

Remembering Rain, Deciphering Drought:

Climate and the role
of perception in land
management

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Just give me ten or twelve inches of rain between now and October. Give me a couple of good seasons. You see, I have faith in nature. She sends drought for a reason—to rest the soil. Mind you, she’s been overdoing it a bit. But I haven’t lost faith.¹

The northwest plains of New South Wales were a place of promise to the twenty-two families who settled at Yallaroi in the late 1950s. A former pastoral station of more than 200,000 acres, the bulk of Yallaroi was divided up for soldier settlement in 1957. But the settlers on Yallaroi came into difficult times during the droughts of the mid 1960s. The combination of small blocks, high debt and scant rainfall took its toll. As drought went on the sheep ate the very grass seeds out of the cracked earth. Hand-feeding stock was costly and those farmers without the necessary capital, or ability to increase debt, shot weakened stock rather than leave them in lifeless paddocks at the mercy of the crows. But at the height of the 1966 drought these soldier settlers had not lost hope. As the above statement by Hugh Robb illustrates, farmers had faith in nature—they were convinced the good seasons would return.²

This article examines the response to drought in New South Wales in the 1960s. It has been argued that historically drought was disregarded—that rural producers were either caught unawares or were slow to learn the lessons of previous drought. This article both challenges this conclusion and extends the examination of drought response in New South Wales to incorporate the experiences of rural producers to a climate regime that had, in the previous fifteen years, been predominately wet

¹ Hugh Robb, quoted in Kay Keavney, ‘Northwest farmers face drought with the courage of desperation and faith,’ *The Australian Women’s Weekly*, 25 May 1966, 10-12.

² Keavney, ‘Northwest farmers,’ 10-12.

due to the negative cycle of the Inter-decadal Pacific Oscillation (IPO).³ Although these droughts were severe and caused much hardship this article argues that official alarm about drought was not shared, to the same degree, by rural producers. It shows optimism about the climate was grounded in the prior experience of higher than average rainfall for a sustained period during the 1950s and early 1960s. It documents the persistence of climate optimism in the rural sector in the face of a fall-off in rainfall. In so doing, it contends that the relationship of Australians with climate and the management of the environment has been propelled by both the immediate experience of rain and by its memory.

By examining the importance of inter-decadal climate cycles this article not only adds to the understanding of the influence of longer-term climate patterns on environmental appraisals in Australia but also argues for a broader study of climate history; one that gives voice to the role that perceptions of climate play in the crafting and application of land management strategies. Within the context of the current period of human-induced climate change, an historical focus on perceptions of climate and their potent effect on behaviour is essential to inform contemporary public debate and environmental policy implementation.

Scholars have argued that drought was not planned for; that each time the rain failed, the paddocks dried and the stock and crops perished, the farmer was caught by surprise. Les Heathcote, for example, ascribed the failure to recognise the significance of drought as partly derived from patriotism – a reluctance to see any fault in the environment, particularly when it was hoped that systems of more intensive land use could be put in place.⁴ Following on from Heathcote, Jenny Keating saw the Federation Drought from 1895 to 1903 as an example of the reluctance to view drought ‘as an inevitable and natural occurrence.’⁵ That Australia was a civilised colony able to cope with the catastrophe of drought was a matter of ‘national pride’.⁶ But the historical record does not provide evidence of this. As Don Garden argues:

It has become something of a cliché that Australians have refused to accept that droughts are a natural part of the climate, but see them as something of an aberration. As soon as drought is ‘broken’ so it is said, Australians lapse back into thinking that ‘normal’ times

³ The Inter-decadal Pacific Oscillation (IPO) is a long-term climate cycle of fifteen to thirty years duration in which the rainfall in Australia can be significantly reduced or enhanced. Its significance in the period covered by this article is that the IPO was negative, or cool, which intensified La Niña events. La Niña is one cycle of El Niño Southern Oscillation (ENSO). La Niña events in Australia are associated with higher than average rainfall. The combination of a negative IPO and a La Niña event is that rainfall is significantly increased over a prolonged period, that is the La Niñas occur more frequently and are more intense. As a result the 1950s in NSW was a very wet decade. The influence of the IPO subsided in the mid 1960s but intensified in the early 1970s. This negative IPO cycle began in 1946 and ended in 1975. For a discussion of the interaction between ENSO and the IPO, see S. Power, T. Casey, C.K. Folland, A. Colman, and V. Mehta, ‘Inter-decadal modulation of the impact of ENSO on Australia,’ *Climate Dynamics*, Vol. 15, (1999), 319-323.

