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Antipodean agricultural and resource economics – introduction*

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In February 2016, the 60th Annual Conference of the Australian Agricultural and Resource Economics Society (AARES) was held in Canberra, 20 years since we added ‘and Resources’ to the Society’s name and *Journal*. As one way of commemorating those anniversaries, a pre-Conference workshop was held to highlight the contributions of the Society’s agricultural and resource economists. Papers were solicited with the expectation that they would be presented in a way that is accessible for the broad membership of the Society and that revisions would be published along with reviewer comments in the *Australian Journal of Agricultural and Resource Economics (AJARE)*. This Special Issue is the upshot. This article introduces the Issue and the other articles in it.

Key words: agricultural policy, development economics, environmental & resource economics.

1. Introduction

Agricultural economics as an organised idea has existed for a little over 100 years and for less than that in Australia. During the past six decades, the Australian profession has made its mark. At least in Australia, it is widely held that the Australian agricultural and resource (including environmental) economics profession punches well above its weight. The articles in this Special Issue provide evidence to sustain the legend. This Introduction provides a framework and context for the eleven articles to follow, including

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a brief exploration of the beginnings of the Society and some highlights of its evolution. It also recognises some of the key players who were instrumental in laying its foundations.

2. Foundations

The Australian Agricultural Economics Society was founded at a conference convened in Sydney in February 1957, with 125 in attendance (Appendix S1, Panel B). Annual conferences have been held in February every year since. The founding President, Keith Campbell (1960 and 1985), described the beginnings of the Society, including the development of the Constitution and the decision by the interim Council in 1957 to establish the *Australian Journal of Agricultural Economics (AJAE)*.¹ The first issue of the *AJAE* comprised the proceedings of the inaugural annual conference of the Society, which was also published as the March–June 1957 issue of the NSW Department of Agriculture's *Review of Marketing and Agricultural Economics (RMAE)*. It was controversial.² Authors listed there became big names in Australian agricultural economics (Figure 1).³

2.1 Agricultural economics in Australia – the early years⁴

The first professional association of economists in Australia was formed in 1888 as an 'Economics, Statistics and Social Science' Section in the Australian Association for the Advancement of Science. Not surprisingly given Australia's agrarian economy at that time, much of the Section's early attention was devoted to agriculture (Brigden 1927). The Economic Society of Australia, formed in 1925, was an outgrowth of this Section (Copland 1925). A perusal of the first (November 1925) and several subsequent issues of its journal, the *Economic Record*, reveals a relatively modest interest in agricultural issues, with articles addressing an eclectic list of other topics such as Australian population growth, banking, import tariffs, wages and land settlement matters.

Writing in 1928, Arnold Richardson (founding director of the Waite Research Institute in 1924) observed that 'Australia is the only important agricultural country of the world in which no Department of Agriculture or University has an organised Division of Agricultural Economics (Richardson 1928, p. 250)'. Campbell (1960, p. 207) hints at a '...high

¹ Appendix S1 includes the 1980 and present Constitutions of AARES.

² Campbell (1980, p. 2) wrote that 'Volume 1, No.1 [of the *AJAE*] ... did not appear without an abortive attempt at censorship and the misuse of power based on Commonwealth–State relations. The embryonic Society itself was also subjected to denigration in the columns of the Queensland Country Life newspaper, charges to which several university-based members of the Society replied in defence of the Society'.

³ Appendix S2 lists obituaries of notable Australian agricultural and resource economists.

⁴ Appendix S3 lists historical articles related to agricultural and resource economics in Australia.

**THE AUSTRALIAN AGRICULTURAL
ECONOMICS SOCIETY**

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**PROCEEDINGS OF THE
CONFERENCE**

OF

AGRICULTURAL ECONOMISTS

Held in Sydney
on
February 20 and 21, 1957

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Figure 1 Cover and contents page of *AJAE*'s first issue, 1957. Source: Available at <http://ageconsearch.umn.edu/handle/22833>.

point of pressure for the initiation of agricultural economics in Australia (p. 207)' around 1928–29. However, progress was dashed by the onset of the Depression in 1930. The 1936 Royal Commission on Money and Banking (Davidson *et al.* 1936) also highlighted the call for specialised units to conduct economic research in Australia. This helped to spur the creation of such units in various banks, one of the first being an economics department established in 1940 by the Rural Bank of New South Wales under the leadership of John Crawford (Anonymous 1995, p. 3). The NSW Department of Agriculture set up a division of Agricultural Economics in 1941, which two years later merged with the existing Division of Marketing to become the Division of Marketing and Agricultural Economics, but agricultural economics had been underway in some form in the Department before then, as reflected in its publishing history.⁵

