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RURAL SETTLEMENT SCHEMES IN THE SOUTH WEST OF WESTERN AUSTRALIA AND RORAIMA STATE, BRAZIL: UNSUSTAINABLE RURAL SYSTEMS?

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Abstract: In the years after the First World War, the British and Western Australian governments cooperated in a Group Settlement Scheme. Its aim was to bring groups of settlers from various locations in the United Kingdom to remote forested parts of the South West of Western Australia, and to supply them with tools, building materials and livestock with which they were to clear land and establish small farms. Successful settlers would then be granted ownership of the land that they had developed. The scheme met with limited success for a range of reasons including the challenging nature of the terrain and the vegetation, the unfamiliarity of the settlers with both farming and the local environment and the decline in economic opportunities resulting from the onset of the Great Depression. While many, if not most, settlers abandoned their farms within a relatively short period of time, some did develop successful dairy farms which have now been passed through several generations of family farmers for almost a century. Furthermore, many of the lots that were abandoned by the original Group Settlers during the depression have been reoccupied and redeveloped in recent decades as the scenic South West region has become a high amenity rural area characterised by growth in viticulture, tourism, retirement migration, hobby farming and telecommuting. This paper uses archival material to document the challenges and shortcomings of the original settlement scheme and will outline the subsequent development of some of the Group Settlement localities over the intervening decades. This experience is compared with the Nova Amazonia project, a modern day rural settlement scheme in a remote part of Brazil where the settlers have experienced challenges and difficulties comparable to those of the Group Settlers on an Australian frontier in the 1920s.

Keywords: Rural settlement schemes, group settlement: Nova Amazonia, Western Australia, Roraima, sustainability

1. INTRODUCTION

Rural settlement schemes have a chequered history. While vast areas, particularly in the Americas and Australasia, have been opened up for rural settlement by imperial, colonial and national governments in recent centuries, this process has not been problem free. The hardships faced by many agricultural pioneers across the planet have become the stuff of legend and the failures of such initiatives are many and varied. In South Australia in the nineteenth century, settlers moving north of Goyder's Line during an atypically high rainfall period were forced to abandon their farms when the local climate reverted to the norm (Meinig, 1962). In Africa, the imperial British Ground Nut Scheme was so unsuccessful that it gave rise to the somewhat modified aphorism "Give us the job and we will finish the tools". In Central Asia, Soviet schemes for irrigated agriculture have eventually led to the near complete drying up of the huge Aral Sea. In the United States, a combination of drought and

depression created a “dust bowl” and caused mass emigration from the farmlands of Oklahoma and several neighbouring states, an event famously fictionalised in Steinbeck’s (2012) novel, “The Grapes of Wrath”.

While a large and growing area of the earth’s land surface has been turned into farmland in the 10 000 or so years since the agricultural revolution, there are also many examples where farming activity has become unsustainable, at least for some of the settlers, and farmland has been abandoned.

In this paper, we examine two surprisingly similar government-sponsored land settlement schemes from a sustainability perspective, the Group Settlement Scheme in the South West of Western Australia in the 1920s and the Nova Amazonia project in Brazil’s northernmost province of Roraima, which commenced in 2001. Both government sponsored schemes sought to bring settlers over considerable distances to remote, frontier regions where, as pioneers, they were intended to establish small scale agricultural operations in environments with which they were unfamiliar.

One of the paper’s aims, therefore, is to consider the extent to which the factors that rendered Group Settlement largely unsustainable were replicated in Nova Amazonia. However, we also draw attention to the post Group Settlement history of these parts of Western Australia’s South West. In recent decades, this region has experienced significant population increase and economic diversification. This is in contrast to the trajectory of most of Western Australia’s other rural areas, such as the Wheatbelt. Since the Group Settlement experience, in a small way at least, has contributed to this recent success, we point out this more recent history in order to caution against the ascription of, perhaps premature, sustainability judgements on specific land settlement projects.

