
# Submission to the Productivity Commission

# National Drought Policy Review

# August 2008

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## SUMMARY – Key Points

**1.** QFF stresses it is vital there be immediate tangible outcomes from this Review. The challenges of operating internationally competitive farms in a naturally "dry" and changing climate requires government and industry leadership to bring focus to what has to date been mostly ad hoc and partial responses to exceptional climate events. This focus must draw all of the community into appropriate actions to ameliorate climate challenges and provide pathways for individuals and groups to deal collectively with known and definable climate risks.

**2.** QFF represents the intensive agriculture sector in Queensland which accounts for about half the annual agriculture output of the state and supports over 38,000 jobs. The intensive nature of these industries means that producers are aligned to supply chains and therefore the drought impacts tend to be absorbed by the producing units through higher costs and effort to ensure output is maintained. This is a key aspect of the 2002 to 2008 drought which saw over 34,000 regional Queensland jobs lost but only 10,000 return with the beginnings of recovery.

**3.** Annual agriculture output in Queensland ranged between about $11.1 and $12.6 million over six years of exceptional drought, but with a third less workers it is important to question "who" has done the jobs as paid employees moved away, and what can be done to avert this imbalance in future. This unaddressed issue underlies the QFF Drought Policy that calls for a range of public and private activities and investments in drought preparedness and climate risk management.

**4.** QFF estimates that over $830 million of public money has been spent in Queensland so far over the course of this drought (made up of ECIRS $350 million, ECRP $260 million and DRAS etc $220 million). It could be argued that such a large public expenditure does little to improve long term future resilience of the sector, although the assistance has been vital to the short term survival of many farming enterprises. The aim of the QFF Drought Policy is to direct public expenditure (and private) into investments that will ultimately improve farm resilience and risk management and hence reduce the call on governments for assistance to farmers experiencing "exceptional climate circumstances".

**5.** In our collective efforts to bolster regional employment against climate extremes it is still likely that a "safety net" will need to remain in place for those extreme weather events "outside best management practices". QFF and others have already shown that the operation of state and federal drought assistance programs do not provide equitable, efficient or timely assistances and therefore must be reshaped. QFF suggests that a close examination of the performances of recent NDRRA's may provide a guide to what works well especially those programs that are universally available to get people and businesses operational as quickly as possible. QFF also suggests that closer monitoring of climate stress in all of the community along the Meteorological, Agronomic, Hydrological and Socio-economic spectrum will provide the signals where government intervention is required to offset climate emergencies (including extreme drought). Any such intervention must be available to all to ensure full community engagement in the relief and recovery efforts.

**6.** QFF highlights that experiences over the past five to ten years show that systematic proactive responses to environmental challenges create the best outcomes. While some of this experience comes from the stress and response to the current drought, it is clear that farmers respond best to industry-led initiatives. Indeed, most farmers in EC declared areas have not applied for drought assistance. It is in this area that QFF believes a much greater

effort than the new FarmReady program needs to be developed. $26.5 million over four years will not create the scale and scope of farm and community response needed “to adapt and respond to the impacts of climate change”.

**7.** QFF notes the discussion in the *Issues Paper* and sees a clear opportunity to move the debate to implementation rather than further analyses of the long agreed principles of preparedness, self reliance and risk management. QFF is already advanced with implementing the Farm Management Systems (FMS) approach to proactive farm management and believes this industry-led partnership approach is the one most suitable for managing climate change and exceptional climate stresses. Increased Government investment in such programs is likely to deliver long term dividends. The key is to have confidence that “systems” really can cope with most of what the climate will deliver. All stakeholders in the rural economy need to take up the challenge to be confident, show capability and capacity to deal with climate extremes, and build up a pool of confident producers and workers who know this to be the case. To support this approach governments need to add professional services across a much wider range of professions (i.e. beyond the Farm Financial Counselling Services and the small Social and Family Support services added during this drought) to provide meaningful counselling and training services.

**8.** QFF identifies that we must not loose sight of the fact that we already have a comparative advantage in dealing with a highly variable and changing climate. The “climate change future” we are addressing requires much more public research on the specifics of hydrology so that the full range of risks and opportunities is better known. In time we would hope that NAMS can deliver systematic monitoring of all important climate influences and updated scenarios as climate science improves.

## Background

The Queensland Farmers' Federation (QFF) represents the interests of intensive agriculture industries in Queensland, including horticulture, sugar cane, dairy, chicken meat, aquaculture, cotton and nursery production. QFF welcomed the opportunity in July to informally discuss with the Commissioners some of the issues to be addressed in this Review. This submission incorporates additional discussion and detail on what is required of climate policy to ensure continued opportunities for Queensland's intensive agriculture sector to contribute to our economies, industries and communities.

Some detail of the industries involved is provided in Appendix 1. This sector accounts for about half the $12 billion annual agriculture output of the state and supports over 38,000 jobs in rural and regional Queensland. The intensive nature of these industries means they tend to be tightly aligned to supply chains and operate continuous production systems. This means that the direct impacts of drought can remain "hidden" because the producing units absorb the impacts through higher costs and effort to ensure output is maintained. It is only after exceptionally severe and long droughts that this "true cost" emerges. This is what happened during the 2002 to 2008 drought.

QFF therefore welcomes the opportunity to further make known the requirements of the intensive agriculture sector in regards to national climate policy and any associated public support programs. We understand that the Productivity Commission has been asked to do three things, namely;

1. As part of the three-way National Drought Policy (NDP) review conduct the economic assessment of the operation of government drought support measures, including how better the goals of preparedness and self-reliance might be achieved.
2. Pull together the findings of the Expert Social Panel and the specialist climate scientists from the Centre for Australian Weather and Climate Research (CAWCR) to produce a *Draft Report* of the appropriate responses to drought in a changing climate context.
3. Conduct public hearings in response to the *Draft Report* and make final recommendations for a revised NDP to the Australian Government and the primary Industries Ministerial Council (PIMC) by 27 February 2009.

QFF advises that it has made a separate submission to the Expert Social Panel. QFF has also provided to appropriate federal and state Ministers a six point assessment of the additional climate science research required for a proper assessment of "the effect of climate change on the likely nature and frequency of exceptional climatic events". QFF does not regard the July 2008 *Drought Exceptional Circumstances* report as adequate for its intended purpose of guiding policy change towards more appropriate programs "in a changing climate context". It is imperative that there be more useful information in the science data that guides climate risk assessments.

