

**Drought, the Pastoral Industry and Policy Needs:
What Must Government Do Now to Ensure A Sustainable Future
for the Pastoral Industry and Regional Australia ~ FAQs**

Dr Ted Christie, 12 December 2019



Disclosure Statement

Ted Christie does not work for, consult to, own shares in or receive funding from any company or organisation that would benefit from this article, and has no relevant affiliations

TAGS: Drought; Impacts: *paddock level - property level - regional level – State/National Level*; Impacts: *ecology – economics – social*; living area; land degradation; sustainability; resilience; risk management; preparedness; self-reliance; long-term viability



*Changing land condition: Response of a native grassland community in South-West Queensland's Mulga (*Acacia aneura*) shrublands following a prolonged severe drought and grazing pressure. Resilience and sustainability are inter-dependent and mutually supporting for managing natural grazing lands as a long-term investment in the pastoral zone: See FAQ #5.*

Animal production is a business enterprise. Decisions by pastoralists must be taken within a framework imposed by regulatory controls and policies for sustainable land use, taxation situations, financial resources and economic viability, the stage of property development and the biological needs for efficient animal husbandry. **“Success or failure is largely dominated by seasons and prices, neither of which can be controlled by the pastoralist”.**

Between 2017 and 2019, severe drought developed across much of eastern and inland Australia including Queensland, New South Wales and Victoria. It also extended into parts of South and Western Australia.

This ***drought is now comparable*** with the big droughts of the past.

*An old bush adage is that if pressure is put on people,
such as climatic or economic pressure,
they put pressure on land.*

As the current drought extends and its impacts intensify, the prolonged dry conditions have prompted calls for further Federal and State government drought measures for affected landholders and regional communities.

Increasing awareness that climate change may lead to hotter and drier droughts for Australia has also heightened public support for the bush.

But what form should the measures take? Clearly, measures are required immediately that promote *cash flow*. The current situation of reduced property income because of drought is symptomatic of a “*cash drought*” in the bush.

Have we reached the stage where the immediate need is to focus on ***crisis management*** as suggested by Sky News host Alan Jones: For Australia’s Prime Minister to immediately declare the drought crisis “*a national disaster*” as “*the first step taken towards lifting up the nation, not just the bush*”?

What must Government do after this drought ends? A vision for managing future droughts must be achieved through new policies that provide *short-term, medium-term and longer-term solutions* for the pastoral industry.

But the medium–term and longer-term policy solutions to manage the effects of drought must promote more than financial aid - *such as concessional loans*.

For example, a major focus of the current policy and public debate for managing future droughts is to pursue opportunities for new or enhanced surface water storages *e.g. major water infrastructure proposals across northern Australia*. This would be a as ***long-term solution***.

The scope of this article is to review key issues that must be effectively addressed if new drought policies are to resonate with the needs of the pastoral industry. The issues are framed as Frequently Asked Questions.

FAQ #1: *Could This Drought Lead to Unintended Outcomes for Family Owned and Operated Pastoral Lands?*

From the time rainfall records commenced in 1861, it is clear that drought is a normal part of Australia's climate.

The current drought has triggered heightened concern within rural and urban communities over the effectiveness of drought management policies?

Concern is not only over the impacts and severity of the current drought.

It is also the increasing evidence that suggests climate change is driving an [increase in the intensity and frequency of hot days and heatwaves](#) in Australia, exacerbating drought conditions. Or, as [Government's Drought Coordinator-General, Major-General Stephen Day](#) comments: droughts are likely to be "*more regular, longer in duration and broader in area*".

The fact that the current drought has closely followed the Millennial drought, memories of which remain real, is also a source of concern.

*An unintended outcome
for Australian farmers and pastoralists
from new drought policies
is their potential to facilitate a change in the balance of ownership
of Australia's pastoral lands:
through corporate and foreign investment
at the expense of family owned and operated pastoral holdings.*

In this regard, the following features are relevant considerations: -

- ❖ ***Family owned and operated farms make up more than [95 per cent of Australia's broad acre and dairy farms](#).***
- ❖ ***A feature in the pastoral zone is for a low number of properties to become available for sale during a drought.***
- ❖ ***[Land sales have been down by more than 50 per cent](#) over the last five years in drought-affected regions of Australia's eastern States;***
- ❖ ***Foreign investment is heavily weighted towards livestock production.***
- ❖ ***Livestock industries account for the overwhelming majority of [foreign agricultural land ownership](#), at just over 45 million ha, or 85% of the total of foreign-owned land: -***

The United Kingdom was the largest foreign agricultural landholder in Australia in 2018, accounting for 2.6% (10.24 million ha) of all Australian agricultural land. Next highest was China (2.3% or 9.17 million ha) and the United States (0.7% or 2.66 million ha).

