University of New England

Institute for Rural Futures

FELLOWSHIP SUMMARY REPORT

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PROGRESSING A SUSTAINABLE AGRICULTURE STANDARD FOR AUSTRALIA: LESSONS FROM THE USA

Host Institution: Penn State University

Host Collaborator: Professor Ted Alter

9th October - 4th December 2017

I give my consent for this report to be posted on the Co-operative Research Programme's website.

1. Objectives of the Fellowship

The objective of this research was to progress the development of a sustainable agriculture standard for Australia with a particular focus on standards and frameworks for recognition and trade of sustainable food, fibre and ecosystem services from the farm gate, based on lessons from the USA experience of the development and use of sustainable agriculture standards and certification/recognition systems. There is demand for clean, green sustainable agricultural products produced within sustainable agricultural systems in Australia, however the appropriate sustainable agriculture governance system for recognition, validation and trade is currently lacking. The aim of this CRP fellowship research project was to investigate the applicability of the '*USA National Sustainable Agriculture Standard' (ANSI/LEO-4000)* and the '*ANSI/ASABE S629 Framework to Evaluate the Sustainability of Agricultural Production Systems*' to the Australian jurisdiction to facilitate recognition and trade of sustainable food, fibre and ecosystem services from the farm gate. This research includes a USA case study literature review, semi-structured interviews and comparative governance analysis.

2. Achievement of the Fellowship

The USA case study literature review, semi-structured interviews and focus groups have been undertaken between 9th October and 4th December 2017 and analysis of the social science data and comparative governance is currently underway in preparation for publication as a dedicated chapter in a forthcoming sole authored book. The fellowship identified a number of potential sustainable agriculture standards and certifications being utilised in the USA apart from the '*USA National Sustainable Agriculture Standard' (ANSI/LEO-4000)* and the '*ANSI/ASABE S629 Framework to Evaluate the Sustainability of Agricultural Production Systems*'. Further data collection is required as a result of the fellowship in relation to the USA and Australia's international obligations under a number of treaties and agreements in relation to sustainable agriculture governance systems.

3. Major Achievements of the Fellowship

i. Analysis of sustainable agriculture governance systems in the USA raised the profile and importance for research participants in relation to the important of sustainable agriculture in the commitments to, and implementation of, various international obligations including the Sustainable Development Goals; The Paris Agreement; The International Treaty on Plant Genetic Resources for Food and Agriculture; and The United Nations Convention to Combat Desertification.

ii. Development of a comparative collaborative research project with the USA host institution on sustainable agriculture governance systems in Australia, USA, UK and European Union as a result of the fellowship.

iii. Collaboration opportunity with Leonardo Academy to trial an Australian version of the USA *National Sustainable Agriculture Standard' (ANSI/LEO-4000.*

4. Follow-up work

There are a number of publications envisaged including a dedicated chapter based on the fellowship research within a sole-authored forthcoming book on natural resource governance in late 2018, and a journal article currently under development for submission in February 2018 on the comparative collaborative research proposal of sustainable agriculture governance systems in Australia, USA, UK and European Union. The fellowship has resulted in a new collaboration with Penn State University on sustainable agriculture governance systems and created new networks and connections with USA research institutions, agricultural industry organisations, farmer groups and government agencies. This research can directly contribute to the development of sustainable agriculture standards and certification systems for Australia.

5. Importance of Fellowship research for helping develop regional, national or international agro-food, fisheries or forestry policies and, or practices, or be beneficial for society

The results of my research project is important for assisting recognition of sustainable agriculture on a national and international level, for example the development of a sustainable agriculture governance system for Australia can align with national and international priorities and obligations. Australia is a highly urbanized country with almost 90% of the population predominantly urban and the remaining 10% regional/remote with agricultural and Indigenous land managers being responsible for 87% of the Australian landscape. This population distribution has led to a lack of equitable distribution of the costs and benefits in the shared responsibility of public good environmental management of the landmass amongst all Australians. It is estimated that agricultural land managers invest at least $3 billion annually in natural resource management (NRM). Indigenous land managers' investments are currently unknown but equally considered substantial. The failure to recognise farmers' public good natural resource management contributions (both on-farm and off farm) has ongoing implications as highlighted in the Inquiry into the *Regulation of Australian Agriculture* that found there is a cumulative burden of regulations with Australian farmers requiring better, less burdensome regulation and more integrated systems of governance to demonstrate good environmental management and sustainable systems. To support Agrarian communities and First Nations Peoples the definition of '*sustainable agriculture'* in Australia in the 21st Century needs to be revisited and operationalized: it needs to reflect sustainable food, fibre and the very ecosystems and human communities that underpin these services. The last attempts to define sustainable agriculture for Australia was in 1997 (see *Natural Heritage Trust of Australia Act 1997 Cth)* and 1998 (Standing Committee on Agriculture and Resource Management 1998), which failed to operationalize and recognise sustainable land managers and their communities. In Australia around 75% of native vegetation occurs on land mapped as agricultural and the latest ABS Agricultural Census indicates a significant drop in farm businesses, falling 29% from 121,000 farm businesses to 85,681 between 2011 and 2016, including a decrease in the agricultural land area from 53% to 48% of the country. Within this contextual environment of lack of farmer support and recognition of public good environmental outcomes, Indigenous land management is growing to almost 40% of the landmass, and expected to

