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Productivity Inquiry
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

SA Drought Resilience Adoption and
Innovation Hub
The University of Adelaide
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Dear Commissioners,

The South Australian Drought Resilience Adoption and Innovation Hub (SA Hub) welcomes the opportunity to provide a submission on the Productivity Commission's Interim Report of the Review of Part 3 of the Future Drought Fund Act 2019.

Responses have been provided to specific information requests from the interim report. Overall, the development of detailed Future Drought Fund investment plan with fewer, larger integrated programs would aid in co-design, integration and coordination of delivery. This will help to avoid any gaps and limit risk of duplication of effort. Moreover, such an approach would maximise measurable benefit for farmers and regional communities. This approach will also aid in communicating with stakeholders about the target outcomes of each program, the connections between and the opportunities to engage in programs.

Information request 1

Feedback during development of a business case for the Innovation aspect of the SA Hub from Hub members has been supportive of a scope expansion for building resilience to climate change. Many of the priorities and activities of the SA Hub already enhance drought preparedness and climate change resilience. There is potential for greater scaling of such activities that are aligned with drought resilience as defined in the Drought Resilience Funding Plan (2020-2024). Such activities have wide (multi-region) applicability with potential for regionalised solutions. An example is feedbase improvement that enables greater enterprise resilience for a given seasonal scenario coupled with improved maintenance of groundcover. In such an example there are likely greenhouse gas emissions (GHG) intensity reductions that can be achieved. The GHG emissions intensity reductions are a secondary outcome and should not be the focus of the FDF given other mechanisms available to directly reduce agricultural GHG emissions.

Information request 2

There is significant potential to co-design and deliver activities that lead to measurable improvement in both economic and environmental resilience. Activities funded could be informed through identification of on-farm practices that are known to achieve natural resource management outcomes together with economic and productivity benefits. In livestock, one example may be optimised use of containment feeding to manage landscape groundcover as well as stock health and body condition. In such an example primary producers could be assisted to measure environmental and enterprise performance to test and establish the causal relationships for different enterprise types, across regions and years.

Opportunity exists for synergistic target outcomes to be identified between FDF and National Landcare Program for activities involving common stakeholders. Resourcing from FDF could be targeted to outcomes most closely aligned with drought resilience whilst ensuring activities are not



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occurring in isolation from other programs. Where there are common or synergistic target outcomes co-development of programs that facilitate coordinated delivery for drought resilience and natural resource management activities would be beneficial. In such a scenario resourcing from FDF could be targeted to outcomes most closely aligned with drought resilience.

Information request 3

During the start-up phase the SA Hub undertook state-wide consultation on priorities to strengthen drought preparedness and resilience. Workshop participants identified that community, and farm business operations and financial resilience are essential to improve drought resilience with individual and community resilience and wellbeing prominent topics at all workshops. The insights from consultation highlight the importance regional communities and stakeholders place on individual wellbeing and social resilience in contributing to drought resilience. Whilst the SA Hub activities have primarily focused on on-farm drought resilience one aspect of the SA Hub, led by Associate Professor Kate Gunn, has been focused on considering the opportunity for a coordinated approach to promoting resilience and wellbeing underpinned by objective evaluation metrics. This is very important given the role wellbeing has in making best decisions related to farm management with high applicability for long term drought resilience in regional and remote communities.

Information request 4

During the period of the current Funding Plan (2020-24) there has been some instances of missed opportunity in activity coordination, alignment and integration within FDF activities. As described in the interim report (p66 & 67) strengthening the theory of change to better describe how strategic priorities of economic, environmental and social resilience are mutually reinforcing will assist in development of a more detailed investment plan to accompany the 2024-28 Funding Plan. Importantly, this assists in the design, sequencing and coordination of activities delivered through FDF and helps to maximise impact and minimise risk of gaps and/or duplication. Hubs have undertaken significant stakeholder engagement to identify regional priorities. There is potential for the work undertaken by Hubs to assist in identifying higher-level national and/or multiregional priorities that can help inform a detailed investment plan. Such an approach provides potential to inform activities that will deliver measurable transformational change in drought resilience.

Information request 5

The development of a more detailed investment plan alongside the Funding Plan will assist in creating greater measurable impact from the FDF. As described above there is opportunity to draw on resources of Hubs in helping inform priorities. The regional priorities can be aggregated to national targets but still enable regionalisation of solutions which best utilise relevant networks.