A **known known** (“things we know we know”) in the bush is that after every drought in the pastoral zone ends, “a run of” pastoral holdings comes on to the market for sale.

The **known unknowns** (“we know there are some things we do not know”) for this drought are the number and productivity of pastoral holdings that will come on to the market after the drought ends; and the extent corporate and foreign investment will have in their acquisition.

Comment:

There is clear evidence that decision-making by pastoralists cannot be based on drought being seen as a foreseeable or predictable risk?

Where droughts are prolonged and extreme, even the best preparedness between droughts may have limitations for ensuring the long-term economic viability of the pastoral enterprise.

Incorporating self-reliance in new drought policies as a basis for minimising financial support measures during drought must ensure that unintended outcomes are avoided. Specifically: -

To recognize that astute preparedness between droughts and prudent risk management decisions during drought may not be sufficient to effectively offset an extreme and unforeseeable drought.

There are two policy options for Government to consider.

To maintain the status quo of family owned and operated pastoral properties. The crucial need would be to introduce a creative framework that focussed on pastoral holding area and livestock carrying capacity in terms of long-term economic viability, sustainability and resilience.

Or to pursue the option of increasing the numbers of “large runs” through corporate and foreign investment i.e. to revert to the past situation in the pastoral zone that existed in Australia prior to the introduction of the “closer settlement” land policy.

An assessment of the unintended outcomes – ecological, economic and social - at the property and regional level, for both options, is crucial.

FAQ #2: What Unifying Principles are there for Drought Policy that are an Accepted Body of Knowledge in Rural Science and Land Administration?

The drought management principles of *self-reliance* and *preparedness for drought* have their origins in Australia from rural science R&D and land administration, some 50-60 years ago.

Their sources? Two influential Australians who have made significant contributions to sustainable pastoral land use – from the perspectives of land administration and animal production.

☑ Self-Reliance – Land Administration

Consider the following statement made in 1959 by the Inquiry Commissioner of the [Land Settlement Advisory Commission](#) in Queensland:

“Grazing is an industry of varying fortunes. It’s success or failure is largely dominated by seasons and prices, neither of which can be controlled by the grazier...”

The area of a holding must be of such a size so that it can be used wisely and preserved, and able to withstand an economic siege. [The grazier] must stand on his own feet and not be always on the doorstep of the Government looking for help; hence the need for giving [the grazier] an adequate living area”.

The Commissioner was Sir William Payne - a person who enjoyed a nation-wide reputation as a fair-minded, non-partisan, skilled land administrator with a practical turn of mind.

NOTE: The Living Area principle is reviewed in FAQ #4

☑ Preparedness for Drought – Rural Science

Dr George Moule, a pioneer Australian researcher of international reknown in animal production, made a long and significant contribution in regard to evaluating and prioritizing R&D needs for Australia’s wool industry.

The principles of drought management decision-making by the pastoral industry - [*published by Dr Moule in 1970*](#) - have been an accepted body of agricultural extension knowledge for almost half a century:

*Decision-making by pastoralists can be divided into decisions made between droughts **i.e. preparedness;** and decisions made during drought.*

Both are equally important.

Between droughts, pastoralists need to create liquid assets that could be applied to manage future hazards caused by drought; assets that can be readily converted into cash to meet debts or additional demands during drought.

This is not always possible;

or pastoralists may fail to establish adequate reserves.

As a result, they experience great difficulty in obtaining finance during a drought – a period when income received for livestock and livestock products (meat and wool), is also greatly reduced.

*But, if the drought continues, decision-making extends to consider the need for other possible **longer-term management strategies** – in addition to the disposal of some animals [Dr Moule's strategies are outlined: "Property Level" p. 7]*

FAQ #3: What Are Some of The Features of Environmental Impacts of Drought That Create Difficulty for Drought Policy-Making?

As drought lengthens, the environmental impacts intensify over time at a number of levels. **Impacts at all levels must be addressed by drought policy:** -

- The paddock level – **ecological impacts;**
- The property level – **economic impacts;** and
- The regional (and ultimately State and Commonwealth) levels – **socio-economic impacts.**

(a) The Paddock Level

Land degradation of natural grazing lands in the pastoral zone is not a continuous process, year in, year out.

