



Desert Channels Queensland

Position Paper - Drought Resilience

October 2019

Desert Channels Queensland Inc (DCQ) is a community-based organisation working with landholders on the sustainable management of their land and water resources. Our goal is to have thriving communities with productive industries supported by a healthy environment.

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Drought Resilience in Desert Channels Region

The issues

Drought conditions can have a huge impact on the Desert Channels Region. The DCQ region experiences distinct wet and dry seasons. The dry season is 'normally' very dry but that is expected in this region. When the dry season persists for long period of time it can, and does, quickly become serious for all walks of life, livestock, wildlife and people. The social and economic impacts progressively become deeper.

Drought condition can significantly contribute to the condition of the region's natural assets.

The DCQ region's economy is very tightly linked to the profit margins of agriculture determined by seasonal conditions, commodity prices, rising input costs and inappropriate government interference eg. recent vegetation management restrictions. This means there are strong flow on effects felt by towns, town businesses, and our regions urban and isolated communities from drought conditions.

Scientific evidence is indicating that droughts and other extreme weather events will be more common. Climate change predictions strongly indicate the region will experience hotter summers, more extreme heat days, increased evaporation of surface waters and less frost.

In future what will be considered drought and exceptional circumstances may shift as climate change shifts the 'normal' to hotter and dryer.

Climate change and increased drought conditions are having an impact on:

Soil – less ground cover reduces water infiltration from rain events, increases erosion and loss of top soil, reduces subsoil microbic activity and diminishes the mineral cycle.

Vegetation and biodiversity – As drought is embedded within the range of Australia's variable climate, our flora and fauna have adapted to withstand most of these extreme events however the current (2019) drought is significant in its severity. Some areas adjacent to the Lake Eyre Basin are losing century old Coolibah and Eucalypt trees as well as large areas of Mulga and Gidyea.

Fortunately, our native perennial and annual pastures and vegetation will once again flourish following drought breaking rains especially after such a long fallow period. Deep rooted plants usually survive most droughts and others will once again germinate from the massive seed bank within the soil. Increased temperatures and increased evaporation has led to increased fires and hotter wild fires, reducing breeding opportunities for some species, reduces food supply for wildlife and reduces shelter for some species e.g. grassland birds;

Water- increased pressure on water resources, increased sedimentation and turbidity, increased pressure on creek lines and rivers banks from grazing leading to loss of river health;

Increased mental and physical health risks during extreme weather conditions. The social and mental health impacts should not be underestimated. Studies show that mental health is impacted on by many factors. Drought conditions can add to, or exacerbate the cumulative effects of all the impacts on mental health.

Heat stress on people, animals and crops

Drought conditions can have further negative impacts when coupled with high fire risk and out of season heavy storms causing large soil erosion events. If drought conditions are becoming more prevalent, then the chance of compounding events will also increase. Extreme weather events can generate large degradation impacts on the condition of the region's natural assets e.g. very low ground cover can lead to high levels of soil erosion,

A significant social, economic and political challenge is the balance between investing in preparedness v's response during a drought. Most current drought support is focussed in response during drought including, social welfare support, animal welfare and economic stimulus for rural regions. An issue is how can there be investment in preparation and 'drought proofing' whilst maintaining some level of emergency assistance during drought.

A significant challenge for landholders leading into drought is to have a drought management plan and make decisions that are paramount to the long term viability of the business. Considerations include, animal and pasture welfare, seasonal forecasts, time of year in relation to the likelihood of rain, condition of stock and pasture reserves, herd/flock reduction plan eg. aged and non-breeding stock first to go, economics of supplementary then leading into full hand feeding, current livestock market, etc. Holding onto stock can lead to excessive loss of ground cover affecting long-term pasture health and erosion. There are technologies to assist in maintaining herd genetics if you have to sell breeding herd during drought including embryo harvesting and storage

Weather extremes, particularly drought has many triggers for government assistance. It is important that from time to time the wide range of support policies and program are reviewed to ensure they are not generating unintended consequences or event perverse outcomes.

A challenge during droughts is to achieve increased coordination across agencies and programs including, social support, agricultural support, emergency response. With the best of intentions there is often little collaboration and coordination across agencies and can result in poorly targeting programs, poor uptake of support or incentives, fatigue amongst target audiences and in some cases perverse or unintended outcomes.

