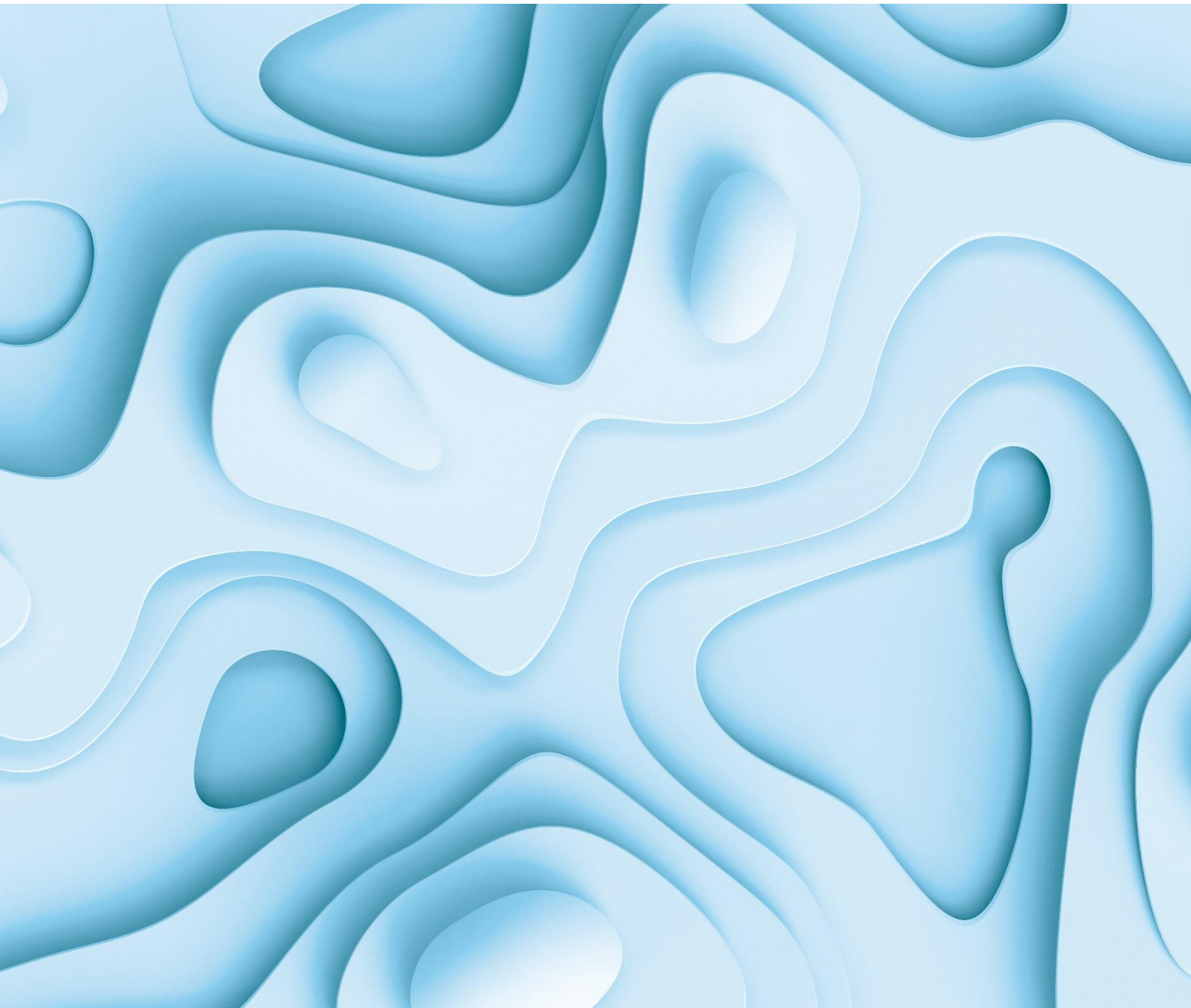




Review of Part 3 of the Future Drought Fund Act

Inquiry report



The Productivity Commission acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, waters and community. We pay our respects to their Cultures, Country and Elders past and present.

The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

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8 September 2023

The Hon Dr Jim Chalmers MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

In accordance with section 11 of the *Productivity Commission Act 1998*, we have pleasure in submitting to you the Commission's final report into the effectiveness of Part 3 of the *Future Drought Fund Act 2019*.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Joanne Chong'.

Joanne Chong
Commissioner

A handwritten signature in black ink, appearing to read 'M. Roberts'.