Another flurry of interest in progressing agricultural economics in Australia came in 1940–1941. This time, it was led by the Australian Institute of Agricultural Science and its individual members (notably a group at the Veterinary School at the University of Sydney that included Professor Ian Clunies Ross and L.C. Holmes of the Bank of New South Wales). This group sought to establish an Institute of Agricultural Economics. It carried forward its initial ideas under the auspices of the Australian National Research Council, pitching the proposal to the Council for Scientific and Industrial

⁵ In 1946, the *Review of Marketing and Agricultural Economics* appeared for the first time in mimeographed form and as a sequel to the *Monthly Marketing Review*, which had been issued regularly by the Division of Marketing and Agricultural Economics and its predecessors since April 1937 (Hynes 1946).

Research (CSIR). However, CSIR declined to take up the offer. Campbell (1960, p. 208) observed that:

While the view was constantly reiterated in the early documents that any research unit should “be placed entirely outside the sphere of political influence,” the C.S.I.R. apparently did not then feel that its own scientific reputation was sufficiently secure to run the risk of providing the protection needed for a fledgling unit engaged in research in the rural social sciences.

The attack on Pearl Harbor in December 1941 frustrated hopes of any immediate move to institutionalise agricultural economics research in Australia. However, in 1943, a small Rural Industries Division was set up within the Department of War Organisation of Industry, headed on a part-time basis by John Crawford, and in 1942–1943, the Ministry of Post-War Reconstruction was formed, under the direction of Dr. H.C. Coombs. This Ministry included a research division with various sections, one of which was the Rural Reconstruction Section. In 1945, this section was expanded to become the Rural Research Division and placed under the part-time direction of John Crawford who also retained his post at the Rural Bank of NSW.

Anon (1995), p. 4) noted that:

In parallel with these developments, pressures were mounting from rural industries and the Rural Reconstruction Commission for the establishment of an on-going body to continue economic research beyond the immediate postwar period. ... In April 1945 a joint submission was made to cabinet by the Ministry of Post-War Reconstruction and the Department of Commerce and Agriculture proposing the establishment of a Commonwealth Bureau of Agricultural Economics.

Cabinet approved this proposal in July 1945, with Crawford as its founding director. The BAE was allocated an establishment staff of 32 and, within a year, had filled 22 positions. It was housed in the Department of Post-War Reconstruction until early 1950 when it was transferred to the Department of Commerce and Agriculture. In the years to come, the BAE in its various incarnations was at the centre of the development of the Australian agricultural and resource economics profession, serving as an important source of intellectual leadership, a provider of data resources, a major employer and trainer of economists and a force in policy analysis and discussions. Its directors were leaders who had an impact.⁶

Australian academia also turned its attention to formalising research and instruction in agricultural economics during the 1940s. In 1946, D.B. (Don) Williams filled what appears to be the first formal Australian position in rural

⁶ Appendix S4 lists Executive Directors of BAE, ABARE and ABARES.

economics at a tertiary educational establishment, namely Roseworthy Agricultural College, also with responsibilities for lecturing students at the University of Adelaide.⁷ In September 1948, the Commonwealth Bank of Australia (later, the Reserve Bank of Australia) endowed a position in agricultural economics at the University of Sydney, which was filled by Keith Campbell in 1951. Keith was promoted to a Research Professor in 1956, thus becoming the first to hold a Chair in Agricultural Economics in Australia (Longworth 2005). Henry Schapper took up a Senior Research Fellowship in Farm Management at the University of Western Australia in 1951 and was appointed as a Reader in 1957 (Moncrieff and Mauldon 2010; Swindells 2016). In the same year, Frank Jarrett assumed a major responsibility for teaching agricultural economics at the University of Adelaide, following his original appointment in 1953 as a Lecturer in Economic Statistics (Campbell 1960, Anonymous 2001). He was promoted to Senior Lecturer in 1956, Reader in 1960 and Professor in 1968 (Anderson and O'Neil 2002, pp. 22–23 and 89).