QFF again wishes to stress that drought, exceptional circumstances and climate change policies and programs must engage the whole community. We can no longer continue the practice of selective and ad hoc government interventions when it comes to climate matters. QFF and its members have contributed extensively to many drought reviews including the 2003 National Drought Review and we remain frustrated at the lack of follow-up from the 2004 Drought Roundtable and the Corish Report. It is well known that the state Drought Relief Assistance Scheme (DRAS) and the federal Exceptional Circumstances (EC) programs only delivery to selected "categories" of drought impacted people and that reform is long overdue. We understand election cycles and the continuing drought, but these are poor excuses for inaction on upgrading a range of climate oriented policies so badly needed to keep Australian agriculture competitive and progressive.

Reviews such as this are expensive in every respect, so it is important that there be tangible outcomes. We see this particular NDP Review as a rare opportunity to rectify the errors of the past and to align agriculture policy with water and climate policies in a way that can boost the competitive and sustainable edge that our farms and support businesses have managed to develop over time. The simple mathematics of the cost of inaction motivates us to pursue positive change.

## Lessons from the Current Drought in Queensland

### *Managing for Drought*

The 2002 to 2008 exceptional drought in Queensland dramatically illustrates how harsh our climate can be. It has attained the status of "worst in living memory" because it is so widespread and has lasted so long. The actual impacts might not seem as bad as the rainfall and water storage figures suggest. The figures summarised in Appendix 1 show that the severe and prolonged downturn in income to match the rare and severe weather event may have been somewhat elusive. The data (gross value of production indicates "turnover" rather than "income") shows that annual agriculture output in Queensland ranged between about $11.1 and $12.6 million over six years and while such fluctuations can produce some local recessions where the impacts are greatest, it is obvious that such figures do not tell the full story. And this drought is far from over, and even where it is, financial recovery may still be restrained by time and resources in many regions.

This particular drought has prompted governments to bolster the traditional assistance programs and add new ones. The Productivity Commission tracks some of these changes through the annual *Trade and Assistance Reviews.* We note in the latest one reference to DAFF estimates that EC expenditure reached $26 million per week in June 2007, and this was still running at $20 million per week in January 2008 and that more than 24,000 farm families and 1,100 small businesses were receiving some form of federal assistance at that time (PC 2007). We believe the Queensland figures would have been around 4,300 farm families and 150 small businesses at that peak time.

QFF sees merit in asking the question as to whether this is a good way to spend such a large amount of taxpayers' money. The farming families population would now be well below the 2001 census figure of 112,800, with drought assistance flowing to around a third while ignoring the needs (possibly different) of the other two thirds of the farming population. While acknowledging that the prolonged nature of this drought has added to the financial and physical pressure on farm families, QFF suggests that without detailed research it is hard to know what expenditure is necessary "safety net" for viable farm businesses and what might be distorting business interference that alters appropriate response to the drought conditions.

QFF does not have the resources to investigate the detail of drought assistance program delivery, but we believe strongly that this information must be made available to this inquiry. It is our experience that governments do not make enough effort to measure the impacts of their programs and we think the public interest will be well served if there is complete transparency in accounting for where the dollars flow. For instance we see no reason why Centrelink Relief Payment (ECRP) data at a reasonably disaggregated regional level should not be made available monthly in a manner similar to the way the Queensland Rural Adjustment Authority (QRAA) makes available ECIRS data to interested stakeholders. Indeed QFF has pointed out to officials that this is vital data that should be "monitored" in a systematic way. We understand that it is provided to the National Rural Advisory Council (NRAC) for "EC review situations" but it needs to become part of the National Agricultural Monitoring System (NAMS) for all to see and use as appropriate.

From various sources QFF has been able to estimate that since this Queensland drought began to become "exceptional" in 2001 approximately $830 million has been paid out through drought assistance programs. This is made up of $220 million in state DRAS payments, rebates and special services. We estimate the federal contribution has been $610 million ($350 million ECIRS and $260 million ECRP).

We have not at this time been able to analyse the dollars and services any further other than what we can present here. For instance from various sources it seems that Queensland expenditures through the main drought assistance programs have risen every year to peak at $190 million in 2007-08. We estimate these expenditures by governments comprised $106 million ECIRS, $59 million ECRP, $18 million DRAS, $5.1 million Rate Rebates and $2.1 million Water Rebates. The data we have on Interest Rate Subsidies (business support) tells at least part of the story about to where the funds go.

**Exceptional Circumstances Interest Rate Subsidies (ECIRS) Queensland 2001 to 2008**

| Industry Sector | Applicants 3 Yrs to 2003-04 | $ Grants 3 Yrs to 2003-04 | Applicants 2004-05 | $ Grants 2004-05 | Applicants 2005-06 | $ Grants 2005-06 | Applicants 2006-07 | $ Grants 2006-07 | Applicants 2007-08 | $ grants 2007-08 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Beef** | 1,353 | $17,231,000 | 791 | $16,098,580 | 1,007 | $30,037,234 | 1,455 | $50,760,636 | 1,453 | $53,719,100 |
| **Mixed** | 559 | $9,299,000 | 240 | $5,001,568 | 290 | $9,348,561 | 404 | $14,451,417 | 421 | $16,936,500 |
| **Beef/sheep** | 246 | $4,043,000 | 142 | $2,462,578 | 211 | $5,818,599 | 247 | $7,596,510 | 228 | $7,032,400 |
| **Dairy** | 311 | $3,958,000 | 192 | $2,891,200 | 188 | $4,163,361 | 239 | $5,491,160 | 195 | $5,428,650 |
| **Cotton** | 158 | $5,370,000 | 26 | $1,126,530 | 60 | $3,037,145 | 104 | $6,243,900 | 82 | $5,476,750 |
| **Grains** | 162 | $2,649,000 | 79 | $1,391,713 | 111 | $3,132,376 | 156 | $5,119,416 | 91 | $3,175,000 |
| **Horticulture** | 74 | $1,073,000 | 58 | $917,510 | 81 | $2,076,670 | 91 | $2,648,226 | 113 | $3,150,650 |
| **Sugar** | 0 | $0 | 122 | $1,940,558 | 269 | $4,606,227 | 121 | $2,744,850 | 129 | $2,787,800 |
| **Other*** | 114 | $1,569,000 | 65 | $995,150 | 78 | $1,731,405 | 143 | $3,660,297 | 335 | $8,613,150 |
| **Totals** | **2,977** | **$45,192,000** | **1,715** | **$32,825,387** | **2,295** | **$63,951,578** | **2,960** | **$98,716,412** | **3,047** | **$106,320,000** |
| **Ave $ Grant** | **$15,180** | | **$19,140** | | **$27,866** | | **$33,350** | | **$34,890** | |

SOURCE: Queensland Rural Adjustment Authority, various annual reports. * includes small business from 2006-07.

