>Managing greenhouse gas emissions in two major dairy</u> regions of New Zealand: A system-level evaluation. Agricultural Systems, 135, 1-9

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Doole, G.J. (2012a). <u>Evaluation of an agricultural innovation in the presence of severe parametric uncertainty: an application of robust counterpart optimisation</u>. Computers and Electronics in Agriculture 84, pp. 16-25.

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