Beginning around 1943, a group from Sydney and Armidale began to consider the prospects of research and teaching in rural subjects at the New England University College (of the University of Sydney). By 1946, it had morphed into a more detailed plan to establish a Faculty of Agricultural Economics. In 1956, Commonwealth Bank funding was made available for positions in rural science and agricultural economics at the newly (in 1954) autonomous University of New England, with Jack Lewis being appointed as the foundation Chair of Agricultural Economics, a position he assumed in 1957 (Musgrave *et al.* 2014). In 1958, the first permanent position in agricultural economics was created at the University of Queensland. Owen McCarthy, who studied at Lincoln College in New Zealand, took up that position in late 1959.

Victoria was comparatively slow off the mark. In 1959, having spent a decade working in the NSW Department of Agriculture, Alan Lloyd was appointed as a Senior Lecturer in Agricultural Economics at the University of Melbourne, where he was promoted to Reader in 1967 and Professor of Agricultural Economics in 1969 (Watson *et al.* 2000). Other agricultural economists were employed at Melbourne University in the later 1960s and early 1970s, and some at Monash and La Trobe Universities, but it took until 1977 to appoint John Freebairn as the foundation Chair of Agricultural Economics at La Trobe. By 1980, the Society could boast a total of at least 9 professors among its members.⁸ By then, various degrees with significant

⁷ Don Williams attended the inaugural meeting of AAES in 1957 and seconded the motion by Keith Campbell to form the Society. Don was elected as the Vice President of the Society, with Keith Campbell as the inaugural President and Fred Gruen as Treasurer (Jarrett and Lloyd 1992).

⁸ Members of AAES who were Professors in 1980 included Keith Campbell, John Dillon, John Freebairn, Frank Jarrett, Alan Lloyd, Warren Musgrave, Ross Parish, David Throsby and Clem Tisdell (by the authors from Quilkey 1980).

specialisation in agricultural economics were being offered at undergraduate or Masters levels (at the Australian National University, La Trobe University, and the Universities of New England, Adelaide, Queensland, Melbourne and Sydney).

Appointments specifically emphasising resource economics came later. In many instances, although not always, environmental and resource economics was undertaken by (agricultural) production economists who had shifted their focus. Among the Society's early notables in this field, Warren Musgrave, who attended the inaugural 1957 conference, began as a lecturer at UNE in 1960; Tony Chisholm was appointed as Senior Lecturer at ANU in 1963 and was joined by Clem Tisdell who began his lecturing there in 1964 before becoming a full Professor at Newcastle in 1972 and at Queensland in 1989; Jack Sinden joined UNE as a resource economics Lecturer in 1967; Bob Lindner joined Adelaide as a Lecturer in 1971; Ian Wills joined Monash University as a Lecturer in 1972; Alan Randall was appointed as an Assistant Professor at New Mexico State University in 1970.

In addition, increasing attention was paid to agricultural development economics, beginning at the ANU with Ric Shand's appointment as a Fellow in its Research School of Pacific and Asian Studies in 1961, David Penny's in the mid-1960s and Peter Warr's appointment as a Senior Research Fellow in 1980 (subsequently to become the inaugural, John Crawford Professor of Agricultural Economics in 1989 at ANU).

Agricultural economics became established and grew within state governments, in concert with the growth of agricultural economics within universities and in the Commonwealth – mainly at BAE. Particularly prominent among these was the NSW Department of Agriculture, which was the nursery and proving ground for many who went on to become leaders in the profession in Australia. They include Keith Campbell, Sir John Crawford, John Dillon, Ron Duncan, Peter Druce, John Freebairn, Col Gellatly, Gary Griffith, Fred Gruen, Alan Lloyd, Geoff Miller, John Mullen, Ross Parish, Alan Randall, Jim Ryan and Bruce Standen, among others (as discussed by Alston and Pardey supplementary file, 2016). Like the BAE, the state departments provided excellent on-the-job training and, in many cases, also sponsored in-service training for higher degrees. Many of the beneficiaries of this support went on to employment in other parts of government, in the private sector or in international institutions and universities at home and abroad, yielding more-widely felt consequences.

2.2 AARES in an international setting

By the year 2000, around the world, 28 professional societies had been formed focused explicitly on agricultural (and resource) economics (Smith *et al.* 2004). The first was the American Farm Management Association founded in 1910, eventually to become the Agricultural and Applied Economic Association (AAEA) (Barkley 2010). The Agricultural Economics

Society of Japan (AESJ) was next, formed in 1924, followed by the Agricultural Economics Society (AES) of the United Kingdom in 1926, and in 1929, the International Association of Agricultural Economists (IAAE) and the Canadian Agricultural Economic Society (CAES) (Haviland 1960). According to Smith *et al.* (2004), the Australian Agricultural Economics Society (AAES) was the ninth such society to come into being, formed in 1957.⁹ It became the Australian Agricultural and Resource Economics Society (AARES) in 1996, and for simplicity, we will refer to it as AARES henceforth.