We should point out that this help is appreciated by those who receive it and we have no argument that the assistance is needed. But we also note there is a very "uneven" distribution of it across industries (and regions). QFF suggests that detailed analysis of both region and industry distribution across Australia would be instructive and would help pin point where and why change is needed. We think for instance an analysis of ECRP and Queensland Rate Rebate data might help isolate the structural adjustment issues that may have re-emerged during this drought, especially the non viable or lifestyle farm operators for whom different "assistance" may be required.

We also like to identify another issue mentioned previously, namely that governments tend to "add programs" as droughts worsen. This may be a practical political reality but it has a significant downside for farmers. The array of assistance measures and the fact that the "rules" keep changing can be overwhelming for producers working long hours just trying to survive during the stresses of extreme drought. A listing of these programs on government web sites might serve to remind those responsible that there is potential burden of "program overload" from a primary producer's point of view especially since so many of these programs require separate applications to be completed if assistance is to be gained. It is also questionable whether the benefits in the community match the administrative costs of managing many of those 93 programs identified in the *Issues Paper*.

We have noted the discussion in the *Issues Paper* about alternative arrangements and the policy dilemma that arises when assistance is provided to what will ultimately prove to be an unviable business. We suspect this has arisen because of the ad hoc way the programs have changed and the bureaucratic processes imposed to try to avert those problems. We can add some further information that may help the Commission and officials move to a more comprehensive climate policy.

QFF notes that a motivation for this NDP Review was the recognition by the Primary Industries Ministerial Council (PIMC) "that current approaches to drought and exceptional circumstances are no longer appropriate in a changing climate context". While it is clear from this submission that QFF agrees that the EC approach is inadequate for the challenges ahead, we believe that caution needs to be applied to the "climate change" raison d'être. QFF has just completed a Climate Change Project funded under the National Agriculture and Climate Change Adaptation Action Plan and one of its findings is that we already operate in a changing and highly variable climate, but we need better measures of those changes and risks.

There was considerable expectation that the Climate Assessment component of this NDP Review would deliver this information. As noted at the beginning of this submission QFF is of the firm view that the CAWCR *Drought Exceptional Circumstances* report released 6 July does not provide adequate assessments of the climate risks ahead. QFF has written to Minister Burke requesting that additional research be done to provide more meaningful data to guide assessments of the risks of hydrological droughts and climate extremes. While we intuitively expect that climate change will increase the frequency, severity, length and extent of droughts the nation requires more precision in these measures if we are to continue to have a comparative advantage in dealing with a highly variable climate.

One important development since the 2004 Drought Roundtable has been the National Agricultural Monitoring System (NAMS). QFF and some of our members have been actively involved in its development and we remain supportive, albeit with some reservations after some recent experiences. It seems to us that the Australian community will be well served if we have a systematic and transparent approach to monitoring the climate influences and impacts on agriculture (both good and bad). But the system needs to be holistic and inclusive so that all can benefit.

In the context of this Review we feel it is important to record that communities, not just farmers, do need a proper means to measure the evolution of droughts through all stages from early impacts, through to "triggers" for potential assistance measures, and then onto the stages for recovery. The aim of NAMS to "standardise and harmonise" processes for declaring and undeclaring droughts is sensible, but the tool should aim for broader application so that it truly does act as an "early warning signal" for the many operators in our communities that are impacted by severe and long droughts and need to plan accordingly. For instance, many of the current "water issues" in the Murray Darling Basin might have been better managed had people monitored more closely the drought impacts upstream in Queensland since 2001. Into the future we envision that critical climate change monitoring and scenarios will also be incorporated into NAMS.

QFF acknowledges that NAMS is a work-in-progress and with progress towards more planning and metering systems under the National Water Initiative there will be more regionally relevant information about water use and availability as time goes by. QFF asks that NAMS be geared to monitor and report on water systems relevant to the agriculture sector in a way that helps all stakeholders tap into information about drought impacts and recovery.

The current drought has thrown up many problems but none clearer than the administrative processes for the revocation of EC. While we have taken issue with the National Rural Advisory Council (NRAC) over its narrow definition of "drought recovery" (agricultural

recovery rather than hydrological or socio-economic recovery), what is relevant to this Review is that the current operation of the EC policy offers no clear steps to transition farmers still needing assistance. QFF finds it incongruous that some 3,400 farm families and small businesses can be in receipt of assistance for an "Exceptional" event one day, and the next day a third of them are cut off.

For the record this followed the Advisory Council's inspections for "agricultural recovery" in Queensland and its failure to adequately assess the hydrological issues and low water allocations. As a consequence some of the 13 Queensland EC regions had assistance abruptly ended 15 June 2008 when a wider assessment would have suggested otherwise. QFF estimates this immediately impacted up to 1,200 farmers with no suitable transition arrangements for many of them.

How this problem comes about is likely due to many causes some of which are discussed in the *Issues Paper.* We believe there is value in promoting discussion about mutual obligations when one is in receipt of public assistance, but some of that discussion needs to address the mutual aspect. As a principle governments that impose a rigour for qualifying for help need to be even handed and compassionate in how they withdraw it. We also see this as a compelling reason to broaden the scope of assessment and ensure government managers account for how they operate the interventions. QFF recommends that if extreme climate events trigger public support measures then the rules for eligibility must be clear and uncomplicated, and that timelines for review and revocation be equally clear.

