

Comments on Future Drought Fund Draft Resilience Funding Plan

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To Brent Finlay
Chair, Future Drought Fund Consultative Committee

Dear Brent,

Thanks for the opportunity to provide feedback and congratulations on the overall plan. I think the Drought Fund initiative is much needed, the long-term outlook is commendable and the 3 strategies are well focussed.

My background is in agricultural research and extension with a focus on management of climate risk in the grain and grazing industries of Queensland. Recently I co-authored the attached paper "*Research priorities and best practices for managing climate risk and climate change adaptation in Australian agriculture*" (George et al. 2018) that draws on results from the NCCARF research and *Farm Ready* programs. Biographic details are below and comments on the draft Resilience Plan are as follows.

Actions are needed in the short term to achieve greater resilience and capacities for managing climate risk. Many tools are available to help with this task and can be put to good use immediately. The vocational education unit of competency "*AHCAGB501 - Develop climate risk management strategies*" (George et al. 2007) and the "*Climate Mates*" program at the University of Southern Queensland are good examples.

However, the problem and danger with current assets is that they are piecemeal and/or lack the reach to make substantial change so that negative assessments such as those of Agarwal *et al.* (2019) may continue if major systemic and systematic adjustments are not made. To achieve the required goals there is need for education and extension that has sufficient scale, persistence, standards, robustness, marketing and promotion.

Therefore, I suggest the Drought Funding Resilience Plan seeks, as a priority, to cause a permanent **structural change** in the way organisations such as Universities, vocational education agencies, industry, NRM groups, and private companies seek to engage with primary producers and to deliver education and extension programs that build resilience and capacity for managing climate risk. In my view the Drought Resilience Plan would:

- Take some time to achieve widespread structural change in delivery mechanisms.
- Use the attached review paper by George et al. (2018) to help define priorities.
- Focus on risk management as per the Drought Resilience Plan but also highlight the Australian Standards on Risk management so that it is clear that managing risk is not some vague notion but a very clear set of management guidelines relevant to managing Australian farms with well-defined processes and standards.
- Give priority to developing and promoting Best Management Practices (BMP) that are developed with, and have the support of producers, industry and science, and cover the full range of on-farm and off-farm climate risk management issues.
- Develop breadth of scale with the education sector by liaising with industry and many university and vocational education bodies to develop a diversity of delivery mechanisms as online and face to face activities. Educational bodies have the processes to provide certification, sustainable delivery and robust standards for

administration, content quality and infrastructure. An integrated approach is needed with both theory and practical components at certificate, diploma and university levels that are easy to discover and well described on the internet.

- Require widespread on-going engagement with primary producers and therefore a substantial marketing and promotional plan will be needed to address values and attitudes and encourage participation. This will need to involve industry bodies such as Agforce, National Farmers, GRDC, MLA, NRM groups and banks.
- Recognise that management of climate risk is a high-level management skill so that quick intermittent activities with producers (e.g. one-off one-day workshops) have very limited capacity to cause change unless part of a much broader plan.
- Require focus on both student and the existing work force via adult education, and deliver a high proportion of information and interactive dialogue through on-line activity but also maintain face-to-face interaction as a priority.
- Seek to influence other disciplines (e.g. via university courses and professional development) so there is depth and breadth in approach to better management of climate risk across all parts of primary industry and environmental management.
- Begin with the end in mind by defining the specifics on structural changes that are needed to best deliver education and extension on managing climate risk over the next 50 years to achieve the required changes.
- Monitor changes in the capacity of primary industries to manage climate risk.

Thanks once again for the opportunity.

Yours sincerely,

Jeff Clewett

References

- Agarwal, R, Bajada, C, Brown, P, Moran, I & Balaguer, A 2019, Development of management capability scores, University of Technology Sydney & Department of Industry, Innovation and Science research paper 10/2019, Commonwealth of Australia, Canberra.
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- George DA, Clewett JF, Birch CJ, Wright A & Allen WR (2007) 'Development and accreditation of an applied climate education unit for sustainable land use in Australia', *Journal of Sustainable Agriculture*, vol. 29(4), pp. 87-108.
- George DA, Clewett JF, Lloyd D, McKellar R, Tan P-L, Howden M, Rickards L, Ugalde D, Barlow S (2018) Research priorities and best practices for managing climate risk and climate change adaptation in Australian agriculture. *Australasian Journal of Environmental Management* 26(1): 6-24. (Attached)

Biographic details for Jeff Clewett. A key part of my agricultural research and extension career in managing climate risk has been working with primary producers in hundreds of workshops, initially while developing the Rainman and DroughtPlan packages with an emphasis on climate variability and impacts of El Nino and La Nina, but also later in addressing climate change. I graduated from UQ in 1969, and worked as a DPI researcher (farm dam irrigation) on the climatically variable Mitchell grass plains of north west Queensland and then in central Queensland for ten years on forages for beef production. I consulted for 12 years on projects such as the Agforce Grains BMP project on managing climate risk (Clewett 2012) and am now engaged in research at USQ using the GRASP model with long-term weather data to evaluate effects of land type, climate and grazing pressure on the sustainability of pasture growth and the economic viability of beef production.