2. THE RATIONALE FOR AND THE RHETORIC CONCERNING THE GROUP SETTLEMENT SCHEME

After World War One, Britain experienced an economic slump during which two million people (17% of the workforce) were unemployed by 1921 (Constantine, 1980). At the same time, key figures in the British Colonial Office were seeking to strengthen the bonds of the British Empire by encouraging emigration to and pioneer settlement in Britain’s colonies and its newly independent dominions including Australia. At the other end of the world, newly independent Australia was strongly committed to a “White Australia” policy and, in particular, to the encouragement of British migrants (Jones & Birdsall-Jones, 2008). More specifically, Western Australia, the largest and most sparsely settled state, was experiencing the end of a boom which had been associated with the 1890-1910 gold rush and it was seeking to restore and diversify its economy through the development of new agricultural areas. The Western Australian government was therefore one of the first in the British Commonwealth to secure a loan agreement with the British government which would provide new settlers with assisted passages and assist in financing land settlement schemes for these migrants, especially for ex-servicemen and their dependants.

In part to access these British funds, the Premier of Western Australia devised a scheme whereby dairy farms in the South West of the state were to be established through forest clearance by suitable British settlers. Families would receive assisted passages and, while they lived in temporary accommodation in groups of 12-20 families, the men would be given subsistence wages to work cooperatively on clearing and fencing. When a core of cultivable land had been established for each settler, they would be allocated small freehold farms of 40-65 hectares for which they would be required to repay a share of the development costs at low interest and over 30 years.

The scheme was very widely publicised across Britain in the early 1920s, both by Western Australian politicians and public servants touring the country and giving lectures and through newspaper advertisements and articles (Brayshay & Selwood, 2002). An article in the mass circulation Daily Mail in 1922 was headlined “Giving farms away and how to get them”. Many other British newspapers then took up the story. Later that year, the Newcastle Chronicle, a paper serving a region of particularly high unemployment in North East England, reported: “Already there are thousands of settlers there who, originally without capital, after a few years of work are comfortable farmers (on)richly fertile and well-watered (land) capable of growing anything”.

Potential settlers encouraged by these reports could obtain Western Australian government pamphlets which gave further information. The claims made by state government pamphlets in 1923 stated that “this territory blessed by nature” had been “carefully classified and surveyed so as to include only soil suitable to intense culture and dairying”. They also claimed that “competent supervision” would be provided by local people with farming

experience and that "rail or motor (would) keep the settlements in easy touch with the convenience of the cities".

3. THE REALITY OF GROUP SETTLEMENT

Between 1921 and 1928, 6 000 settlers in 127 Groups cleared over 40 000 hectares of forest land and those who completed the forest clearing stage were allocated their small landholdings (Gabbedy, 1988a, 1988b) (Fig. 1).

Most settlers soon found that both the British media and the Western Australian government pamphlets had presented an overly optimistic view of the scheme. The environment was extremely unfamiliar for a British and largely urban settler group with little or no farming experience. The forest was luxuriant and dense. The eucalypts were very tall, with karri trees reaching almost 100 metres in height on occasion, and the timber of the jarrah trees was much harder than that of European forest trees. This slowed down the rate of forest clearance and, in many cases, trees were merely ring barked and left to die. The soils were often poor and badly drained and some of the local plants were poisonous to cattle.

In social terms, local expert advice was frequently lacking and the promised easy access to "cities" was largely non-existent. Roads to the group settlements were little more than bush tracks that were barely passable during the heavy winter rains. The South West, an area of 24 000 square kilometres, had only 34 000 inhabitants in 1921. The region's largest towns had only a few thousand inhabitants and even these small centres could be 100 kilometres distant from the most remote of the group settlements. Perth, the state capital, was a small city of 170 000 inhabitants and was 200-400 kilometres away from almost all the group settlement sites. Although some primary schools were established, the provision of educational and medical services to the group settlers was extremely limited. Finally, many, if not most, of the farms were economically unviable. They were too small to support a family and, in many cases, the government funding ran out before enough land had been cleared.

These problems rapidly became apparent and, as a corollary to the positive statements on the scheme in the British press, a steadily widening flow of negative publicity appeared in the Australian media. In 1924, the Albany Advertiser, a newspaper in a south coast town close to some of the most remote group settlements reported that settlements were "being formed many miles from any existing or proposed railway and, unless good roads are made, suitable for motor traffic, they will be cut off hopelessly from both supplies and markets". In 1926, a Perth paper, the Western Independent, noted that "fruit growing is a doubtful starter but dairying is hopeless". In 1927, Group Settlement was portrayed as a scandal nationally when Melbourne's leading paper, The Age, claimed that millions of pounds had "gone to waste" and "hopeless land" had been allocated to many of the group settlers (Fig. 2).