We have previously drawn attention to the Annual Reports of the Queensland Rural Adjustment Authority (QRAA) as the provider of most of these programs. The data indicates that these programs are many but delivering to a relatively small proportion of Queensland producers when looked at in total. We believe it would be instructive to analyse the "reach" of each of these programs and assess what the inhibitors may be to a more universal uptake of programs. It should also be noted that that between 2000 and 2003 considerably more producers participated in the "proactive" rather than "reactive" programs, which suggests that monies targeting the former deliver greater benefits to all concerned.

***Rural jobs are vital***

The most significant lesson that QFF has learned from this drought is the loss of jobs. QFF urges all levels of government to recognise that drought reaches beyond the farm gate and that some serious supply chain issues have emerged as this drought continued. Of greatest concern is the loss of over 34,000 regional Queensland jobs since 2001, and the return of only 10,000 as recovery activities get underway. We have tried to get some disaggregation of these important farm employment statistics (ABS Series ID A87389C), especially by farming, input supply and processing occupations, but unfortunately officials have been unable to supply it in time for this submission.

That detail aside, importantly it remains unaddressed as to "who" has filled the jobs as paid employees moved away. We know anecdotally that it is mostly family members who have had to do the work, so it is not just the extra tasks that need to be done in drought (not in all circumstances, but certainly in many intensive agricultural activities), but also that these jobs are spread among fewer numbers. There are obvious unaccounted human costs here that go beyond just occupational health and safety hazards, but there are others more skilled than us to identify these. Nonetheless QFF regards this as one of the defining issues that must be addressed since it encompasses one of the true costs of exceptional droughts.

This regional employment issue along with some well documented anomalies with current drought programs has led the Federation to develop a comprehensive Drought Policy that aims to promote broader investments in drought preparedness and climate risk management. The policy provides a framework to begin a transition from the current uneven and ad hoc approaches of government to a more planned and systematic approach to deal

with Queensland's highly variable and changing climate. The QFF policy is incorporated into this submission as Appendix 2.

***The Way Forward***

There is clear evidence that farm management tools which incorporate climate variability have been operating with some degree of success in recent years. QFF contends that these programs offer considerable leverage in dealing with drought and provide the linchpins for securing regional employment. QFF is already advanced with implementing the Farm Management Systems (FMS) approach to proactive farm management and believes this industry-led partnership approach is the one most suitable for managing climate change and exceptional climate stresses. Increased Government investment in such programs is likely to deliver long term dividends. The key is to have confidence that "systems" really can cope with most of what the climate will deliver.

Until now there has been no effective way to 'secure' employment during the downturn associated with drought. This a major problem for all specialist service providers ranging from cotton and cane agronomists to animal husbandry and nutrition specialists and to the special operators further down the supply chain including the meat processors, packing shed and refrigeration operators. As identified in the Expert Social Panel *Issues Paper* the challenge is that if these staff have to be 'let go', even if only for a short time, they invariably leave the district (there being no alternative work available within the district) and it is very difficult to entice these people back when business resumes with the return of more favourable weather.

QFF surveyed its members for the previous NDR and found one tangible benefit for those accessing assistance was that it helped them retain employees. However, for a variety of reasons too few QFF members were eligible to access the assistances.

This regional employment issue is one of the main drivers of the policy changes proposed in this submission. The best solution to drought and climate change is to prepare ahead for the impacts so that they are minimised. This way the retention of important skills and general employment considerations become less of a problem than under the current policies.

While we are advocating this proactive approach with a firm focus on preparedness and climate risk management, we recognize that some "safety net" may still be required for truly exceptional events outside the coping scope of best management practices. In this context we believe it is instructive to examine the performance of the Natural Disaster Relief and Recovery Arrangements (NDRRA) for various events but particularly those developed for Cyclone Larry. An important aspect of the Cyclone Larry relief and recovery efforts was the whole community was involved (and engaged) and the Industry Recovery Officers that we were able to deploy were locals with industry credibility. This has not been the case with EC events (with the notable exception of the Queensland dairy industry) and the recovery efforts suffer as a consequence.

A key point here is that normally government assistances in such emergencies are universally available, and QFF believes this is as it should be. One the worst aspects of the application of EC arrangement in the past have been discrimination between different "classes" of farmers and agribusinesses. Just a cursory look at the distribution of ECIRS in the table above shows how unevenly the current system operates. This is an anomaly that must be changed since it creates social disharmony and added stress for those involved. We were very grateful on 25 September 2007 when the then Prime Minister announced, among other things, that EC declarations were for "All Producers", meaning all in the region including eligible small businesses. This needs to be enshrined into all policies that cater for any future climate contingency programs including drought.

## Keys to Better Drought Policy

Aside from the specific matters QFF has placed before the Expert Social Panel, QFF wishes to emphasise to the Productivity Commission that the principles of self reliance and preparedness need to be secured in the community at large, not just among selected sub groups of farmers. We identified to the Commissioners in July that there needs to be a professional assessment as to why the recommendations of 1989 Drought Review were not implemented, as this is likely to reveal where greater effort is required.

QFF has identified that proactive engagement across the entire community will help create the relevant answers in each locality. If communities are genuinely at risk from climate events then it is a wise course to be prepared and to have known contingency plans. Governments need to be a part of this, and develop additional professional services so that one-on-one counselling across a range of professions is available as required. Increasingly farm families and small businesses need access to third party advice on an ongoing basis rather than in "crisis" settings. This is a vital issue that has emerged in the complexities of modern life and is not just a drought stress or climate change issue. To support the "family structure" of farm businesses this aspect of "social needs" requires a much more structured response from governments than is currently the case.

This submission focuses on proactive responses that will help secure rural skills in regional Queensland by providing confidence that the various operating systems can prepare for and manage climate risks. QFF is of the view that all stakeholders in the rural economy need to take up this challenge and be confident, show capability and capacity to deal with climate challenges and build up a pool of enthusiastic producers and workers who know this to be the case. QFF and the intensive agriculture sector will be implementing proactive climate risk management strategies and presenting itself as a more positive and secure place to work and advance with a new program that promotes "Smart farms, great jobs."

QFF acknowledges that agriculture is changing and so are the communities that interdepend on the sector. In Queensland today we see the new shape of agriculture that requires customer focus, the continuous supply of products, and sustainable input systems that can cope with widely variable weather conditions. In order to support these industries, Queensland requires drought policies which assist them to maintain their key agricultural systems, regardless of all climatic influences except the completely unpredictable.