Information request 6 and 7

MEL frameworks in the FDF have largely focused on reporting outputs and deliverables to date with less effort focused on measuring outcomes that can indicate the degree of drought resilience programs have achieved. There are many examples of MEL frameworks being successfully employed to measure the outcomes created by agricultural programs, with Lifetime Ewe Management Program evaluation (<https://www.publish.csiro.au/an/an10164>) providing a good example of this. There is opportunity to identify common economic, environmental and social metrics as indicators of drought resilience across the fund and employ standardised methods of data collection to ensure consistency and compatibility. This will need the flexibility to accommodate a range of industry sectors, program

types within them, and different environments, but if employed correctly, will provide program specific and whole of fund data aggregation to enable the impact of investment to be determined.

An effective method of monitoring, evaluation and learning may be to undertake basic assessment of outcomes that have been realised for all project or program participants then undertake more detailed outcomes assessment of a representative cohort of those participants. This approach would identify where there is alignment between responses of the detailed assessments with the standard assessment and statistically determine the likelihood that outcomes have been achieved across the wider group of participants. This method has been employed in NRM MEL frameworks and provides a realistic method of determining outcomes that doesn't rely upon all participants taking the time to provide detailed information.

Information request 8

The options detailed in the interim report appear well placed to improve engagement with, and benefits for, Aboriginal and Torres Strait Islander people. A further potential option is described; the SA Hub has recently established Ngarrindjeri Climate Yarning co-designed activity led by the Ngarrindjeri Aboriginal Corporation with collaboration from Murraylands and Riverland Landscape Board. This approach was highly effective in engagement of Ngarrindjeri community members, together with climate scientists and ecologists in knowledge sharing to enable a greater understanding of cultural knowledge related to drought resilience and climate change. The outputs from this activity can help inform decision making practices for Yarlwar Ruwe - land and water – management in the region. The potential for expansion within the SA Hub of this approach is being scoped.

Information request 9

Consistent with the interim report, within the SA Hub some members have expressed reservations about DR.SAT as a standalone tool. Given this, within the Better Climate Information program, it is likely the greatest value for a given investment can be derived if Drought Resilience Self-Assessment Tool (DR.SAT) is integrated with Climate Services for Agriculture (CSA) rather than continuing funding for both. Consultation with users/potential users coupled with expert input could inform how best to incorporate element of DR.SAT into a consolidated tool.

Information request 10

The Interim report information request on potential design of Farm Business Resilience program to achieve greater environmental resilience and/or be better coordinated with other Future Drought Fund programs has significant potential. From the initial SA Hub consultation workshops the following priorities were identified a) Farm Business Management, b) Farm planning and decision making to manage climate and operational risk, c) Native vegetation, biodiversity, pest management strategies, technologies, and innovations, and d) Soil and land management strategies, technologies, and innovations. Scope exists for co-designed activities that together achieve measurable outcomes across each of these priorities. It is likely this is best achieved as a series of purposefully coordinated &/or integrated co-designed activities facilitated through greater coordination across Future Drought Fund programs.

Information request 12

Utilising a challenge-oriented approach to innovation focused on drought resilience has significant merit. Hub consultation outcomes coupled with existing consultation/advisory groups established through Future Drought Fund programs may help inform such challenges. An example of a locally identified challenge-oriented need that has potential multi-region applicability is described. Within the SA Hub, the Stakeholder Advisory Groups of Orroroo and Port Augusta Nodes have recognised climate change and drought has the potential to significantly impact on primary production businesses in the low rainfall environments of South Australia. Two examples are Flinders Ranges (livestock production, Port Augusta node) and the northern areas of the Upper North (mixed livestock and cropping, Orroroo Node). Optimal enterprise design in these regions, and analogous regions, throughout Australia for drought resilience is unknown. Moreover, other potential market drivers and opportunities, including greenhouse gas emissions abatement (or carbon sequestration) and biodiversity add further complexity to consideration on optimal enterprise design for drought resilience. This example may justify a staged 'challenge-oriented' approach to forming, and then locally validating enterprise mix solutions to support wider adoption efforts. Moreover, if successful, such an approach would deliver measurable transformation change.

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