In its foundation year, 1957, AARES membership totalled 125, compared with the AAEE (2,438 members), the IAAE (857) and the AES (485). The subsequent pattern of growth in AARES membership follows trends similar to those of the other societies plotted in Figure 2, namely strong and steady growth throughout the 1960s (and, in the case of AARES, into the early 1970s with a peak of 708 members in 1973), a flattening of the membership trends during the 1980s and 1990s, and a decline thereafter.¹⁰ In 2015, AARES members totalled 475, roughly equivalent to the membership totals of the mid-1960s, but now larger than the corresponding members for AES, which had declined from a peak of 820 members in 1970 to 425 members by 2015. By 2010, membership of the AAEE had fallen to about half (2,576) of its 1987 peak of 4,934, as had membership in the IAAE (from a 1991 peak of 1,958–848) to be near their numbers of the 1960s; IAAE has seen a recent resurgence in membership (to 1,519 members in 2015), but AAEE has not. We conjecture that the relative stability (or sustainability) of AARES membership – especially compared with the AAEE and AES – might be attributable to the Society's active effort to remain relevant to an evolving profession with interests in economic development and, especially, environmental and resource economics and the absence of a local professional society to serve either of those interests.

AARES was formed with a federated branch structure, similar to the organisational structure of the Economics Society of Australia, which, at its formation in July 1925, had nine state and local branches throughout the two countries (Copland 1925). In contrast, at its formation, while AARES allowed for branches in states and territories of Australia, it opted not to include any overseas branches. As Campbell (1980, p. 2) observed,

It is of interest that two of the matters discussed at the inaugural general meeting were the question of support for a (British) Commonwealth Bureau of Agricultural Economics and the possibility of forming a joint Australian and New Zealand society rather than simply an Australian

⁹ The Korean Agricultural Economics Association (KAEA) was tenth, formed later in the same year.

¹⁰ This 1973 peak was surpassed only once by an aberrant spike in the membership total to 710 in 2010, the year of the highly successful AARES annual meeting in Adelaide.

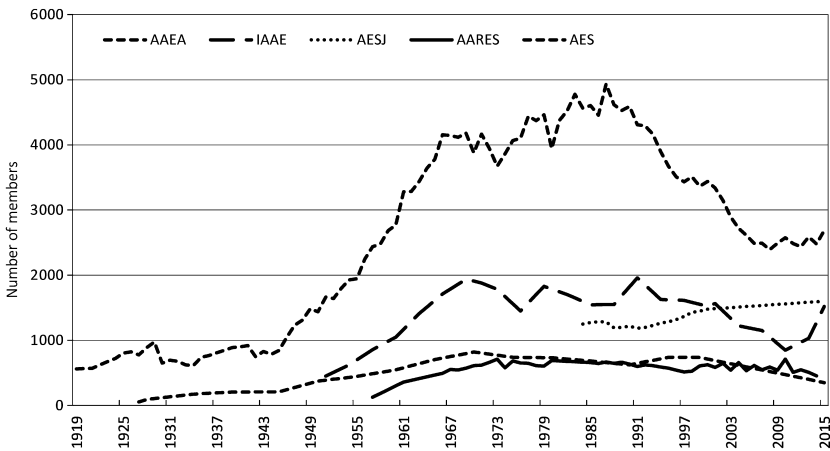


Figure 2 Membership of selected agricultural economics associations, 1919–2015. Source: All data prior to 2000 are from Smith *et al.* (2004, p. 33). For subsequent years, AAEA (now Agricultural and Applied Economics Association) membership data were obtained from the AAEA business office in Ames, Iowa; AARES (Australian Agricultural and Resource Economics Society) data from AARES business office in Canberra, Australia; AES (Agricultural Economics Society) data for 2007–2015 from AES secretariat, Banbury, United Kingdom (with other estimates obtained by linear interpolation); AESJ (Agricultural Economics Society of Japan) data for 2001–2015 obtained from M. Gemma and A. Takeishi (2016, personal communication); and IAAE (International Association of Agricultural Economists) data for 2001, 2004, 2007, 2010, 2013 and 2015 from the IAAE business office in Ames, Iowa (with other estimates obtained by linear interpolation). See also Appendix S9.

one. On the latter point, the meeting decided that it would be wise to establish a society firmly on Australian soil before beginning trans-Tasman adventures.