It is the QFF experience that processes that reward excellent resource management work best. As noted elsewhere the existing frameworks for drought assistance tend to discriminate against those who successfully plan and manage for drought by ruling them ineligible because of that success. The criteria requiring primary producers to have debt and a traditional family farm business structure is equally unproductive and discriminatory.

It follows therefore that to meet the wider community's interest in sustaining agricultural systems, even in exceptional periods of drought, then we need an array of public and private activities that can deliver better climate management tools. These will include risk management strategies to cover preparation, management and recovery activities for extreme weather events, and programs to deliver appropriate skills to plan and adjust to long-term climate change scenarios.

Queensland and Australian governments need to commit to this approach rather than drift through repeated processes of review. QFF has identified the following key concurrent actions needed now;

- A whole-of-government approach to public investments, initiatives and assistance programs that are universally relevant to variable and changing climate conditions;
- Comprehensive climate risk management strategies and tools linked to Farm Management Systems (FMS);
- Comprehensive public research and communication of science that can be used operationally by land, water and business managers;
- Full integration of water policies and programs into these arrangements.

The above actions will provide a platform for drought preparedness rather than drought reaction. And within that changed framework QFF believes a renewed emphasis on a range of activities can greatly assist in minimising the impacts of exceptional and unpredictable weather. While not exhaustive QFF lists some initiatives that must be retained and strengthened to produce a viable Climate Policy that incorporates an appropriate response mechanism for Exceptional Climate events.

**1.** ***Farm Management Tools*** There is clear evidence that farm management tools which promote self reliance and incorporate climate variability have been operating with some success for some time now. QFF believes that these programs show the benefits of being proactive rather than reactive and offer a systematic way to deal with all farming issues. They also offer the leverage to deal with future droughts and climate change and therefore need to be extended for all to use.

**2.** ***Risk Management Strategies Incorporating Drought – FarmReady (former FarmBis and other Training Programs)*** Programs that educate and promote a whole-of-farm approach to managing climate and water variability and consequent income fluctuations are demonstrably beneficial to individuals and communities and should be retained. Equally important are programs that train primary producers to take a whole-of-life approach to managing income flows and investments both on and off farm. These types of programs also assist in retaining the skills base and key employees when normal farming activities are curtailed. QFF also endorses the adoption of additional drought preparedness and risk management strategies such as incentives for drought management infrastructure, incorporation of risk management tools and planned approaches to severe drought and recovery.

**3.** ***Long-Range Seasonal Forecasts Linked into Production Systems, including Water Management Systems*** It is now widely accepted that the major issues confronting agriculture and regional Australia are climate related. More public research in these areas, especially climate drivers, risks and opportunities must be encouraged as it is likely to yield significant benefits over time, as we learn to predict and manage weather and climate variability, while presenting the results in a format that can be applied at the operational level of agricultural and water using enterprises.

**4.** ***Rural Water Use Efficiency*** The Rural Water Use Efficiency initiative, supported by commodity-specific delivery programs, delivers long-term sustainable benefits for primary producers, and warrants further support. Public assistance is required to create the constant learning environment that will extend the value of similar research and development programs with broader education and extension effort.

**5.** ***Farm Management Deposit Scheme (FMD)*** This has evolved into a sensible tool that encourages primary producers to manage annual incomes more tax effectively. It requires some refinement to ensure intensive and continuous production industries also have some tax benefits from “savings”, along with broad promotion of the scheme throughout both the farming and accounting professions.

**6.** ***Taxation and Government Charges*** There is widespread consensus that a fuller range of drought mitigation works should be given accelerated deprecation by the ATO. All levels of government should be encouraged to develop and implement "customer centric" policies so that they can respond quickly and effectively when a customer segment requires "leniency relief". In this way, "drought response" will be inbuilt into public programs along with other social response programs. This principle should also apply to statutory authorities such as natural resource and water managers. Governments should facilitate a process to allow for flexibility of certain charges during Exceptional Climate events including rescheduling of fixed charges where appropriate.

**7.** ***Regional Water Infrastructure*** Drought is generally taken to mean 'a prolonged or chronic shortage of water'. The counter to drought is to store and share water appropriately to better manage for variable rainfall and runoff events. Water allocation planning identifies, among other things, opportunities for further water supply developments in catchments. It is important that future planning for the development of unallocated water supplies take specific account of benefits of project proposals for drought mitigation for water users. Additionally issues that can improve water use efficiency and demand management among all users need continuous attention.

**8.** ***National Water Initiative*** The National Water Initiative provides a framework for managing risks of reduced or less reliable water allocations arising from more variable seasonal or long term changes in climate and natural events such as drought. Commitment on the part of governments to progressive improvement to the catchment based water resource planning and monitoring is essential if rural water users are to effectively manage for the risks of climate and natural events such as drought. The NWI also needs to consider pricing and tariff structures for drought conditions and climate change.

**9.** ***Recycling of Water for Rural Use eg. City to Soil*** Governments must give priority in all growth planning programs for the reuse of water from the treatment of municipal sewage effluent, industrial and agricultural effluent and urban stormwater. In particular, the development of recycled water projects for a wide range of agricultural activities should be explored. Activities including non food crops, food crops, intensive livestock and aquaculture can use significant quantities of an alternate assured supply of recycled water. This is in keeping with the key principles of the National Water Initiative to use water more efficiently.

**10.** ***Multi-Peril Crop Insurance*** Further research is needed to progress options in this complex area of risk underwriting. Governments should be encouraged to consider underwriting support as a means of delivering a public good at a lower cost than current drought assistance packages.

**11.** ***Weather Derivatives and Index-Based Yield Contracts*** As with (9) above, this is an area where public research may yield considerable long term benefits for primary producers and the wider community.

**12.** ***Primary Producer Mutual Funds*** This is an old idea that has resurfaced in recent times as an alternative to commercial insurances that have "missed" markets because of inadequate research (ill defined actuarial risks). Public research to improve the knowledge base in this area has the potential for considerable long term benefit.

**13.** ***Extended Grants/Reciprocal Loans – the 'HECS' Approach*** This is a concept that adds to (5) above and provides for assistance in a manner that is seen as more efficient than present processes. It has the potential to provide considerable community benefit and should be further explored, especially since it is not linked to traditional drought measures

that discriminate against modern continuous agricultural production systems. QFF suggests that when Exceptional Climate events are “triggered” governments should first provide the “welfare safety net”, and then if additional “business support” is warranted it should be in a simple grant form, rather than tied to debt or some other eligibility.