It is restricted mainly to periods of prolonged drought because of increased grazing pressure by livestock and marsupial numbers on the much lower forage production that is available.

The **condition of natural grazing lands** (“*ecological health*”) declines during a prolonged drought and high grazing pressure. Land degradation may then become an issue and have impacts on long-term sustainability.

Comment:

The use of artesian water enabled the pastoral industry to expand into and graze larger areas of inland Australia.

The red kangaroo, the most widespread of the inland kangaroos, benefited from the use of artesian water by the pastoral industry; their range and abundance expanded as they were no longer restricted to permanent watercourses and watering holes.

(b) The Property Level

A key goal of drought management for a pastoral holding is to provide sufficient food and water to maintain animals; and to preserve a number of breeding animals to rebuild flocks and herds after the drought ends.

Most initial stocking decisions are based on the hope that the drought will only be short-term; that the drought will end during the next period of most reliable rainfall.

But, if the drought continues, decision-making at the *property level* extends to consider the need for other possible **longer-term management strategies** other than the disposal of some animals e.g. *Hand-feeding of animals, the cutting down of edible trees and shrubs, agistment, further reductions in animal numbers – and in the extreme case, destocking.*

Comment:

Longer-term drought management strategies often result in a high debt burden for pastoralists because of reduced cash flow and capacity to borrow. This issue resonates with the current drought impact and the immediate need for effective financial measures.

Maintaining a high equity in a pastoral holding is one cornerstone to facilitate the capacity to borrow to sustain cash flow when income is reduced during drought.

*Reduced cash flow
As well as the capacity to borrow,
limit the goal of self-reliance during a prolonged drought.*

Where cash flow becomes problematic at the property level, adverse socio-economic impacts flow-on to the region, State and nation.

(c) The Regional (State/Commonwealth) Levels

As drought lengthens throughout *the region*, problems of financial viability at the property level flow on to cause *a decline in the economy of the region, the State and ultimately the nation.*

With fewer job opportunities and an increase in *unemployment* in rural communities, the population of the region falls as people seek jobs elsewhere; population drift to the coast and cities occurs.

The *financial viability* of local businesses and banks - as well as professional (*e.g. medical, dental*) and trades services - are threatened; Government services may not attract the same level of support as in the past with the result that hospitals, education and postal services could be wound down, or even close.

Case Study:

During the 1965-73 drought, Charleville in SW Queensland had 3 GPs, a general surgeon, a medical superintendent at the Base Hospital, and the Flying Doctor; 2 dentists (one in private practice, one at the Base Hospital); 3 pharmacies; and 6 Banks.

In 2019, Charleville has one GP, the Flying Doctor, one pharmacy, no dentist & 2 banks. Median House Value \$75,000 (REIQ, Dec.2019).

FAQ #4: *Should Living Area Standards be the Foundation for New Drought Policy for Australia's Pastoral Industry?*

The concept of *living area* has been a foundation for land administration since *Queensland's Land Act* came into force in 1927. Living area standards are generally applied as sheep or cattle numbers; but where appropriate, standards for arable land are given as hectares.

The current statutory definition¹ for "Living Area" is: -

"Living area" means the area of grazing or agricultural land that will be adequate to enable a competent person to derive from the working of the

¹ [Queensland's Land Act 1994 \(Schedule 6, Section 3, Dictionary\)](#)

land, according to the use for which the land is suited, an income adequate to ensure a reasonable standard of living for the person, the person's spouse and dependent children, **as well as provide a reserve to meet adverse seasons and the cost of developing and maintaining the land at a sustainable rate of production throughout average seasons**, having regard to—

(a) the locality of the land; and

(b) the nature of the land; and

(c) the potential of the land for sustainable development; and

(d) the distance of the land from transport facilities and markets.”

Living area standards for pastoral holdings are defined as the number of sheep or cattle required for an economically viable flock or herd size.

The area of land required to support the economically viable flock or herd size will depend on the carrying capacity of natural grazing lands in the pastoral zone.