⁴ R.L Heathcote, ‘Drought in Australia: A problem of perception,’ *Geographical Review*, Vol. 59, No. 2, (April 1969), 175-194.

⁵ Jenny Keating, *The Drought Walked Through: A history of water shortage in Victoria*, (Melbourne: Department of Water Resources Victoria, 1992), 80.

⁶ Keating focuses on the denial of drought as a ‘permanent feature’ of Australian life and what she claims has been a reluctance to plan for it. She also argues, in a somewhat contradictory fashion, that the attitude that ‘drought is a problem that can be solved or beaten’ has persisted until the present. *Ibid.*, 6-9 and 80.

have returned and are caught unawares and unready when the next drought arrives. While that may be true in some cases, I believe it is largely a myth.⁷

This article reinforces Garden's argument but looks to long-term climate cycles to decipher what farmers perceived 'normal' times to be and how this influenced management practice and drought preparedness. Drought, Tim Sherratt argues, is a risk that the successful farmer has to learn to manage.⁸ But severe drought was a risk that the rural producer of the 1960s saw as unlikely and one that it was uneconomic to plan for. Prior to the droughts of the mid 1960s, rural producers had benefitted from a long run of good seasons with relatively high prices for wool and wheat, particularly in the early 1950s. Moreover, the droughts in the 1960s came in the middle of a wetter than usual climate cycle. Taking a long-term view of climate, in general terms it was a dry patch in a wet three decades. As a result the perception of drought by those who observed seasons on the land over many decades in New South Wales was that drought at this time was not frequent and only occasionally severe.

To a large extent this perception that drought was an aberration stems from attempts to change thinking: from experiencing drought as a natural disaster to accepting drought as an event that could be managed. Government policy approaches shifted to reflect this. The policies of the 1970s that sought to re-establish the status quo that existed in primary production before drought were abandoned by 1990 in favour of policies that strove to mitigate against, and plan for, drought.

What was gauged as a lack of planning by farmers for drought had bothered analysts as well as governments. At the end of a comparatively dry decade, the geographer Les Heathcote focussed on the perception of drought as one of the prime reasons for the inability of country Australians and governments to cope with it. In an address in 1967 to the South Australian branch of the Royal Geographical Association of Australasia, Heathcote argued that drought was viewed as abnormal. It had long been disregarded, partly because its impact was obscured due to the high instability of rural production. Heathcote further noted that it was difficult to calculate the cost of drought, even at the station level. On a state and national basis these costs could remain hidden due to the fact that drought was usually regional, and the length and scale of drought varied with each episode. The failure of official rural policy, such as allocating blocks that were too small to be farmed economically, was one of the reasons drought had not been faced squarely, Heathcote argued. When it had, drought was cast as a temporary aberration, in a normally benign climate. He noted that it was not until 1965 that the Commonwealth Bureau of Meteorology had set up a 'Drought Watch'. Before that, he commented, 'like Alice they kept their eyes shut and hoped the bogey would go away.' Heathcote was convinced that official disregard for drought planning was at the core of the problem.⁹ However, he was also critical of management by rural producers. They did not insure against drought losses. Nor did they store sufficient fodder or restrict land use. Even worse, this practice had been endorsed by some agricultural economists as 'wise policy' in semi arid regions.

7 Don Garden, *Droughts, Floods and Cyclones: El Niños that shaped our colonial past*, (North Melbourne: Australian Scholarly Publishing, 2010), 146-47.

8 Tim Sherratt, 'Human Elements,' in *A Change in the Weather: Climate and Culture in Australia*, ed. Tim Sherratt, Tom Griffiths and Libby Robin, (Canberra: National Museum of Australia Press, 2005), 6.