**14.** ***When is assistance needed?*** Elsewhere in this submission we have identified the need for more public research into the appropriate “triggers” for government intervention and the flow of disbursements. It will be particularly instructive to identify rural welfare needs, any residual structural adjustment matters, and ongoing public support to counter regional recessions associated with Exceptional Climate events.

**15.** ***Public Research and Engagement*** It is evident that individuals and communities can adapt to change and emergencies only up to a point, beyond which outside help is needed. QFF believes that more research will help identify the most effective ways to build crisis management capabilities for the expected increase in Exceptional Climate events. Our experience has shown that the deployment of credible teams of competent advisors helps build capacity to manage both risks and opportunities.

**16.** ***Emergency water allocations in drought*** As a medium to longer term approach, a transparent process is required for the allocation of water in drought situations to ensure the needs of primary producers are given a high priority.

**17.** ***Managing Native and Feral Pests*** As with (4) above, this aspect of land management should also embrace the principles of education and continuous improvement through publicly sponsored research and development programs. In addition, governments need to commit to managing crown lands, national parks and fauna reserves with the same due diligence that is required of primary producers. During drought governments need to add resources to ensure wildlife do not roam and browse onto farms.

**18.** ***Streamlined Administration*** Community and commodity groups have been unanimous in expressing frustration at the multi-levels of governments involved in drought programs, and inconsistencies across bureaucratic domains. It is therefore recommended that if an Exceptional Climate event triggers the need for public assistance then a single assistance application process be implemented where a primary producer or small business operator can complete one application to access the relevant assistance program(s).

## Appendix 1

### Features of intensive agriculture in Queensland

Agriculture activities are usually classified by commodity output, land use or production systems. In Queensland, an often used convention is to differentiate between mostly coastal activities and those that take place in the wide expanses west of the Great Dividing Range. This division also tends to correlate with rainfall, the coast being a high rainfall zone relative to the drier inland. However, Queensland covers a wide range of possible agro-climatic definitions ranging from the wet tropics in the far north to the near desert conditions of the southwest channel country. Annual rainfalls vary from over 4000mm in the Tully-Babinda region of Far North Queensland to less than 200mm in the South West.

Importantly, Queensland farmers have adapted well to this diversity and a wide range of productive systems have evolved to make best use of the land and climatic conditions. This has given rise to farming systems that can be categorised as either intensive or extensive. The intensive sector gets its name from being generally intensive land users with support from irrigation systems to permit year round or continuous production.

Unfortunately, the last seven years of drought in Queensland have had a severe impact on primary production, particularly on intensive agricultural commodities because of the problem of reduced irrigation water supplies and water allocations. Nonetheless, the intensive agriculture sector remains a vital contributor to the Queensland economy and accounts for about half the states annual $12.3 billion primary production.

Agriculture continues to be a major employer in Queensland providing 3.7 per cent of jobs or 79,400 positions in 2007. In 2002, prior to the drought taking hold 106,500 jobs were filled in rural industries representing 6.3 per cent of the Queensland workforce. Aside from drought, the last five years have also coincided with strong employment growth in Queensland and now attracting and retaining employees in primary industries is a significant challenge. This is particularly the case for those areas, mostly in central and northern Queensland that experienced drought-breaking rains during the “La Nina” summer of 2007-08 and now need new employees to help sustain the recovery in agriculture made possible by full water storages and replenished aquifers.

In the context of a changing climate where the science indicates that Queensland will experience reduced annual rainfall and increased average temperatures, it follows that intensive agricultural production systems are likely to be impacted differently than the extensive systems mainly because the former are dependent on stored water for year round production. The increased gaps between rain events and longer dry periods within seasons will exacerbate this. The main agriculture activities in Queensland are shown in the table and a brief description of the intensive industries are as follows;

| GROSS VALUE OF QUEENSLAND AGRICULURE PRODUCTION ($m) | | | | | | |
|---|---|---|---|---|---|---|
| **Commodity Group** | **2002-03** | **2003-04** | **2004-05** | **2005-06** | **2006-07** | **2007-08** |
| Beef Cattle | 2,878 | 3,071 | 3,631 | 3,607 | 3,802 | 3,370 |
| Sheep & Wool | 205 | 177 | 170 | 155 | 165 | 180 |
| Dairy | 251 | 228 | 217 | 218 | 207 | 255 |
| Pigs | 213 | 206 | 235 | 230 | 237 | 220 |
| Poultry & Eggs | 298 | 307 | 333 | 314 | 348 | 410 |
| Fruit | 720 | 734 | 777 | 911 | 1,046 | 1,140 |
| Vegetables | 674 | 834 | 713 | 945 | 803 | 780 |
| Amenity horticulture ** | 1,241 | 1,355 | 1,460 | 297 | 555 | 605 |
| Sugar Cane | 924 | 740 | 917 | 963 | 1,075 | 750 |
| Raw Cotton | 210 | 410 | 419 | 359 | 122 | 110 |
| Cereal Grains | 458 | 557 | 474 | 454 | 429 | 970 |
| Miscellaneous | 399 | 529 | 380 | 254 | 283 | 165 |
| Fisheries | 370 | 379 | 335 | 250 | 255 | 270 |
| Forestry ** | 666 | 725 | 725 | 190 | 200 | 200 |
| **All Primary Production** | **9,507** | **10,252** | **10,786** | **9,148** | **9,527** | **9,425** |
| Meat processing | 787 | 836 | 977 | 971 | 1,022 | 933 |
| Dairy processing | 137 | 125 | 119 | 119 | 113 | 140 |
| Fruit & veg processing | 137 | 154 | 147 | 183 | 182 | 189 |
| Sugar milling | 388 | 311 | 385 | 404 | 452 | 315 |
| Cotton ginning | 24 | 47 | 48 | 41 | 14 | 13 |
| Grain milling | 85 | 104 | 88 | 85 | 80 | 181 |
| Seafood processing | 27 | 27 | 24 | 18 | 18 | 20 |
| Nursery services | ** | | | 615 | 665 | 700 |
| Timber processing | | | | 330 | 347 | 347 |
| **Primary 1st Processing** | **1,585** | **1,604** | **1,787** | **2,766** | **2,893** | **2,837** |
| Source: DPI&F Prospects June 2008, and earlier editions. ** not disaggregated from GVP | | | | | | |

**1. Sugar.** Approximately 94 per cent of Australia's sugar output comes from Queensland. Because cane requires processing very soon after it is cut, the sugarcane industry has regional processing centres and as such is an important regional employer for many coastal towns and cities along 2100 km of coastline between Mossman in Far North Queensland and Grafton in Northern New South Wales. The main cane growing regions are the wet tropics of Far North Queensland, the dry tropical Burdekin irrigation region south of Townsville, the semi-tropical Central region around Mackay, and the Southern region around Bundaberg and Maryborough.