Malcolm Roberts
Commissioner

Terms of reference

I, Jim Chalmers, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998*, and section 32A of the *Future Drought Fund Act 2019* (the Act), hereby request that the Productivity Commission (the Commission) undertake an inquiry into the effectiveness of Part 3 of the Act.

Background

The Future Drought Fund, established by the *Future Drought Fund Act 2019* (the Act) provides secure, continuous funding for programs, grants and arrangements that support Australian farmers and associated communities to prepare for, and become more resilient to, the impacts of future droughts. Building drought resilience is a complex and long-term endeavour. It requires tailored and practical support reflecting the unique circumstances and diverse needs and aspirations of different farmers, their communities and agricultural industries.

Under the Act, \$100 million is made available each year for drought resilience programs, arrangements and grants. The design and delivery of such programs, arrangements and grants is guided by a Drought Resilience Funding Plan and governed by Part 3 of the Act.

On 12 February 2020, the then Minister for Agriculture, Drought and Emergency Management made the *Future Drought Fund (Drought Resilience Funding Plan 2020 to 2024) Determination 2020* (the Funding Plan). This Funding Plan sets out a 4-year framework to guide the design and delivery of programs, grants and arrangements under the Act.

A first tranche of programs was announced on 1 July 2020, at the same time the first \$100 million became available. This has been built on with successive programs, announced in the context of federal budget processes. Programs are in varying stages of delivery.

As a new and enduring initiative, a range of foundational systems and processes have been established to support administration of Part 3 of the Act.

Under section 32A of the Act, the Commission must periodically undertake an inquiry into the effectiveness of Part 3 of the Act, including the Funding Plan that is in place. A referral for the first inquiry must be made by 12 February 2023. Under the Act, this inquiry process is followed by a requirement to establish a new Funding Plan by 12 February 2024.

Scope of the inquiry/research study

In accordance with section 32A of the *Future Drought Fund Act 2019* (the Act), the Inquiry must undertake an assessment of the effectiveness of Part 3 of the Act, including:

- The Future Drought Fund (Drought Resilience Funding Plan 2020 to 2024) Determination 2020
- programs, arrangements and grants made under Part 3 of the Act
- processes and systems to administer, govern and evaluate programs, arrangements and grants made under Part 3 of the Act.

As also required by section 32A, the Commission should have regard to economic, social and environmental outcomes in assessing these matters.

In undertaking the Inquiry, the Commission should also:

- Consider the effectiveness and appropriateness of the Funding Plan in guiding progress towards the objective of drought resilience.
- Consider the effectiveness, efficiency and appropriateness of the programs, arrangements and grants in delivering against the Funding Plan and objective of drought resilience.
- Consider the effectiveness, efficiency and appropriateness of Part 3 of the Act, including its administration through the systems and processes established to develop, deliver, govern, monitor and evaluate programs, arrangements and grants.
- Provide specific and practical advice to inform the development of a new Funding Plan; the development, delivery, monitoring and evaluation of future programs, arrangements and grants; and the processes and systems to administer the Fund.

In addition to these general evaluation questions, the Commission is asked to also consider:

- Opportunities to enhance proactive collaboration in planning and delivering drought resilience initiatives, including with state and territory governments.
- Opportunities to enhance engagement with, and benefits for, First Nations peoples.
- The merits of longer planning and program timeframes in building resilience.
- The merits of broadening the scope of the Fund to support resilience to climate change for the agriculture sector and communities dependent on agriculture.

Process

The Commission is to undertake a public consultation process as part of the Inquiry.

The Commission may elect to engage directly with stakeholders, including representatives from the farming sector. It is also specifically requested that the Commission consults with Future Drought Fund Consultative Committee and, the Australian, state and territory governments.

The final report must be provided within 8 months of the receipt of these terms of reference.

The Hon Jim Chalmers MP

Treasurer

[Received 10 January 2023]

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Acknowledgements

The Commission has drawn upon a range of information sources in preparing this inquiry. We thank inquiry participants for their submissions, brief comments and participation in meetings. We also thank the Department of Agriculture, Fisheries and Forestry who provided many detailed responses to questions on the Fund and its programs.

The Commissioners would also like to thank the staff who worked on the inquiry – Assistant Commissioner Adam Bogiatzis, who managed the process, and other team members including Angela Le, Ariun-Erdene Bayarjargal, Cameron Van-Lane, Catie Bradbear, David Pratley, Emily Gray, Erin Turner, Geoffrey Go, Matt Friedman, Owen Gabbitas, Pragya Giri, Toby Markham and Vanessa Boltman.