9 Heathcote, 'Drought in Australia,' 175-194.

While Heathcote blamed both the farmer and his advisors, he saw as the root cause official inaction due to the perception of drought as a quirk of climate rather than a recurring feature.¹⁰

On reading first-hand reports of drought in the 1960s it is difficult to agree with Heathcote that drought was disregarded by farmers and pastoralists, to the extent that he suggested that it was not seen as a normal part of the climate cycle. While the losses were at times very high and the personal hardship immense, this did not mean that farmers discounted drought in their planning. Rather it can be seen that the extent to which they planned for drought was governed by their experience of climate and good seasons impacted on their view of what the future held. Wallace Gilmour, for example, was struggling to keep his stock alive by handfeeding during the drought in the spring of 1965. The bare paddocks of his holding, Mount Roo, in the state's northwest, were typical of not only that district but also of many properties across New South Wales, parts of Victoria and Queensland. But the farmers and pastoralists in this district were waiting for the rain that they were sure would come. As Gilmour's neighbour commented, 'You know, there has not been a drought yet that wasn't broken.'¹¹ While producers did not regard drought as abnormal, they did see severe drought as unlikely. This is understandable, given their recent experience of a run of good seasons for more than a decade.

Neither is it easy to agree that there was a lack of official concern regarding drought. The emphasis put on the conservation of water seems to suggest an interest in arresting the effects of drought and a wish to plan for its eventuality. Indeed the Federal Government's policy in the mid 1960s, including spending on rural reconstruction and water conservation, appear to bear this out. At state level New South Wales was concerned enough to establish the Select Committee of the Legislative Assembly Upon Drought Relief. Its findings and the witness testimony from that inquiry suggest that the perception of drought was crucial, as Heathcote argues. But the reasons the inquiry proceeded and the attitudes in place at the time are revealed in the questioning of the commissioners. They display a belief that the responsibility for mitigating drought rested primarily with the producer. Moreover, the commissioners were exasperated by answers from witnesses that contradicted or challenged this belief.

Rural producers at times displayed what Heathcote described as a disregard for drought, but not a disbelief in the inevitability of drought. That disregard arose from a belief that severe drought was infrequent and unpredictable, and therefore should not or could not be planned for. As agricultural economists agreed at the time, it was not good business practice to prepare for extensive drought that would only occur occasionally. I argue that this reading of climate was based on the previous fifteen years and particularly on the decade of the 1950s when wet seasons, rather than dry ones, were predominant.

During the 1960s the impact of climate was accentuated by a disparity in the ability of rural producers to weather changing conditions. The difficulty of drought put more demands on smaller operators and left in tatters the dream of settling a robust band of yeoman farmers on the land. Changing conditions meant the pressure on farmers was to 'get big or get out.'¹² These changes

¹⁰ Ibid.

¹¹ Merton Woods, 'Lamb bars helped keep poddies alive in drought,' *The Australian Women's Weekly*, 3 November 1965, 21.

¹² Steven Hooper, Peter Martin, Graham Love and Brian S. Fisher, "Get big or get out": Is this mantra still

included a reliance on mechanisation and advances in technology such as aerial crop dusting, requiring substantial capital investment in plant and machinery. As Bolton notes: 'The farming districts were no longer the potential home of a bold yeomanry but an increasingly efficient workshop of large-scale rural capitalism.'¹³

The exporting role of the rural industries remained highly significant. Although Australia grew rich on the discovery of mineral reserves in the 1950s and 1960s, the rural industries were still of a national, albeit declining, importance.¹⁴ This led to much rumination on how to drought-proof the countryside. While the official view of drought was that more planning needed to be put in place, rural producers held to a faith in the return of good seasons – small operators had little choice if they wanted to stay on the land and more substantial producers because it made good economic sense.

Douglas McMaster, a former president of the New South Wales Graziers' Association and a long-established pastoralist, weathered the droughts in the 1960s, but at a cost. His north-western pastoral property of Inverness had been in the McMaster family for generations, having been subdivided from the original family property Croppa, a holding of 21,500 acres. During the 1964-66 drought McMaster outlaid considerable financial reserves to keep stock alive on Inverness. Losses were to be expected as the entire wheat crop had failed in 1965, lambing was postponed due to the weak condition of the ewes, the paddocks were bare of feed and McMaster had been hand-feeding his stock for almost a year. As he commented in 1966: 'My losses? All factors considered, loss of income, loss on my cattle, cost of hand-feeding, loss of productivity, I'd estimate them at around \$30,000 so far.'¹⁵