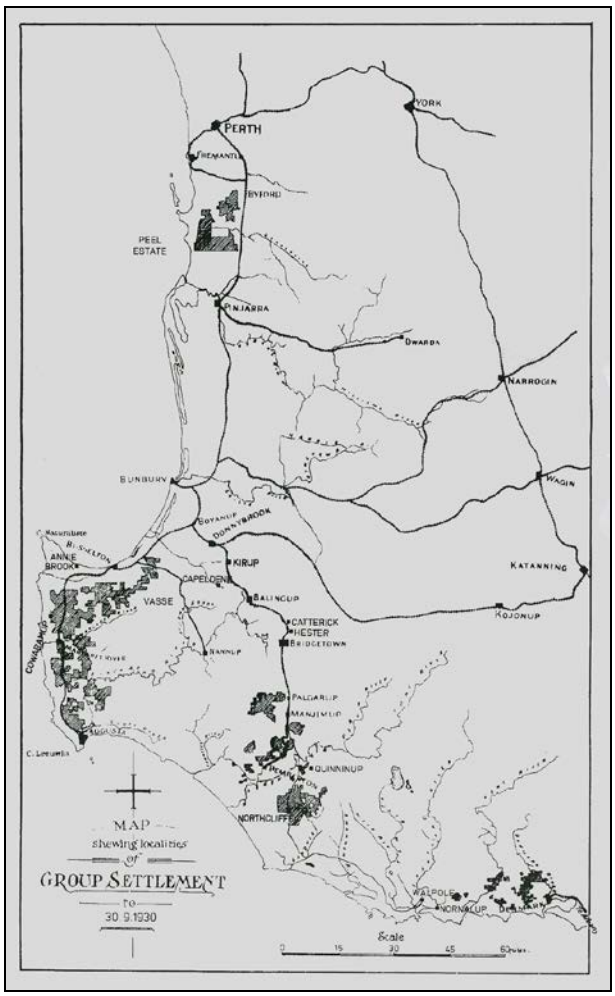

Figure 1. Map of the Group Settlements (1930)
Source: Gabbedy (1988a)

In these circumstances, and given that the Great Depression of the 1930s brought about a collapse in the price of dairy products and affected Western Australia very severely (Bolton, 1994), it was not surprising that most of the group settlement farms were abandoned, many of them rapidly. Brunger & Selwood (1997) found that almost half (45%) of the group settlers in the Shire of Denmark, on the south coast, had abandoned their farms within five years of their arrival. After 25 years, only 12% of the group settlement farms remained in their original hands.

Figure 2. Group Settlement Property (1920)
Source: Margaret River District Historical Society

4. A COMPARATOR: THE NOVA AMAZONIA SETTLEMENT PROJECT

As a result of land allocations made during its colonial period, Brazilian agricultural land ownership is characterised by a very high level of concentration of large landholdings in the hands of very few owners. In the second half of the twentieth century, several policies to reform and redistribute land ownership were enacted. However, these have had a very limited impact and the main thrust of government action in this area has involved the opening up of new agricultural land in the Brazilian Amazon with much of this land being taken up by, often urban and generally poverty stricken, migrants from the country's north east.

Roraima state, which borders Venezuela and Guyana, has a population of little more than 400 000 inhabitants which is comparable with that of Western Australia as the conclusion of the Group Settlement Scheme. It is the most remote and underdeveloped state in both Amazonia and Brazil. Portuguese colonial settlement in the area was limited and, even in the nineteenth and early twentieth centuries, the main land use was extensive cattle ranching. Until a road was completed in 1976, the area was only connected to Manaus and the rest of the country by the Rio Branco, a river that is barely navigable in the dry season (from October to April). Nevertheless, since the 1940s, local governments in Roraima have been encouraging its agricultural colonisation by migrants from north east Brazil, and especially from Maranhao state almost 2000 kilometres to the east.