The first four branches were formed in 1959 (Victoria and the ACT) and 1960 (NSW and WA) (Campbell 1980, p. 4).

A New Zealand branch was eventually constituted in 1975, and the first off-shore annual meeting of the Society was held in Christchurch in 1981.¹¹ A North American Branch was formed in 1997. For much of the Society’s history, the Victorian, ACT and NSW branches have sustained the largest membership, accounting for around 40–50 per cent of total AARES membership over the years (Appendix S8). Interestingly, non-Australasian (i.e. ‘overseas’ and North American branch) membership has grown as a fluctuating share of total AARES membership, from less than 10 per cent in 1997 to more than 20 per cent in 2015 (Appendix S9).

¹¹ Eighteen years later, in 1993, a New Zealand Agricultural and Resource Economics Society (NZARES) was formed, and it is constitutionally affiliated with AARES (see www.nzares.org.nz).

AARES has a long history of active international engagement. J.R. Currie, the foundation secretary of the IAAE (then the International Conference of Agricultural Economists, ICAE), visited Sydney in the early 1950s soliciting participation in the ICAE, which Australians first attended in 1958 in Madras (Campbell 1980, 1985; p. 46). His visit also contributed to the impetus to form an independent Australian Society – of which the first president, Keith Campbell, was the Australian country representative to IAAE (from 1955 to 1976) – and helped bring the 13th Triennial IAAE conference to Sydney in 1976 (Longworth 2005), attracting 501 attendees. Three decades later, in 2006, 987 professional delegates from 78 countries attended the 26th Triennial IAAE conference, which AARES hosted at the Gold Coast Convention Centre (Alston *et al.* 2007).

3. The workshop

The February 2016 workshop was convened at ANU to commemorate 60 years of AARES. In designing the workshop and this associated Special Issue of *AJARE*, we faced various challenges. What topics should be included? How many? Which of our colleagues should we invite to write and present papers on those topics? What about reviewers and discussants? One set of constraints came from having to fit everything into one day in Canberra. Another set came from the *Journal*, restricting the total number of articles and their maximum length, which we as editors for the Special Issue had the pleasure of enforcing on ourselves and the other authors.

A related set of challenges was to define the style, coverage and scope of the work, giving appropriate consideration to contributions made by members of the Society living outside Australia, and nonmembers working on relevant topics within Australia. It seemed natural and appropriate to us to define the scope as encompassing agricultural and resource economics (reflecting the contemporary focus of the members) as undertaken in Australia and New Zealand. Less clear was how to treat the work of the very significant and growing numbers of other overseas members, including those in North America, which also has a branch of the Society. Individual authors dealt with this and other questions according to their own lights to some extent. We encouraged them to emphasise work with relevance to Australia and New Zealand.

Our charge to authors is indicative of our thinking at the time and may help readers understand why authors approached the topics in the ways they did. Specifically, we said (among other things):

The paper should highlight the most significant contributions made by members of the Society (and others through the auspices of the Society such as conference Invited Speaker programs) to the disciplines of agricultural and resource economics as they pertain to the workings of the economy and to public policy related to agriculture and natural resources in Australia and New Zealand. ...The review should not be

merely historical, but should treat the progressive development of thought in a way that focuses on what remains important. Authors are welcome and encouraged to point also to a future research agenda.

In choosing topics and authors to invite to write on them, we sought to achieve a balanced and comprehensive coverage of the main work done by agricultural and resource economists in Australia and New Zealand, especially during the 60 years since the Society was formed. Although some of these choices of topics and authors might seem obvious and inevitable, others are less so and the ultimate listing reflects an iterative process of negotiation among ourselves and with prospective authors. To some extent, the details of where the lines are drawn between topics, and whether topics are included or not, are unavoidably subjective and arbitrary. And what the authors were able to cover within those boundaries was limited by various factors, with much relevant material having to be omitted or consigned to supporting online material, owing to tightly binding space constraints.

The choice of authors was made to some extent jointly with the choice of topics, and in some cases, the choices were made more difficult by the fact that some individual authors have made leading contributions across more than one topic. In some cases, more than one individual stood out as a potential author and in some instances, we addressed this by inviting two colleagues to co-author the article; in other cases, a co-author was added at the suggestion of the author initially invited. In many cases, potential authors of articles were invited to serve as commentators instead.