McMaster was not the only one in trouble. Due to the substantial size of his property he was in a relatively stable position. But soldier settlement schemes had seen many of the big pastoral stations of the north-western plains divided into smaller units, and these smaller operators suffered during the 1960s droughts. On Emoh Ruo, for example, a 6000-acre property in the same district as Inverness, 1000 sheep had died by May 1966.¹⁶ The cattle had been sent away on agistment and the wheat crop had failed. Samuel Woods had been on Emoh Ruo for forty-six years. In an effort to save some of the surviving sheep he had been hand-feeding for a year, paying costs for lucerne hay that escalated in price from \$10 to \$90 a ton. Each ton was consumed by the starving sheep in a matter of days. But for Woods the dry northwest plains were still the place of promise that they had been forty-six years earlier when he cleared his land. A bumper wheat crop in 1964 had put him ahead and enabled him to better withstand the drought of the next two years.¹⁷

appropriate for the new century?', *ABARE Conference Paper 01.12* (paper presented at the 24th Biennial Conference of the Australian Society of Animal Production, Adelaide, 11 July 2002), http://adl.brs.gov.au/data/warehouse/pe_abarebrs99000832/PC12385.pdf.

¹³ Geoffrey Bolton, *Spoils and Spoilers: a history of Australians shaping their environment*, (North Sydney: Allen & Unwin, 1992), 154.

¹⁴ J.M. Powell, *An Historical Geography of Modern Australia: the restive fringe*, (New York: Cambridge University Press, 1988), 198.

¹⁵ Keavney, 'Northwest farmers,' 10-12.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

Down the road from Emoh Ruo, on Croppa Creek Road, Hugh Robb was surveying paddocks bare of both sheep and grass, and a shrivelled wheat crop. He had been hand-feeding the sheep on his smaller homestead lease at a cost of \$2000 but had lost the lot except a few hundred he had managed to sell. There would be no income for the 1965/66 year, Robb was heavily in debt and still to pay off 750 sheep he had bought prior to the drought. Robb had a wife and five children and had come to the northwest to give his family a home and the children a chance of a good education. At the height of the drought he had no intention of losing his property and was waiting for the return of good seasons. As Robb commented: 'We'll hang on somehow. We've got no choice.'¹⁸

The northwest of New South Wales had been the hardest hit in the droughts of the mid 1960s. However, as discussed earlier, these droughts occurred in the middle of a very wet thirty-year period. From a climatic point of view, the years from 1949 to 1956 had seen generally average to well above average rainfall, with the exception of the drought year of 1951/52. The La Niñas of 1950/51, 1955/56 and 1956/57 had contributed to this favourable rainfall period. Conditions dried off in the El Niño year of 1957/58. But above average rainfall returned and 1962/63 was noted as a year of excellent pasture growth. The next five years were well below average. The 1963/64 El Niño was classed as weak but strongly impacted western New South Wales. It was followed by the stronger 1965/66 El Niño which caused drought in the New South Wales/Queensland border region. The end of the decade brought another drought, that of the 1969/70 El Niño which once again saw very dry conditions in the northwest of the state. The IPO during this time had changed from very cool in the 1950s to slightly cool during the 1960s but was to return to very cool by the end of that decade. Accompanying the intensification of the IPO were several good seasons in the early to mid 1970s.¹⁹

The combination of drought and a need for more capital expenditure to accommodate the increased reliance on mechanisation and technology in the early to mid 1960s put rural producers in a parlous position once drought worsened. Due to the importance of the rural sector, official alarm triggered inquiries into rural industry and in particular drought mitigation. The Prime Minister, Harold Holt, summed up the position of the Federal Government in 1966:

The drought itself has demonstrated a need for more investment in rural industries to strengthen them in various ways against a recurrence of drought ... This need for drought mitigation work merges into the wider need for increased capital development in rural industries.²⁰

The Federal Government allocated \$25 million for drought relief in 1965-66 and an additional \$35 million in 1966-67. The national water-resources development program, announced in June 1967, saw a total investment of \$50 million in water-conservation measures.²¹ Due to the severity of the

18 Ibid.

19 Greg McKeon et al, *Pasture Degradation and Recovery in Australia's Rangelands: Learning From History*, (Indoorpilly: Queensland Department of Natural Resources, Mines and Energy, 2004), 48. Australian Bureau of Meteorology, 'El Niño-detailed Australian Analysis,' <http://www.bom.gov.au/climate/enso/enlist/index.shtml>. NSW experienced higher than average rainfall due to La Niña from June 1970 to March 1972 and then again from June 1973 to March 1976. Farm income during this period was higher than it had been in the previous 20 years. Working Group on All Aspects of Rural Policy in Australia, *The Principles of Rural Policy in Australia: A Discussion Paper*, (Canberra: Australian Government Publishing Service, 1974), 16-17.