More recently, such colonisation projects have been overseen by the National Institute of Colonisation and Agrarian Reform (INCRA). The institute requires that federal, state and local governments should all be involved in these colonisation projects. Furthermore, it requires that these projects should be economically viable and environmentally sustainable and that the settlers should be provided with technical and financial assistance and adequate educational and medical facilities. Even so, INCRA's own statistics indicate that there is a 12% rate of abandonment of settled plots by the colonists in Roraima state.

A survey conducted in 2013 in the Nova Amazonia colonisation project area investigated the causes of this land abandonment (Fig. 3 and Fig. 4). Nova Amazonia is an INCRA colonisation project in Roraima which commenced in 2001. It consists of an area of ca. 30 kilometres square and was settled by about 400 families. The findings of the survey exhibit striking similarities with the experiences of the Group Settlers in Western Australia eighty years earlier. In environmental terms, INCRA itself classifies most of the land in Nova Amazonia as "unsuitable" or as being characterised by "severe restriction" for agriculture with the remainder merely possessing "moderate restriction". The survey revealed that there had been a lack of sound migrant selection. Most of the settlers were former urban dwellers with generally low educational levels, no farming experience and few if any working age children. The surveyed settlers complained that they had received insufficient technical support and financial aid from INCRA, and that no medical facilities were available and there was only one primary school to serve a large area and population.

Figure 3. Nova Amazonia Property (June, 2012)

Even though sustainability as a concept and an ideal did not exist in the 1920s, it is clear from the rhetoric and the official statements of both the Western Australian government and INCRA that they appreciated the need to address the environmental, social and economic concerns and aspirations of the settlers. Although it was not the case in practice, the Western Australian authorities

emphasised the environmental suitability and the fertility of the group settlement sites. They also stressed that adequate communications and medical and educational facilities would be available. Finally, they claimed to offer sufficient technical and financial support to enable the settlers to establish viable and profitable farms. These promises essentially mirror the guidelines that INCRA had set for itself in its own agricultural colonisation projects. In Nova Amazonia, the conducted survey concluded that there has been "good legislation but bad observance of it". Likewise, the aims of the (British) Empire Settlement Act of 1922, under which funding was made available for the Group Settlement Scheme in Western Australia, may have been laudable, but the local implementation of the scheme certainly left very much to be desired.

It is therefore possible to argue that there were the failures of planning and implementation in both of these cases that led to the creation of, at least potentially, unsustainable rural systems. However, a consideration of the history of the Group Settlement sites up to the present day would suggest that the sustainability of a rural system will often vary according to the time frame over which that sustainability is assessed.

5. THE SOUTH WEST OF WESTERN AUSTRALIA SINCE GROUP SETTLEMENT

Little economic or demographic growth occurred in the South West of Western Australia for some time after the abandonment of many of the Group Settlement farms. After the Second World War, however, the region's fortunes changed radically.