Overview

Key points

- * Drought and climate change are expected to put Australia's agricultural industries and regional communities under mounting economic, environmental and social pressure. The Future Drought Fund (FDF) could be a catalyst for locally led transformational change to meet these pressures.
- * Despite early challenges, the FDF is establishing a solid foundation for building drought resilience. The first years have revealed opportunities to improve the design and delivery of the Fund's programs, including through identifying gaps in existing resilience programs, more planning around how the FDF will prioritise programs and improved knowledge sharing.
- * A stronger focus on activities that generate lasting public benefits is needed. The FDF should focus on activities that generate transformational change, build natural capital, and support a place-based approach to building social resilience.
- * Drought is just one of the risks from climate change that farmers and agricultural communities face. While drought should remain the focus, the FDF should explicitly recognise climate change resilience to confirm that, where appropriate, programs address a broader range of climatic risks.
- * Establishing an Aboriginal and Torres Strait Islander working group to partner with the Department of Agriculture, Fisheries and Forestry could improve the design and implementation of the Fund for the benefit of Aboriginal and Torres Strait Islander people.
- * A number of FDF programs can be improved by:
 - consolidating the climate information tools into a single tool, tailored to the needs of end users
 - clarifying ownership, governance and funding for regional drought resilience plans
 - tightening eligibility and increasing support for natural resource management and transformational practices in the *Farm Business Resilience* program
 - supporting transformational change through the *Drought Resilience Innovation Grants* program by piloting a challenge-based approach to innovation
 - clarifying the role of the *Drought Resilience Adoption and Innovation Hubs* followed by a mid-term review of their performance
 - strengthening the links between regional planning and community grant funding to ensure a strategic, place-based approach to building social resilience.

A Fund to advance drought resilience

Farmers and regional communities in Australia have always battled climate extremes, such as droughts, floods and bushfires.

Managing these climate risks is an inescapable part of life and farmers and regional communities have demonstrated their ability to adapt. However, climate change will intensify pressures through more frequent and intense drought and climate conditions, which are likely to challenge even the most prepared farmers and communities.

Over time, governments have shifted their approach to supporting farmers and communities in regions vulnerable to drought. Governments generally no longer see drought as a natural disaster or an exceptional event. Drought is recognised as a business risk, which farmers themselves are best placed to manage. Government programs now focus more on supporting farmers and communities to prepare for, manage and recover from drought.

Announced in 2018, the Future Drought Fund (FDF) embodies this shift to supporting greater self-reliance and preparedness. The FDF's aim is to 'enhance the public good by building drought resilience in the agricultural sector, the agricultural landscape and communities' (box 1). The FDF *Drought Resilience Funding Plan 2020 to 2024* defines drought resilience as:

... the ability to adapt, reorganise or transform in response to changing temperature, increasing variability and scarcity of rainfall and changed seasonality of rainfall, for improved economic, environmental and social wellbeing.

As this definition notes, a resilient agricultural system can adapt and transform in response to drought and climate change. Incremental changes allow farmers to manage climate conditions while maintaining existing methods of production (for example, reduced tillage and weed control). Transformational changes, on the other hand, involve system-wide changes, including beyond individual farms, to reduce vulnerability to climate and drought risks (figure 1). The Fund can support the building blocks that enable transformative shifts and empower farmers and communities to make necessary changes, if they choose to do so.

The Fund's definition of drought resilience refers to economic, environmental and social resilience. This 'triple bottom line' approach to resilience takes a holistic view of the challenges to building drought resilience (box 1).

Every year, the FDF allocates \$100 million to drought resilience activities. Since its commencement in 2020, the FDF has rolled out 19 programs (figure 2). As at September 2023, 15 programs were operating.

Box 1 – Elements of the Drought Resilience Funding Plan 2020 to 2024

Vision

The Fund's vision is an innovative and profitable farming sector, a sustainable natural environment and adaptable rural, regional and remote communities – all with increased resilience to the impacts of drought and climate change.

Aim

The Fund aims to enhance the public good by building drought resilience in Australia's agricultural sector, the agricultural landscape, and communities.

Box 1 – Elements of the Drought Resilience Funding Plan 2020 to 2024

Strategic priorities

The Fund has three inter-connected strategic priorities:

- economic resilience for an innovative and profitable agricultural sector
- environmental resilience for sustainable and improved functioning of farming landscapes
- social resilience for resourceful and adaptable communities.