20 Commonwealth Parliamentary Debates, House of Representatives, Canberra, March 8, 1966, 31.

21 Heathcote, 'Drought in Australia,' 175-194.

drought the affected states had sought Commonwealth assistance. The problem of drought was firmly back on the national agenda.

In New South Wales the Select Committee of the Legislative Assembly Upon Drought Relief, was appointed in late September 1965. The Punch Inquiry, as it became known, was to report largely on what measures could and had been taken to 'control' both the current and future droughts, and what forms of relief and assistance could be provided by government. The problems of low rainfall in the countryside were being compounded by falling prices for wool and stock. Many producers, in order to recoup losses, had attempted to retain high stock numbers – stock that had been easily carried during the lush year of 1962/63. But subsequent drought and sliding market prices had taken their toll on rural enterprise and the environment. The bared and scalded plains of inland New South Wales etched disquiet deep into the psyche of planners and governments.

As the drought bit hard, embattled settlers could not be left to their fate at the dual tragedy of high debt and a difficult climate, and so relief was organised in the form of subsidies for feed and transport and work on projects such as road building in the worst hit rural districts. Men from Yallaroi were 'on the Shire' as they called it – fathers and sons, working at road building to earn some income while the women were left on the properties to do the bulk of the farm work. In 1965, the State Government announced grants totalling £64,000 to twenty-nine country shires and municipalities to provide drought unemployment relief. The grants initially were limited to the drought-stricken areas of Gunnedah, Greater Cessnock, Maitland, Moree, Taree, Wingham, Dungog, Gloucester, Hastings, Manning, Port Stephens and Stroud. The State's resources appeared stretched to its limits and repeated appeals were made by the New South Wales Government for federal assistance in the form of drought relief payments. Agreement was not reached until almost the end of 1965. As the *Newcastle Morning Herald* editorialised in October, while the State Government had provided relief to farmers and graziers in the form of fodder supply and various subsidies, what rural producers needed was finance for restocking. The Commonwealth Government could not justify its 'detachment from financial responsibility in a drought which is seriously affecting the pastoral and dairying industries in two states and causing damage which will be affecting national income for years.'²²

But while drought relief was the immediate answer it was not seen as the long-term solution to the problems in the countryside. The Punch Inquiry not only examined relief measures, it also questioned drought preparation and asked whether drought preparedness was a matter of individual ability, planning and knowledge or official intervention.

This point about official intervention illustrates how management was impacted by perceptions of climate. While climate optimism on the part of rural producers was sourced from the experience of a run of good seasons in the 1950s, the challenge that drought presented alarmed governments and planners who saw climate in more immediate terms. The official view of drought demonstrated a lack of faith in nature. Planners were not prepared to invest the future of rural industry in the

²² '£64,000 State drought relief,' *Newcastle Morning Herald and Miners' Advocate*, 22 September 1965, 4. 'Talks invited on interim Federal drought pay-out,' *Newcastle Morning Herald and Miners' Advocate*, 13 November 1965, 3. 'Drought apathy,' *Newcastle Morning Herald and Miners' Advocate*, 15 October 1965, 2. Keavney, 'Northwest farmers,' 10-12.

hope of good seasons. Rather they saw in drought a problem that could be solved through good management.

The level of official concern escalated during the course of the 1960s. As Leon Punch, the Chairman of the Inquiry stated, the committee examined what measures had been taken by the State Government to deal with recent droughts in New South Wales and to see whether they were sufficient. The committee toured the State to take submissions from organisations and individuals regarding drought and drought preparedness in both the short and the long term. According to Punch, the government established the committee because it

considered that in the past there have been droughts but that generally speaking when rain came people were inclined to forget about drought relief measures and to forget all about them until the next drought came along and losses were extremely high. Heavy financial losses to the State were involved and the whole economy of the country suffered.²³

The reaction of primary producers to the suggestion that they were responsible for the impact of drought due to their lack of planning is also pertinent. The testimony of witnesses to the Punch Inquiry indicates that rural producers were confident in their assessment of the climate and in their management of their farms and holdings. But the current drought was not what producers considered to be the norm. The 1965/66 drought was exceptional in both its severity and its duration, and as such outside the bounds of usual management regimes.