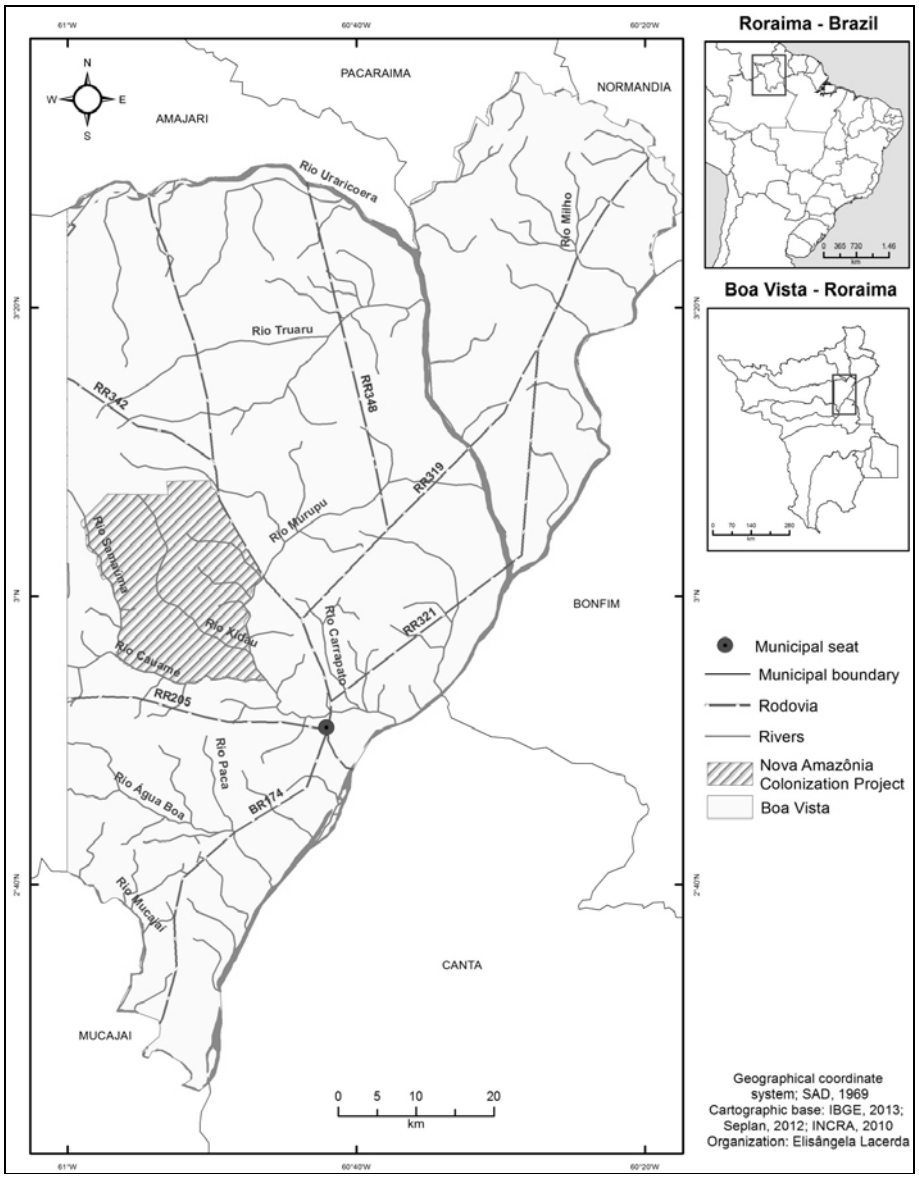

Figure 4. Map showing the location of Nova Amazonia

The Western World, and Australia in particular, entered the thirty year postwar "long boom" and many of the abandoned Group Settlement farms were reallocated to a new generation of (returned) soldier settlers. On this occasion, however, they were being allocated at least partially cleared land, they were largely Australian and more likely to have been screened for agricultural experience and they were taking up their properties at a time when prices for agricultural produce were rising.

In the 1960s, scientific research indicated that the climate and soils of Margaret River in particular, but in fact most of the former Group Settlement land, were exceptionally suitable for the cultivation of premium wines. By this time the Western Australian economy and population were growing rapidly as the result of a mineral boom largely based on the export of iron ore to Japan. Both the abandoned landholdings and the often struggling dairy farms from the Group Settlement era provided many investors with an opportunity to purchase these appropriately sized lots and develop them as vineyards.

At the same time, the tourist and recreational potential of the region began to be recognised. The local forests and coasts are spectacular. The south western tip of the state offers some of the world's best surfing conditions and the region's Mediterranean climate is attractive for both tourism and retirement. By the 1980s, the presence of numerous premium wineries offered a further tourist attraction.

Over the course of the late twentieth century therefore, the south western corner of the state, and in particular the former Group Settlement nodes of Margaret River and Denmark, became part of a "pleasure periphery" not merely for Perth and Western Australia but internationally given the global reputation of its wines and its surf breaks.

While wine and tourism (and therefore wine tourism) have become economic mainstays of this area in recent decades, it has also benefited from an influx of often affluent, often skilled and educated in-migrants (Selwood et al., 1996; Curry et al., 2001). Many of these have been retirees, but equally many have been attracted not only by the area's aesthetic and climatic environments but also by the potential to work in these pleasant surroundings.

These new settlers are a diverse group (Haslam McKenzie, 2010). They include "electronic cottagers" who are largely able to conduct their business remotely by telephone and the internet while living in pleasant rural surroundings. Many artists and crafts people have also moved into the area. While they might also seek to sell their work in the cities, the growing numbers of tourists visiting the area are an important market for many of them.