Objectives

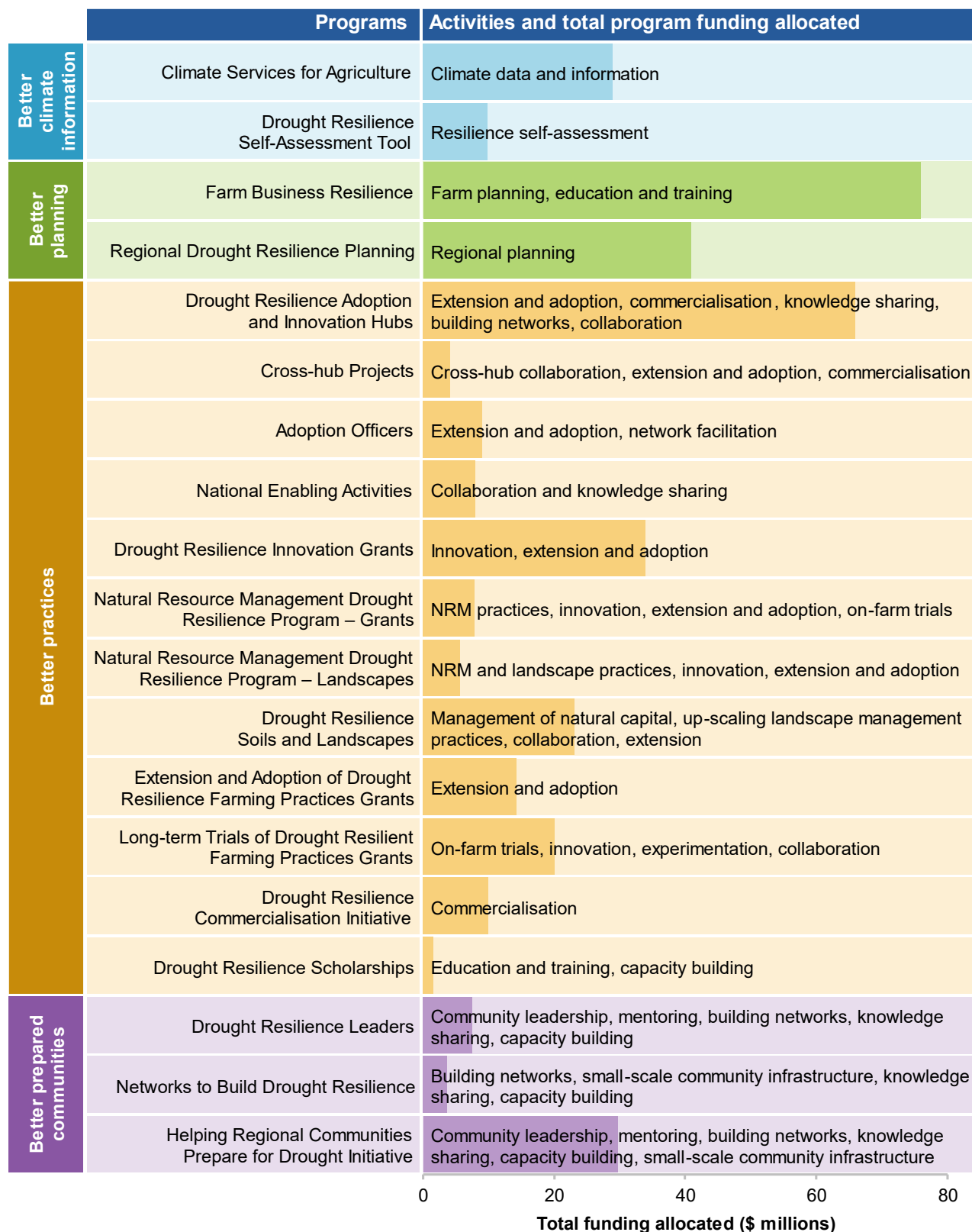
The Fund’s three objectives to achieve the strategic priorities will enhance the public good by building drought resilience through programs that will:

- grow the self-reliance and performance (productivity and profitability) of the agricultural sector
- improve the natural capital of agricultural landscapes for better environmental outcomes
- strengthen the wellbeing and social capital of rural, regional and remote communities.