It was not surprising, in the opinion of many witnesses to the Punch Inquiry, that some farmers would not be able to cope with such an extreme climate event. For example, grazier Richard Edmonds of Bungendore on the Southern Tableland observed it was possible to conserve fodder for stock feed in case of drought on the bigger properties but many of the smaller operators lacked both land and equipment. In New South Wales at the end of 1965 the situation was that most of the state was left with little or no conserved fodder. As Edmonds argued, 'unfortunately there are many who have neither the fertile land or equipment nor the finance to commence such an undertaking. Of course adequate water supply according to carrying capacity is most essential in any case.'²⁴

The bigger operators were hard-pressed as well. Grazier James Maple-Brown was a Goulburn pastoralist who had built up the family property Springfield – one of the most successful merino breeding stations in the district. He knew that not all droughts could be planned for: 'Although I am a practicing farmer and I have some irrigation, I do not wish to give the impression that I have all the answers to drought. People who farm learn very quickly that nature can make us look stupid, however hard we work.'²⁵ This did not stop farmers from 'endeavouring to do their best to use whatever methods come to hand to enable you to keep your production at a reasonably stable level.' This was, Maple-Brown noted, in the 'best interests of your own business and in the best

23 L.A. Punch, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 46-7.

24 Richard Edmonds, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 54.

25 James Irwin Faithful Maple-Brown, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 53.

interests of the country.’ In the end he saw nature as the final arbiter in success or failure. ‘Unless you get a certain amount of aid from nature you cannot do anything.’²⁶

As an experienced grazier of substance Maple-Brown’s evidence was hard to ignore. But the committee did not want producers to rely on the favours of nature. They sought a remedy to the problem of drought, whether it was a major or minor event, envisioned as a change in the way poor seasons were managed. Climate should not dictate its terms. Unfortunately, unlike the rural producers they were questioning, the committee members were not as cognisant of the environmental limits of the continent. In their minds the climatic impediments on rural production brought about by drought could be negated by the recognition that all droughts could be planned for and appropriately managed.²⁷

The claim that droughts were disregarded is evident in this question from Commissioner Rex Jackson: ‘After droughts end the majority of primary producers forget all about droughts?’ and in his subsequent question, ‘Have we not a record of drought over the past century, but very little conversation that eventuated from them?’²⁸ However, it was not the occurrence of drought that producers disputed; rather it was who knew best about farm management. As one witness told the inquiry, there were many producers capable of ‘riding out the drought.’ Importantly pastoralists, graziers and farmers argued that drought preparedness was unnecessary and uneconomic to the degree being suggested by the committee.²⁹

Maple-Brown’s evidence, for example, demonstrates an understanding of economies of scale in production, the negative impact of over capitalisation and his belief that he adequately prepared for what he termed ‘normal’ drought. He ran cattle and sheep for both meat and wool on his property of 3000 acres and had a second property of 200 acres on which he grew irrigated fodder crops. His farm was fully mechanised and he stored 2000 tons of silage a year and fed out around 1500 tons. The stored fodder could carry his stock for a year in the event of a poor season and a drying off of feed. But occasionally a drought came along that taxed even his reserves. As he explained to the committee: ‘About once in eight years I would be caught but I would get over most dry periods and I have got through this period without reducing my breeding stock but I have sold surplus.’³⁰ Maple-Brown recognised that he was influenced by his experience of climate over the long term. He had lived through the severe droughts of the 1940s working alongside his father.

26 Ibid.

27 A concern about the impact of farming methods on the environment was heightened by drought. But this did not prevent official opinion from seeking technocratic solutions to the problems of lost production during periods of climatic difficulty. As Hutton and Connors argue, science had never been as glamorous and exciting as it appeared in the twenty years after World War Two. Scientists became enmeshed in the interests of private industry and industrial growth. Drew Hutton and Libby Connors, *A History of the Australian Environment Movement*, (Cambridge: Cambridge University Press, 1999), 97.

28 Rex Jackson, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 56.

29 Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 54.