Furthermore, the local wine and wine tourism industry has rapidly diversified into a much broader and high quality food and food tourism enterprise. Many of the hundred or so wineries that are now in operation locally also incorporate restaurants as well as offering cellar door wine sales. Both on the vineyards and in the growing number of restaurants and food shops in the local small towns, there is an emphasis on local produce to complement the local wines. This has stimulated considerable high quality (if often small scale) local agricultural diversification into products as diverse as olives, berry fruits, venison and organic vegetables. It has also given rise to niche agricultural processing businesses producing, among other items, olive oil, jams and preserves, high quality cheeses and speciality dried and cured meats and sausages.

What had been an area of social and economic distress, from which large numbers of settlers were walking off their farms in the 1930s Depression, has become, in a matter of decades, a prime target of rural amenity in-migration (Argent et al., 2014).

6. CONCLUSION

In this paper, we have briefly summarised the trajectories of two rural settlement schemes across very broad spatial and temporal contexts. One not very surprising conclusion that emerges is that, in both cases, the gulf between the rhetoric and the promises made concerning the potential of the scheme far exceeded the reality that the settlers experienced. If this were not at least common, if not the norm, on new agricultural frontiers, then the popular association between pioneering and hardship would not be as strong as it is.

Nevertheless, the extent of the similarities between the reasons for the failures associated with both Group Settlement and Nova Amazonia is notable. Both were undertaken shortly before major global economic downturns, the Great Depression and the Global Financial Crisis respectively. These worldwide events were not foreseen by the projects' sponsors, but equally they were largely not foreseen at all. It is at the more immediate levels of planning and implementation that the judgement of the protagonists can be more legitimately questioned.

The limited potential of the land for the agricultural activities proposed for it was an immediate technical failing which, in both cases, might be excused in part by the isolation of the areas to be settled. Nevertheless the challenges of clearing the karri and jarrah forests were readily apparent and

INCRA was aware of the limited potential of the land in Nova Amazonia.

It is, the human shortcomings that were perhaps more surprising and even more avoidable. It is laudable that rural settlement schemes seek to alleviate social distress but, when the potential settlers lack relevant skills, experience and education, it is all the more important that they receive adequate technical and social support.

In the 1930s, with regard to the Group Settlers and, more arguably, in Nova Amazonia today, it was and is possible both to describe these rural settlement schemes as unsustainable and to identify economic, social and environmental reasons as to why this was or is the case. However, the impressive and diverse economic and social development of Western Australia's South West in recent decades also reminds us that sustainability also possesses a temporal goal, that of intergenerational equity, and it is in this regard that we make our final point.

In 2015, the south western corner of Australia is (albeit with some exceptions) environmentally diverse and attractive, economically diverse and prosperous and socially diverse and harmonious. However, its rainfall has decreased significantly over the last four decades as the depression bearing winter rain belts have moved polewards. Also, as another component of climate change, its temperatures are rising. This is not only affecting the optimal conditions for the production premium wine grapes, but also encouraging the growing use of irrigation which is currently lowering the local water table. The decreases in rainfall and increases in temperature are also affecting the unique and scenic karri forest ecosystem which could even disappear by the end of the century. These developments are raising concerns related to the sustainability of both the wine and tourism industries locally (Jones et al., 2010).

Tourism, even more than wine, is also an industry which is vulnerable to shifts in demand for a variety of economic and social factors (Haslam McKenzie, 2004). In his consideration of the "theory and practice of sustainable rural development" Kluczka (2004) observes that "society, space and development are subject to a continuous process of change which may result in new aspects or priorities". Furthermore, in his argument for "sustaining rural environments (through) widening communities of knowledge", Pierce (1998) contends that an appreciation of spatial, temporal and comparative scales is required for "more sophisticated analyses of the contextual domains of sustainability".

Reflecting the concerns of these two authors, Sorensen (2004) has put forward similar arguments stressing the importance of the time horizons over which rural systems are required to adapt to change. In both Western Australia's South West and Roraima, rural areas with very little social, economic or infrastructural capacity were initially expected to adapt, in the very short term, to the large, rapid and externally imposed changes instigated by major rural settlement schemes. For the reasons set out in this paper, it is not surprising that prompt and successful adaptation failed to eventuate in either case.