**2. Horticulture.** Queensland fruit and vegetable industry is as diverse as the state itself. Horticulture contributes approximately 16 per cent of the gross value of the state's primary industries and directly employs about 25,000 people. Queensland growers produce more than 130 types of fruit and vegetables and hundreds more in different varieties. Queensland's production accounts for about 30 percent of all fruit and vegetables grown in Australia including 80 percent of Australia's tropical fruits. The industry incorporates tropical plantations, orchard trees, vines and high rotation field crops. It is reliant on irrigation and it is the unavailability of water that triggers drought for the sector.

**3. Nursery and Garden.** The amenity horticulture industry is an important part of Queensland's agriculture sector and provides considerable value adding services throughout the production-wholesale-retail nursery chain. Direct employment in the industry was estimated to be at 3,350 people in 2000-01 and this is likely to be the current size of the sector, with growth earlier this decade now offset by contraction due to drought and water

restrictions adversely affecting both the production and demand aspects of the industry. The Queensland industry is very much affected by demand conditions in the principle southern markets of Sydney and Melbourne.

**4. Dairy.** The Queensland dairy industry consists of approximately 650 producers in four principal regional areas. This is less than half the number of dairy farms that operated in 2000. While the local industry still supplies a modest proportion to the manufactured products and export markets, the vast majority of Queensland milk goes directly to the fresh milk market. There are four milk processing companies operating in the state and it is estimated that the industry currently employs about 2,300 people. Because of the long drought since 2002 and the steady increase in milk demand Queensland recently became a net importer of milk and will remain so for into the future as production is constrained by lingering drought in most of the local milk producing regions. While a summer-winter pasture regime remains an important component of dairy production systems, because of drought and less reliable water supplies for irrigation most Queensland dairy farms now incorporate a much higher supplementary feeding and the use of feeding systems then was the case previously.

**5. Cotton.** Queensland normally produces about 30 per cent of the nation's cotton crop, but recent drought has cut production dramatically. The Queensland cotton industry is concentrated where normally reliable summer irrigation supplies are available. The dryland area (rain fed) is normally an opportunity crop when conditions suit. The industry is characterised by its significant reliance on specialist agronomic and crop monitoring services while the crop is growing, and specialist harvesting and transport contractors for picking and delivering to regionally based cotton gins. This feature means that a number of Queensland's regional centres (Emerald, Dalby, Goondiwindi and St George) have a significant reliance on the cotton industry.

**6. Chicken Meat.** The chicken meat industry is largely centred in the South East corner of Queensland and continues to experience strong growth. As elsewhere in Australia the chicken industry is highly integrated and is often portrayed as the success story of co-operation among all segments of the industry. The outcome has been a remarkable achievement in growth and consumer acceptance that perhaps only the Australian wine industry may have paralleled. Chicken meat consumption rose from 5kgs per head in the mid 1960s to 26kgs in 1990 and to 37kgs now. The Queensland chicken meat industry is well structured to manage drought but the recent exceptional droughts have highlighted the added risks of water availability for both drinking and cooling.

**7. Aquaculture.** Aquaculture prawn farming began in the 1980's with most farms being located on flat land adjacent to seawater sources, such as tidal rivers or creeks. Prawn farms require temperatures above 25 C during production season, therefore 80 per cent of Australian prawn farms are located in Queensland. Total land currently used for production is in excess of 900 hectares and clusters of the farms can be found on the Logan River south of Brisbane and around Mackay, Townsville and Cairns. The biggest farm is located north of Cairns at Mossman and produces prawns all year round. The other farms produce one crop per year and harvesting is usually completed in April. It takes six months for prawns to grow to harvesting size and processing is carried out immediately after harvest, so most farms have their own production facilities that include grading, cooking and freezing. Prawn farming is the main element of Queensland's aquaculture sector providing the equivalent of 300 full-time jobs to produce in excess of 3,000 tonnes of product for an annual value that exceeds $45 million.

**8. Irrigation.** Queenslanders experience a climate of extremes and wide variability. This is manifest most clearly with rainfall and that is why Queensland has developed much of its industry around human attempts to moderate the effects of that variance. While the principal of collecting rainfall in the summer "wet season" to be used later in the "dry season(s)" is simple enough, the practise has proven a great challenge because of the variability in Queensland's rainfall is far greater than variation between seasons. This has meant that water availability was and still is the major determinant of industry development, be it for coal mines, tourist resorts or farms. The variability in Queensland rainfall is reflected in stream flows, the extent of which is illustrated in the table below;

**Variable Stream Flows in Queensland Mgl/year**

| Locations | Maximum Discharge | Average Discharge | Minimum Discharge | Zero Flow (months) |
|---|---|---|---|---|
| **Burdekin at Clare** | 50,927,000 | 11,249,000 | 540,000 | 3 |
| **Thomson at Stonehenge** | 16,735,000 | 2,895,000 | 92,000 | 6 |
| **Burnett at Walla** | 10,619,000 | 1,504,000 | 55,000 | 8 |
| **Balonne at Weribone** | 6,215,000 | 1,462,000 | 102,000 | 6 |

Source: DPI State Water Conservation Strategy September 1993

Because of the variability and strong seasonality of these climate influences, there is little scope in Queensland for reliable water supply from "run-of-river" diversions. Instead storages need to be constructed with sufficient capacity to enable supply through prolonged dry periods. By 1990, 420,000 hectares or 14% of the total area cropped was irrigated from either private operations (bores, farm dams or stream diversions) or the Government irrigation schemes. At that time irrigated output amounted to $1.2 billion or 52per cent of the value of all crop output.