30 James Irwin Faithful Maple-Brown, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 57-58.

I have always been a man for conservation, probably because I grew up in the 1944 drought, when I finally started to have anything to do with management it was probably at that age I gained that impression. But with the good seasons there has been a feeling that we can carry a lot of sheep without conserving fodder. This trend of thought is dangerous if you build up numbers without having reserves to fall back on.³¹

In response, Commissioner Jackson pushed the point of drought preparedness: 'If you had not conserved fodder and conserved water to the degree that you have, the results could have been devastating to yourself, even with a drought that was not as bad as this has been?' Maple-Brown answered that stocking rates were related to drought impact, that he would not have been devastated, as he would not have carried as much livestock. It was in part good management, but the climate also took its toll. The severity of the drought mattered a great deal. Maple-Brown had managed to maintain his high level of production through growing some fodder crops by irrigation as standby feed. He stressed that he anticipated that his reserves would be exhausted if the drought went on for another eighteen months. But, as he told the committee, he did not expect this to happen. A prolonged drought was 'very unlikely in this climate.'³²

Other witnesses also disputed the frequency of drought. Commissioner J.B. Simpson claimed drought occurred at least once in every five years. He was rebuffed by his witness James Phillips, a grain merchant who, with around forty years experience in Victoria and New South Wales, was the managing director of several private companies that dealt in rural supplies. Commissioner Simpson held to his view: 'Oh yes I cite 1896, 1903, and the drought of 1939-44.'³³ But the bulk of Phillips' experience had been in the period from the end of the drier positive IPO cycle that ended in 1946 and then in the wetter negative cycle that followed. His knowledge of climate was, therefore, mostly from the point of view of good seasons. He told the committee:

I have been in the produce game for forty years and I know that 1939 was the wettest year in the Albury district. It was dry in 1940/41, but the demand for fodder was not high. It might be dry in the Central-west for six months but reserves of fodder would be available from the Dubbo district and nearby. I know that 1937/1938 was a serious drought year and the next one was 1944/45, but since then with the exception of a dry pinch on the North Coast or the South Coast there has been nothing that you could call a serious drought.³⁴

As the inquiry proceeded, the committee showed a recognition that producers' perception of climate had been influenced by the run of good seasons that preceded the droughts in the 1960s. For example, Commissioner Mackie's question to Wanganui grazier, Robert McGeogh, suggested that producers had not tackled the problem of water storage sufficiently due to prior good seasons. As Mackie asked:

31 Ibid, 58.

32 Rex Jackson and James Irwin Faithful Maple-Brown, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 58.

33 J.B. Simpson, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 65.

34 James Dudley Neil Phillips, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 65.

When you mention water on farms, you agree that generally farmers have not made enough provision for water. Is this because we have had a run of about twenty good seasons and there has not been such a need for conservation, and farmers have become a little careless about water supplies?³⁵

McGeogh agreed there had not been a serious drought in the Wagga Wagga region since 1944/45. He told the inquiry that, as a result, graziers had increased their stocking rates in the higher rainfall areas. While most farmers and graziers had fodder sufficient to tide them over for a year, McGeogh noted that few conserved feed or water for stock in excess of this.³⁶

The committee remained firm in its opinion that farmers had not stored adequate fodder or water in preparation for drought and sought the underlying reason. It pursued the matter of why drought was disregarded. As Mackie asked: 'What is the cause of that, lack of finance or the fact that after drought has ended the farmer looks forward to good seasons again?' Witnesses were hard-pressed to convince the committee that the current drought was exceptional. McGeogh attempted to explain the practicalities of the matter as it related to climate and farm management. There were many properties on which no fodder was conserved at all, McGeogh noted, as it was difficult to guard silage against vermin, weevils and wet weather. He said this had become common practice as it was cheaper for the grazier to buy in feed from outside the district when it was needed. As Phillips had told the committee, in his experience droughts were seldom widespread. There was always somewhere from which fodder could be bought.³⁷