Nevertheless, we argue that neither the current success of the former Group Settlement area nor the current challenges being faced by the settlers in Nova Amazonia should necessarily be seen as indicators of either the presence or the absence of sustainability. As the current experience of Western Australia's South West would indicate, sustainability is a goal which is constantly being sought through adaptation and change rather than a state which can be identified or achieved at any given point in time.

REFERENCES

Argent, N., Tonts, M., Jones, R. & Holmes, J., 2014. *The amenity principle, internal migration, and rural development in Australia.* Annals of the Association of American Geographers, 104, 2, 305-318.

Bolton, G., 1994. *A fine country to starve in.* University of Western Australia Press, Nedlands, 278 p.

Brayshay, M. & Selwood, J., 2002. *Dreams, propaganda and harsh realities: landscapes of group settlement in the forest districts of Western Australia in the 1920s.* Landscape Research, 27, 1, 81-101.

Brunger, A.G. & Selwood, J., 1997. *Settlement and land alienation in Western Australia: the shire of Denmark.* Journal of Historical Geography, 23, 4, 478-495.

Constantine, S., 1980. *Unemployment in Britain between the wars.* Longman, Harlow, 119 p.

Curry, G.N., Koczberski, G. & Selwood, J., 2001. *Cashing out, cashing in: rural change on the south coast of Western Australia.* Australian Geographer, 32, 1, 109-124.

Gabbedy, J.P., 1988a. *Group Settlement. Part 1. Its origins: politics and administration.* University of Western Australia Press, Nedlands, 240 p.

Gabbedy, J.P., 1988b. *Group Settlement. Part 2. Its people, their life and times: an inside view.* University of Western Australia Press, Nedlands, 588 p.

Haslam McKenzie, F., 2004. *Tourism Opportunities and Dilemmas for a Rural Tourism Destination.* Sustaining Regions, 4, 4-18.

Haslam McKenzie, F., 2010. *Sea change, second homes and planning in Western Australia.* In: Alexander,

I., Greive, S. & Hedgcock, D. (eds.), Planning perspectives from Western Australia: a reader in theory and practice, Fremantle Press, North Fremantle, pp. 104-120.

Jones, R. & Birdsall-Jones, C., 2008. *The contestation of heritage: the colonizer and the colonized in Australia.* In: Graham B. & Howard P. (eds.), The Ashgate Research Companion to Heritage and Identity, Ashgate, Aldershot, pp. 365-380.

Jones, R., Wardell-Johnson, A., Gibberd, M., Pilgrim, A., Wardell-Johnson, G., Galbreath, J., Bizjak, S., Ward, D., Benjamin, K. & Carlsen, J., 2010. *The Impact of Climate Change on the Margaret River Wine Region: Developing Adaptation and Response Strategies for the Tourism Industry*. CRC for Sustainable Tourism, Gold Coast, 84 p.

Kluczka, G., 2004. *Theory and Practice of Sustainable Rural Development.* In: de Souza Mello Bicalho, A.M. & Hoefle, S.W. (eds.), The Regional Dimension and Contemporary Challenges to Rural Sustainability. Laboratorio de Gestao do Territorio, Universidade Federal do Rio de Janiero, Rio de Janiero, pp.7-13.

Meinig, D.W., 1962. *On the margins of the good earth: the South Australian wheat frontier 1869-1884.* Rigby, Adelaide, 231 p.

Pierce, J.T., 1998. *Sustaining rural environments: widening communities of knowledge.* In: Bowler, I.R., Bryant, C.R. & Huigen, P.P.P. (eds.), Dimensions of sustainable rural systems. Netherlands Geographical Studies, 244, Utrecht and Groningen, pp. 21-44.

Selwood, J., Curry, G. & Jones, R., 1996. *From the turnaround to the backlash: tourism and rural change in the Shire of Denmark, Western Australia*. Urban Policy and Research, 14, 3, 215-225.

Sorensen, T., 2004. *System sustainability versus place sustainability?* In: Bicalho, A.M. & Hoefle, S.W. (eds.), The Regional Dimension and Contemporary Challenges to Rural Sustainability. Laboratorio de Gestao do Territorio, Universidade Federal do Rio de Janiero, Rio de Janiero, pp. 40-56 13.

Steinbeck, J., 2012 *The grapes of wrath.* Viking, London, 464 p.

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