A key issue is how to effectively provide assistance to farm families, rural businesses and primary producers adapt to and prepare for the impacts of increased climate variability

A long-term issue is encouraging farm families and primary producers to adopt self-reliant approaches to manage their business risks. Unfortunately, some primary producers do not manage climate variability well and are always the first to succumb to drought status through poor decision making, not matching stocking rate to carrying capacity and generally poor stock and property management. Often these operations lack scale and are forced to overstock in good seasons to remain viable and slow to take evasive action when seasonal conditions deteriorate. Prior to the introduction of government funded drought assistance

these producers would simply fall through the cracks thus offering an opportunity for the business to improve/expand through a change in ownership.

However, there is a need to ensure there is a safety net that ensures that farm families in hardship have access to a household support payment that recognises the special circumstances of farmers

There is a need to ensure that appropriate social support services are accessible to farm families and rural and regional communities

Intended Policy Outcomes:

To sustain healthy condition of the regional natural assets to cope with drought.

To increase the resilience of ecosystems and grazing systems to cope with extreme weather events and current and future land use custodians.

To improve the capacity of the community to manage extreme weather events and climate change.

Primary Position statements

DCQ **supports** policies, programs and on farm management practice changes that improve overall resilience of the region, its natural assets and communities to drought.

DCQ **supports** policies and programs that increase use of resilience thinking and planning, increased use of predictive tools, seasonal outlooks, early decision making

DCQ **supports** small scale, efficient irrigation as a 'drought proofing' option or enterprise diversification, within Water Resource Plan allocations and availability.

DCQ **supports** projects that increase grazing systems resilience, including increased ground cover and pasture plant resilience to extended dry periods.

DCQ **supports** increased investment to boost social networks, mental health support services, physical health services and WHS education in extreme weather.

DCQ **supports** increased investment in reducing pest plant and animal impacts during drought conditions

DCQ **supports** farm drought assistance/ subsidies for animal welfare situations. Land condition assessment could become part of subsidy arrangements to facilitate maintaining ground cover in grazing systems.

DCQ **supports** the development of drought (extreme weather) plans and the investment assistance to become more resilient

DCQ **supports** maintaining the stock routes network and all stock routes maintained in good condition, with adequate water infrastructure to enable livestock droving in drought conditions.

DCQ **supports** having an effective monitoring, evaluation and regular reporting systems that focus on drought, extreme weather events impact on the status of the regions natural assets, along with the management capacity of the community.

Secondary Position statements

DCQ **supports** the concept of retrofit landscape – e.g. strategic location of native vegetation for more shade, shade lines, shelter belts or man-made shade structures to reduce the impact of extreme temperatures on livestock during heatwave conditions.

DCQ **supports** programs that improves water efficiency and reliability. Including projects that reduce reliance on surface water storage, retire dams in place of tank/ trough systems that reduces water wastage.

QCD **supports** projects that reduce urban and rural waste wastage, detecting leaky pipes in towns or on farms and improving water management.

DCQ **supports** practices that reduces potential for weed seed spread during drought; strategically located wash down facilities; on farm wash down facilities; on farm holding yards to 'quarantine livestock arriving or leaving the property.

DCQ **supports** installation of telemetry based pipe and trough systems that can be turned off to rest paddocks and reduce pest access to 'artificial surface water'.

DCQ **supports** reducing access on artificial surface water through fencing or retiring small dams to reduce pest and kangaroo access to arterial water resources and improve grazing systems resilience during droughts.

DCQ **supports** increased waste water recycling and reuse.

State and local government collaboration on common sports fields to reduce water consumption.

Recommendations

That DCQ advocate for this policy with Local, state and federal governments

That DCQ pursue projects and initiatives that support action on this policy.

That this policy is reviewed in 2 years or when and if there is major drought legislation or State / National policies or programs occur.

That DCQ support advocacy to state and Federal Government to base elements of future drought support on the assessment of land condition.

References

- 1- BOM
- 2- <https://www.lifeline.org.au/support-lifeline/lifeline-campaigns/drought-tool-kit>
- 3- NCAP
- 4- QDMC, USQ
- 5- INTERGOVERNMENTAL AGREEMENT ON NATIONAL DROUGHT PROGRAM REFORM, May 2013
- 6- Regional climate change cluster report
- 7- <https://www.csiro.au/en/Research/Drought-resilience/Environmental-resilience>
- 8- Beyond Drought: Linda Courtenay Botterill , Melanie Fisher
- 9- Drought relief schemes for the 'Pastoral Zone' IB Robinson. The Australian Rangeland Journal 4(2) 67 – 77, Published: 1982
- 10- OCTOBER 2018 RESILIENCE STRATEGIES FOR DROUGHT USA
- 11- Drought Resilience, Adaptation and Management Policy (DRAMP) Framework
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