Productivity and carrying capacity varies enormously across Australia's natural grazing lands. Key factors influencing livestock carrying capacity in the pastoral zone of Australia are: *Climate/rainfall, soil fertility, the mix of land types and their annual variability in forage production, the condition of land (“ecological health”) and the resilience of natural grazing lands.*

The following examples for Living Area Standards for sheep and cattle were determined by [QDNRME in July 1998](#): -

- The *economically viable flock size* required for the Mulga Lands Bioregion of south-west Queensland was based on a *Living Area Standard* of 12,500-15,000 sheep.
- The *economically viable herd size* required for the Mitchell Grass Downs Bioregion of central-west Queensland was based on a *Living Area Standard* of 2,000-2,300 cattle.
- QDNRME note that the past trend in Queensland is for *Living Area Standard* values to increase over time.

Comment

Queensland's living area standards need to be revised and updated by QDNRME. Updated standards need to take into account a range of factors that have emerged over time that impact on the productivity, sustainability and profitability of pastoral holding, including drought.

FAQ #5: What Does Resilience Mean for the Pastoral Industry and Drought

One approach to understanding the meaning of **drought resilience** is to focus on the human dimension: *The ability of pastoralists to survive a certain number of consecutive droughts e.g. through preparedness for drought.*

An additional element for drought resilience that can be applied would be the ability of a pastoralist to successfully adapt to a severe and prolonged drought through long-term management strategies that minimize the environmental - *ecological, economic and social* - impacts of the drought.

*But the “elephant in the room”
is the need for drought policy to recognize,
that resilience and sustainability
are inter-dependent and mutually supporting
for natural grazing land use in the pastoral zone.*

Comment:

For natural grazing lands and pastoral land use, the early warning signs of land degradation following disturbances, such as drought and high grazing pressure, are the loss of perennial grass ground cover and changes in botanical composition of the plant community. Land condition and productivity declines (The p.1 photos show land condition classes of “Excellent”, “Medium” and “Poor”).

The science of ecology provides an application for the use of “resilience” as a cornerstone for the sustainable use of natural grazing lands in the pastoral zone.

The meaning of resilience from ecology is based on:

- ❖ The response of natural grazing lands in the pastoral zone to disturbance during a prolonged, extreme drought; as well as***
- ❖ Their capacity to recover when the drought ends and to return close to the state that existed prior to the drought commencing.***

Natural grazing lands in Australia’s pastoral zone vary in their resilience. For some degraded natural grazing lands, recovery may be a slow, difficult process.

Conclusions

“Successive generations of [drought policy \[in Australia\]](#) have been tried, reviewed, found wanting and replaced, in a process that's depressingly circular.”

But the cumulative knowledge arising from past policy reviews should be recognized as the foundation for developing new drought policies after the current drought ends¹.

Past drought policies identify three cornerstones that, together, provide the framework for a future drought management policy for the pastoral industry: Preparedness ~ Risk Management ~ Self-Reliance.

The unifying link between these cornerstones is the concept of "Living Area". It acts as a guide as to what constitutes an economically viable agricultural enterprise. The living area concept has been a foundation for land administration since Queensland's Land Act came into force in 1927.

But Living Area Standards have not been part of past drought policy. Nor does the 'National Drought Agreement' (December 2018) make any reference to Living Area Standards.

1.0 Preparedness

Having adequate resources – *a living area* with an economically viable flock or herd size at the onset of drought - means that cash flow can be maintained for longer as drought extends and the need to dispose of some animals occurs over time.

Compared to “smaller” or “uneconomic” pastoral holdings, this is a significant advantage for managing the risk of economic survival given droughts in Australia do not follow a predictable pattern.

2.0 Self-Reliance

As a drought lengthens, having adequate resources, *a living area*, can act as a “buffer” to delay the immediate need for financial support for affected pastoralists and delay adverse socio-economic impacts at the regional level.

But, application of the goal of self-reliance is conditional on recognizing that astute preparedness between droughts, together with prudent risk management decisions during drought, may not be sufficient to effectively offset an extreme and unforeseeable drought.

Ultimately, a need for drought financial measures would be inevitable to provide support for pastoral holdings that were economically viable and sustainable in the long-term, should a prolonged, severe drought recur.

3.0 Risk Management

An “adequate living area” has positive applications for risk management decision-making at the property level to address and balance economic risks (drought feeding costs; disposal of stock) with ecological (sustainable land use-land degradation) risks.

4.0 Resilience

Living area standards are based on achieving the goal of “*maintaining the land at a sustainable rate of production throughout average seasons*” by reducing grazing pressure and potential land degradation.

The *ecological impacts of land degradation* that arise at the paddock and property levels during a prolonged drought, are equally as important for policy making as *socio-economic impacts at the regional level*.