The Australian Water Account 2004-05 identified that the irrigated area in Queensland had risen to 542,000 hectares and that 63 per cent of this was irrigated by "self-extraction". An important consideration in managing water for irrigation of agriculture production systems is the evaporation. It is this climate influence that reduces both water availability and soil moisture (plant available water). Queensland is generally moisture deficient because of the mostly hot and dry (for eight months) climate. Annual evaporation rates range from 1270mm in the south-east to 3500mm in the far south-west. Only the wet tropics generally have surplus moisture on a year to year basis.

# Appendix 2

## QFF DROUGHT POLICY

***QFF believes that communities, industries and governments need to be better prepared to deal with extreme weather events. Where there are identifiable risks associated with weather and climate variability, these need to be planned for rather than reacted to. This is more important than ever, given the increasing likelihood of a greater number and intensity of extreme weather events. While self interest may guide the responses of individuals to these risks, there is also a need to promote similar group responses.***

QFF calls for a co-ordinated, national approach to drought preparedness and drought management in preference to the reactive and uneven application of the national Exceptional Circumstance (EC) and state Drought Relief Assistance Scheme (DRAS) programs. Policy needs to be sufficiently robust to deal with the challenges Australia faces from weather and climate variability and change in the future.

QFF calls for urgent action to progress the recommendations of the National Drought Review (April 2004) and the Creating our Future: Agriculture and Food Policy for the next Generation Report (February 2006).

There is an urgent need to implement a complete whole-of-government approach to public initiatives and investments to deal with drought and climate variability and change.

Measures to deliver better climate management tools are needed, including risk management strategies to cover preparation, management and recovery activities for extreme weather events, and programs to deliver appropriate skills to plan and cope with longer term climate change scenarios. The best solution to drought and climate change is preparation. Such policies and programs should:

- Be based on the principle of continuous learning and improvement and the application of timely, science-based information;
- Identify with effective supply chains that are market responsive and adaptable;
- Deliver research, education and training skills and tools relevant to an ever changing world;
- Show how they assist in developing a sustainable, low-cost, globally competitive agriculture and food sector;
- Include appropriate transition arrangements;
- Provide underlying welfare support in a timely and equitable fashion;
- Aim to retain a skilled workforce in rural areas along the supply chain during extreme events;
- Encourage the use of farm management tools which promote self reliance and risk management and provide the leverage to proactively deal with future droughts and climate change/variability;
- Be universal in application. Drought impacts will vary and they are dealt with accordingly, but as their effects accumulate and reach “exceptional” there should be no discrimination as to which sectors may need assistance when clearly the whole community is impacted.

QFF acknowledges that state and national drought assistance arrangements need to remain in place until the current drought ends. However, both Queensland and Australian Governments need to commit to a more proactive program than is currently underway through the PIMC process. QFF calls for:

- More consultation with intensive agriculture in the development of the National Agricultural Monitoring Scheme (NAMS) to assist in drought declarations, along with a work program so that NAMS can achieve its goals of delivering timely and accurate information to all stakeholders;
- State assessments of “seasonal conditions” to more comprehensively incorporate all principal agriculture activities in a shire;
- Finalise the implementation of “standardised and harmonised” processes for drought declarations and recoveries;
- Set benchmarks and timelines to integrate weather, climate and water monitoring into the measurement of production, landscape and social impacts at appropriate local and regional levels (shire and statistical divisions).

**2) Drought preparedness and climate risks**

QFF believes that Governments need to promote and support programs to improve industry drought preparedness and management of climate risk, including:

- Farm Management Systems (FMS) - Specific drought, climate and watermanagement modules should be developed as appropriate to the needs of each industry for inclusion in industry-led FMS programs designed to make farming more profitable and sustainable;
- FarmBis and TASK Rural Training Programs - Encourage and expand programs that educate and promote a whole-of-farm approach to managing rain and water variability and consequent income fluctuations to individuals and communities;
- Long-Range Seasonal Forecasts Linked into Production Systems, including Water Management Systems - Increased public research on climate risk management and climate change and variability to better predict and manage weather and climate variability, with results presented in a format that can be applied by agricultural enterprises.
- Risk Management - To ensure environmental and animal welfare are at the forefront of sustainable land use, primary producers, regions and industries must be educated in and encouraged to use risk management strategies that can cope with any form of climate extremity. Producers should be encouraged to take a co-operative approach to land management, recognising that climate extremities and impacts are generally wider than the farm boundary.

**3) Climate applications and public research**

Climate variability needs to be considered as a normal part of risk management and decision-making. To ensure such decisions are better informed, a comprehensive research and communications strategy is needed, providing:

- Information in a form that land, water and business managers can utilise and incorporate into their decision making processes, developed in consultation between scientists and users;
- Climatic indicators and projections which are more specific measures of on-ground manifestations of weather events;
- Redirection of public research work programs to specifically incorporate climate adaptation issues;
- Better education of the community about possible future climate scenarios and the development and promotion of strategies to either mitigate or adapt to these scenario.

**4) Water policy issues**

To cope better with climate variability, more efficient storage, management and use of water resources is essential. While QFF is supportive of the National Water Initiative (NWI) in general, it calls for further research and policy development to:

- Better specify the scope of responsibilities to deal with drought and climate change, with adjustments to reflect the underlying science and economics of water use;
- Raise public awareness of drought impacts and adjustment options including better decision-making tools;
- Provide more relevant and timely data and assessment of the impact on water availability from weather and climate variability and change, particularly on a regional and catchment basis;
- Improve the catchment-based water resource planning and monitoring to better assist rural water users in effectively managing for the risks of climate and natural events such as drought;
- Provide for greater security of entitlement to water for primary production;
- Prioritise planning for the reuse of water from the treatment of municipal sewage effluent, industrial and agricultural effluent and urban storm water, and exploration of potential development of agricultural uses for such water;
- Expand the Rural Water Use Efficiency and like programs designed to encourage and assist water users to be more efficient. Public assistance is required to create the constant learning environment that will extend the value of similar research and development programs with broader education and extension effort, along with appropriately targeted incentives to promote better practices;
- Reduce or waive fixed water charges where exceptional drought impacts have reduced water deliveries to less than half of water allocations as part of a wider array of appropriate drought assistance measures.

Approved by QFF Council December 2006

E O D August 22, 2008