Although it was not initially intended as a criterion for inviting them, it became apparent to us along the way that all of our invited authors, and most of the commentators, had served as the President of AARES and were also Distinguished Fellows or Distinguished Life Members of AARES.¹² This is a positive point in that it reflects the senior and distinguished status of our group of authors, which seems appropriate when taking a mainly retrospective interpretative look at the profession and its accomplishments. A less positive, and also unintended, implication is that the authors are predominantly older, white men – possibly past their prime! The Society now involves a much higher proportion of younger people and women than this list conveys and is more ethnically diverse, but it was not easy for us to find ways to reflect that fact in this project devoted to a 60-year historical retrospective of AARES.

4. The contributions

We ended up with a total of ten articles from the workshop, each of which is accompanied by two *Comments* from reviewers who also served as referees

¹² Appendix S5 includes a chronological listing of AARES Presidents and Appendix S6 includes a chronological listing of AARES Distinguished Fellows and Life Members.

and gave advice to the authors and editors on the workshop papers as prospective *Journal* articles. The Issue is rounded out with this Introduction and the article by Polyakov *et al.* (2016), which was presented in very brief form at the workshop and serves as a complement to the Introduction in setting the scene for the papers to follow.

The structure of the Issue reflects our perception of the evolution of the profession and its emphasis, drawing on the analysis provided by Polyakov *et al.* (2016). In the early days, the economics of agricultural production was a primary preoccupation of Australia agricultural economists as well as their counterparts around the world. Indeed, the *American Journal of Agricultural Economics* replaced the *Journal of Farm Economics* in 1968, after 50 years in that guise. In Australia, within production economics, Australians became especially well known for work in three areas covered by the first three subject-matter articles in this Issue, namely farm management (Malcolm and Wright), risk (Quiggin and Anderson) and innovation (Alston and Pardey).

A surge of membership of AARES in the latter 1960s, and sustained through the 1970s, reflected in part a surge of engagement of Australian agricultural economists with agricultural policy issues – whether employed in government or academia. This was mirrored in the subject matter of articles in the Society's journals. The next three articles in this Issue deal with various dimensions of the farm and food economy and related policy questions, including agricultural adjustment (Edwards and Bates), agricultural markets and marketing policies (Griffith and Watson) and national and global price- and trade-distorting policies (Anderson).

A distinguishing and long-standing feature of (agricultural) economics in Australia has been an appreciation for the nation's small, open-economy status (except in wool) and the virtue in taking an economy-wide perspective. This is reflected in some of the work on agricultural policy (Anderson, 2016). Economy-wide modelling has also been used to look at broader economic questions related to the role of agriculture and natural resources in the economy, including the next article in this issue on booming sector economics (Freebairn).

Over time, as foreshadowed by Parish (1969), Dillon (1972) and Musgrave (1976), new subfields gradually became more important. Partly, this drift in emphasis is because of successes in reform of agricultural policies in Australia and New Zealand and a reduced demand for economists to work on traditional policy issues. Among the subfields that have grown in importance, the most prominent to date is environmental and natural resource economics – the last three articles in this Issue deal with three aspects of today's main agenda, namely natural resource management (Pannell *et al.*), environmental economics (Bennett and Randall) and climate change policy and energy transition (Fisher).

This collection emphasises the profession's contributions within Australia and New Zealand and does not include a survey of the profession's contributions to agricultural development in emerging economies, another

area that has come to preoccupy Antipodean agricultural economists much more since the 1980s. Development economics is likely to continue to be an important part of the AARES agenda, along with environmental and resource economics, but this too can change. More recently, we have seen increasing attention to food, health and consumer issues, a renewed interest in the economics of agricultural production and a general drift in economics associated with evolving tools and evermore abundant and different data. Who knows what topics will occupy centre stage in the Centenary issue of the Society's *Journal*?

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Appendix S1 AARES red tape—Minutes of the first meeting and list of participants, and 1980 and 2016 Constitutions of the Society.

Appendix S2 Listing of obituaries of notable Australian agricultural and resource economists.

Appendix S3 Listing of articles relevant to the history of agricultural and resource economics in Australia.

Appendix S4 Chronological listing of Executive Directors of BAE, ABARE and ABARES.

Appendix S5 Chronological listing of AARES Presidents.

Appendix S6 Chronological listing of AARES Distinguished Fellows and Life Members.

Appendix S7 Chronological listing of AJAE, AJARE and RMAE editors.

Appendix S8 AARES membership trends by branches, 1961–2015.

Appendix S9 Tabulation of AARES membership, 1957–2015.