continue with the on-going Native Title claims determined. The distribution of both human populations and environmental assets combined with market forces and limited public funded farmer support has created challenges for the desired agri-environmental outcomes from the farm expected by the largely urban Australian community. Native vegetation laws in each state and territory since the early 2000s have limited agricultural activities and at the same time vested an enormous collective responsibility for biodiversity, water quality and native vegetation management to the farming sector with little if any shared cost burden of the provision of public good environmental outcomes from the farm. A sustainable agriculture governance system for Australia could address many of the social justice, recognition and cost sharing issues for Agrarian and First Nations Peoples and create new market opportunities for trading sustainable agriculture food and fibre products and ecosystem services delivered at the farm gate. Such a system could provide what the Inquiry into the *Regulation of Australian Agriculture* identified, being more integrated systems of governance to demonstrate good environmental management and sustainable systems. For Australia to comply with international obligations a sustainable agriculture governance system focused at the farm scale level is required. There are significant recent global developments regarding '*sustainable agriculture'* which have been identified as crucial in the delivery of outcomes within 5 of the 17 Sustainable Development Goals (SDGs) including: zero hunger; responsible consumption and production; climate action; life below water; and life on land. As '*sustainable agriculture'* cross cuts numerous SDGs, the FAO has been given the responsibility for the important SDG indicator 2.4.1 defined as the '*percentage of agricultural area under productive and sustainable agriculture'*. FAO is leading the work on developing a methodology inclusive of the economic, social and environmental dimensions of sustainable production, with the measurement instrument to be farm surveys (to be pilot tested in selected countries in selected regions) with the intention that countries will have the flexibility to identify priorities and challenges within the three dimensions of sustainability, and as such it could be assumed that sustainable farms would be identified as those that satisfy the indicators selected across all three dimensions. The International Treaty on Plant Genetic Resources for Food and Agriculture also relies on '*sustainable agriculture'* to demonstrate outcomes in particular compliance with Article 6 of this Treaty, which proposes a series of measures to promote the sustainable use of plant genetic resources for food and agriculture and calls upon Contracting Parties to develop and maintain appropriate policy and legal measures to that end. The role of '*sustainable agriculture'* as a more climate friendly system is also referred to in the context of achieving outcomes of the Paris Climate Agreement. The United Nations Convention to Combat Desertification also relies on '*sustainable agriculture'* to achieve Land Degradation Neutrality (LDN) and Sustainable Land Management (SLM) objectives and outcomes. Australia presently has no farm survey based system to recognise and accredit sustainable agriculture products and systems.

6. Relevance to the Cooperative Research Program

This fellowship was directly relevant to the aim of the Co-operative Research Program Fellowships being to strengthen the international exchange of ideas and increase international mobility and co-operation among scientists working in these areas. This has occurred as a result of this fellowship to the USA specifically targeting sustainable agriculture governance systems. This fellowship research is inter-disciplinary and focuses on the

social, economic and environmental elements required for a sustainable agriculture governance system for Australia. To ensure sustainability of the natural resource base and the human communities who steward these resources and produce sustainable food, fibre and ecosystem services, the appropriate instruments and governance to recognise and trade sustainable agricultural products is required. The outcomes of sustainability, food security and nutrition could be achieved through the development of sustainable agriculture governance systems. A standard for sustainable agriculture in Australia is the key instrument required to build such a new governance system. This fellowship aligns with the CRP theme 'Managing Natural Capital for the Future' and the requirements of 'Integrated Agricultural Production Systems' as it aims to progress a sustainable agricultural standard for Australia to address the vacuum that exists in the production, recognition and trade of biologically sound food and fibre and ecosystem services delivered from the farm gate.

7. Satisfaction

The fellowship was beyond my expectations with my host Professor Ted Alter and host institution Penn State University providing excellent networks, meetings, focus groups and presentation opportunities, office facilities and assistance with travel logistics to interview research participants in various locations in the USA. The enthusiasm of the research participants, which included academics, students, agricultural extension staff, agricultural industry organizations, farmer groups and government agencies, was an absolute highlight and indicative of the relevance of this fellowship. The OECD Co-operative Research Programme fellowship has directly increased my career opportunities through the opportunity to undertake in-depth research of the sustainable agriculture governance systems in the USA for application in the Australian context. The USA has had numerous sustainable agriculture standards and certification systems operating for many years, hence the learnings for Australia are unique and the opportunity to inform the development, testing and implementation of a sustainable agriculture governance system in Australia has grown from this fellowship, as has the breadth of potential international research collaborators. The other aspect is the applicability of a sustainable agriculture governance system for Australia that would conform to the Food and Agriculture Organisation of the United Nations (FAO) '*sustainable agriculture'* farm survey requirement (currently under development) for participating countries to implement the Sustainable Development Goals. Specifically the FAO has identified '*sustainable agriculture'* as crucial in the delivery of outcomes within 5 of the 17 Sustainable Development Goals including: zero hunger; responsible consumption and production; climate action; life below water; and life on land. The only practical problem was that my original focus of the fellowship was primarily on the *USA National Sustainable Agriculture Standard (ANSI/LEO-4000),* however the final development of this sustainable agriculture governance system was still underway with American National Standards Institute (ANSI) conducting a Pilot Accreditation Program for Certifying Bodies (certifiers) for ANSI/LEO-4000 during 2017 as the last stage before this standard is fully operational. There were quite a number of sustainable agriculture standards that have been in operation in the USA for some years, hence the fellowship research expanded to include other sustainable agriculture standards.

I was very happy with the Fellowship Programme and don't have any suggestions for improvement apart from consideration of the money exchange rate and varying travel costs between countries to ensure the fellowship award covers the actual cost of the fellowship travel.

8. Advertising the Co-operative Research Programme

I learnt of the Co-operative Research Programme through the web page. I don't have any suggestions of how to make it more visible apart from ensuring all Research Services Departments of Australian Universities are informed of the fellowship scheme. I don't have any issues to record of my fellowship and only would encourage colleagues to apply for this excellent international collaborative research opportunity.