Where pastoral lands have degraded during drought, paddock(s) of the pastoral holding may need to be destocked for a number of years, after the drought ends, to facilitate recovery.

This should not be seen as land being left idle for years or for pastoral land not being used to its full capacity.

Rather, it should be seen as a pathway to promote *sustainability* as it gives effect to one aim of the statutory meaning of *living area*: To “*provide a reserve to meet adverse seasons*”. This is a factor that should be incorporated into the evaluation of living area standards in the pastoral zone as it is an element of *preparedness* for drought.

5.0 Living Area Standards

Living area standards need to be reviewed to ensure they are based on an *accepted scientific methodology*; as well as to ensure that a *relevant and reliable scientific database* is available to evaluate and balance the multiple and competing objectives for *sustainable land use: Ecological, economic, social and cultural*.

6.0 Corporate and Foreign Investment: *Unintended Outcome*

The number and productivity of pastoral holdings that will inevitably come on to the market after the current drought ends are a “*known unknown*”; as is the extent corporate and foreign investment will have in their acquisition.

Promoting a pathway of corporate and foreign investment in pastoral holdings, and a return to the “big runs” of the past, may have economic benefits for Australia’s current account deficit.

But drought policy needs to take a precautionary approach as family owned and operated pastoral holdings are absorbed along this pathway to avoid a potential unintended outcome through a decline in family owned and operated pastoral holdings *e.g. the social impacts that arise as a result of reduced local demands leading to population drift out of the region and supporting country towns.*

7.0 Meaningful Involvement of Pastoralists

Government must share its power with the collective wisdom of pastoralists when drafting new drought policies for the pastoral industry, as the policies are likely to be complex and controversial.

A pathway beyond this problem is to adopt an approach from administrative (“public”) law: *The use of negotiated rulemaking and alternative dispute resolution procedures.*

These procedures are the framework for a consensus-based process through which Government develops a proposed drought policy by using a neutral facilitator and a balanced negotiating committee composed of representatives of all interests that the policy will affect *e.g. the pastoral industry and shire councils* as well as Government.

A review of the potential role for *living area standards* as a policy pathway for sustainability and drought management is essential. The limitation, at present, is the absence of a database of living area standards for pastoral holdings for Australia, generally; and Queensland’s living area standards that are out of date.

End Notes: [Source](#)

¹ In 1970, the Commonwealth and State governments' National Disaster Relief and Recovery Arrangements treated drought like a natural disaster. Affected farmers were eligible for financial help.

However, the findings of a review in 1989-90 concluded that these Arrangements poorly targeted drought support and acted as a disincentive for farmers to prepare for drought.

A National Drought Policy was introduced in 1992 aimed at encouraging farmers to become more self-reliant through better planning and better management during drought.

A number of assistance programs were introduced under the National Drought Policy: The Rural Adjustment Scheme offered grants and interest rate subsidies. The Drought Relief Payment provided income support for farmers within declared Exceptional Circumstances ("EC") areas.

Where droughts were so severe that even the best manager could not be expected to be prepared, the "exceptional circumstances" measures provided additional relief.

In 1997 these programs became the EC Interest Rate Subsidy and the EC Relief Payment. They [provided business support to farms that were viable in the long term](#), but were in financial difficulties due to an EC event.

However, [successive reviews of drought policy since 1997](#) found that EC assistance was ineffective and could result in farm businesses being less responsive to drought conditions. The Exceptional Circumstances Interest Rate Subsidy closed on 30 June 2012.

Recommendations from major reviews of drought policy undertaken in 2008-09 include: -

- An increased focus on people, and on preparedness for drought;
- Greater government support of community, health and mental health programs in drought-affected areas;
- The abolition of interest rate subsidies and of EC declarations; and
- The EC scale to declare drought was increasingly irrelevant because the impacts of climate change would lead to more frequent and severe droughts in Australia

On 12 December 2018, the Council of Australian Governments agreed on and signed a new National Drought Agreement which recognised the need to support farming businesses and farming communities to manage and prepare for climate change and variability.

Its measures focus on strengthening risk management practices and enhancing long-term preparedness and resilience.

Past reviews indicate a changing focus for drought policy over time. A change from crisis management to risk management, preparedness, and self-reliance. The "elephant in the room" is the omission of a criterion from the EC programs that justify consideration for drought policy: 'Support for farms that were viable in the long-term'.