The practicality of buying in feed as a 'solution' to drought did not satisfy the committee. The divergence in perception about the climate was obvious. While producers saw the severity of the 1960s droughts as unusual, official opinion, as embodied in the committee of inquiry, believed these droughts were devastating, recurring and putting the rural industry and all who depended on it at risk. Commissioner Mackie noted: 'In the north and north-west primary producers are facing bankruptcy. Would it not have been better for them to have made some provisions for the drought which must inevitably come?' McGeogh's answer demonstrates that drought was something that was seen as a business risk and not a high one at the time. Some provision had been made and it was sufficient in the eyes of the primary producer. McGeogh reiterated what other witnesses had already told the committee. Providing enough fodder for times of prolonged drought was expensive and unnecessary if it could be bought elsewhere.³⁸

The perception of drought played into the formulation of policy. In policy terms, drought was treated for many years as a natural disaster. Responsibility for responding to disasters lay with the State Government but by the mid 1960s, policy had evolved to the point where the Federal Government contributed to disaster relief on a dollar for dollar basis. The severe droughts of the mid 1960s resulted in extra federal funds to New South Wales provided through the *States Grants (Drought Assistance) Acts* of 1966.³⁹

35 G.C. Mackie, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 60.

36 Robert McGeogh, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 60.

37 G.C. Mackie and Robert McGeogh, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 60.

38 Ibid.

39 Linda Botterill and Bruce Chapman, 'Developing equitable and affordable government responses to drought

In the main drought policy has evolved from regarding its occurrence as a natural disaster to one that sees its impact as able to be mitigated by good management. This has had major repercussions on the ability of rural producers to cope with drought, not just economically, but socially.⁴⁰ In a bid to cope with drought governments have largely resorted to producer-focussed management solutions. Many of the Select Committee recommendations centred on boosting fodder and water conservation through irrigation and the regulation of rivers. The unfortunate drawbacks of some of these initiatives are patently obvious, for example in the results of the problems of salinity from irrigation. Less thought appears to have been given to operating within the environmental limits of the Australian continent. As we saw in the 1960s, governments were concerned with how to manage the climate rather than letting drought take its course. But producers perceived severe drought as a rare climate event and one that it was imprudent to prepare for. One of the witnesses to the Punch Inquiry summed up the position well with his comment:

If we decide that we do not want these stock losses during drought, and we are prepared to make money available to farmers to put in dams I am sure that people would put down great dams to last us over the next twenty years. However, in most cases they would not be used. In any event you cannot expect the average farmer to put sufficient water on the place to last him through the worst droughts which may come every fifty or sixty years.⁴¹

At the time he was right. The dry 1960s were a blip on the weather radar in the middle of a wet negative cycle of the IPO. Wet seasons were to rebound with a vengeance at the beginning of the 1970s.⁴²

Overall this article concludes that there was a divergence of opinion on climate in general and drought in particular in the 1960s. Rural producers saw drought as a recurring problem, but one that would be remedied by good seasons. Official opinion was that rural producers should take responsibility for drought mitigation but, in the case of severe drought, relief must be provided to restore rural production—to return the situation in the country to what was seen as the status quo. This divergence of opinion in the 1960s saw the reshaping of policy. Whereas in the 1960s drought was seen as a natural disaster, by 1990 it was viewed as an event whose impact could be mitigated by good planning.

An historical focus on perceptions of climate and their potent effect on behaviour is essential, I argue, to inform contemporary public debate and environmental policy implementation. As this article on the perception of drought in the 1960s has shown, the experience of good seasons in the decade of the 1950s due to the negative cycle of the IPO coloured perceptions of climate. It was

in Australia,' (paper presented to the Jubilee conference of the Australasian Political Studies Association Australian National University, Canberra, October 2002), <http://www.auspsa.anu.edu.au/proceedings/2002/botterill+chapman.pdf>.

⁴⁰ On the social impact of drought and changing drought policy see, L. Botterill and M. Fisher, *Beyond Drought: People, Policy and Perspectives*, (Canberra: CSIRO Publishing, 2003) and Linda C. Botterill and Donald A. Wilhitte, *From Disaster Response to Risk Management: Australia's National Drought Policy*, (Dordrecht: Springer, 2005).

⁴¹ James Irwin Faithful Maple-Brown, Parliament of NSW, *Select Committee of the Legislative Assembly Upon Drought Relief: Second Progress Report*, (Sydney: Government Printer, 1966), 45.

⁴² The negative cycle of the IPO ran from 1947 to 1976 at which point the cycle turned to positive bringing drier decades.

remembering rain, rather than forgetting about drought, that grounded faith in nature and secured optimism about the climate in those who worked the land.