Figure 1 – Examples of the types of change required for drought resilience

Type of change	Definition	Types of activities
Incremental change	The ability to preserve or restore a system (including its basic structures and functions) by preventing, preparing for or mitigating the impacts of an event or risk	<ul style="list-style-type: none"> • diversifying income with off-farm employment • using farm management deposits to make tax deductible deposits during good periods and withdraw them during bad periods • changes to crop variety
Transitional change	The ability to maintain the essential functions and structures of a system by modifying or changing some of its characteristics in response to future adverse events or risks	<ul style="list-style-type: none"> • changing aspects of a production system (such as seed varieties or agronomic practices) to continue the production of certain commodities in a region
Transformational change	The ability to undertake wholesale change of a system when adverse events or risks make the current system untenable	<ul style="list-style-type: none"> • shifting up-stream and down-stream supply chain infrastructure to reflect changed production systems • adopting new production systems such as grazing or carbon farming. • revegetating pasture with native vegetation • establishing conservation corridors across farmland

Figure 2 – The FDF provides funding to a large range of programs and activities^a
Total funding allocated to FDF programs under the 2020–24 Funding Plan



a. Funding allocated as at 30 June 2022.

The FDF's programs fall under four main themes: Better Climate Information; Better Planning; Better Practices; and Better Prepared Communities. The activities funded under these themes are diverse, including: online climate and drought data; natural resource management (NRM); research and adoption; innovation; community networks; leadership training; farm business planning; and regional drought planning (box 2).

A total of \$400 million was allocated to programs under the first Funding Plan. Programs under the Better Practices theme accounted for the greatest proportion of funding, totalling \$203 million, followed by programs under the Better Planning theme (\$117 million). The Better Climate Information and Better Prepared Communities themes were allocated about \$40 million each (figure 2).

The Commission's task

The Productivity Commission has been tasked with assessing the effectiveness of aspects of the FDF such as the Funding Plan, programs, arrangements and grants established by the Fund (Part 3 of the *Future Drought Fund Act 2019* (Cth)). This inquiry is intended to inform the development of the next four-year Drought Resilience Funding Plan (consistent with section 32A of the Act).

At this stage the extent to which the Fund is building drought resilience is unknown. The Fund has only been operating for three years and programs are at varying stages of delivery, with some programs yet to be rolled out. While there is limited data available, the Commission has been able to draw upon Fund reporting, monitoring, evaluation and learning (MEL) plans and extensive consultations with stakeholders, many of whom spoke positively about the outcomes being achieved under the Fund.

Further, the Fund has operated through a period in which most regions have not been affected by drought. The success or otherwise of the Fund's programs in building resilience will not be evident until tested by drought conditions.

Box 2 – Examples of activities funded by the FDF

Vocal Locals Program

A team at the University of South Australia received funding from the *Networks to Build Drought Resilience* program to run a 'Vocal Locals' social network campaign in Loxton (SA). Over two months, 10 local leaders were recruited and upskilled to drive engagement with workshops, online modules, and casual conversations about mental health and wellbeing.

Long-term Trials of Drought Resilient Farming Practices Grant

Charles Sturt University, as a consortium lead, received funding from the *Long-term Trials of Drought Resilient Farming Practices* grants program to investigate the interdependence and whole-system effects of cropping and livestock components and managing environmental and social impacts in response to seasonal variation across multiple trial sites in New South Wales.

Enhanced local weather forecasting

Stirlings to Coast Farmers (WA) received funding under the *Natural Resource Management Drought Resilience – Grants* program to install weather stations, soil moisture probes and digital rain gauges, and integrate the collected data into a dashboard.

Box 2 – Examples of activities funded by the FDF

Drought Resilience Leaders Mentoring

The Australian Rural Leadership Foundation (ARLF) delivered the *Drought Resilience Leaders* program where participants were connected with other farmers and professionals with experience in drought and climate resilience and adaptation for one-on-one mentoring sessions. The program is being continued through the *Helping Regional Communities Prepare for Drought Initiative*.

Almond tree irrigation research

Deakin University (Vic) received funding from the *Drought Resilience Innovation Grants* program (proof-of-concept grants) to research the water requirements of almond trees in the Riverina. The research project used knowledge of water stress thresholds and scheduled irrigation based on soil moisture levels and weather forecasting to determine the minimum irrigation requirements.

Restoring natural functions in central Australian rangeland catchments

A collaboration facilitated by the Northern Hub received funding from the *Drought Resilient Soils and Landscapes* program to demonstrate and scale landscape rehydration and regenerative grazing management practices in four demonstration sites across the Ti Tree and Lake Lewis catchment areas (NT). The practices aimed to increase vegetation cover and improve soil health to absorb and store water, with the results to be communicated across the Hub's network.

Governments' role in building resilience

Drought is an inevitable risk for farmers and communities. As business owners, farmers (and others in the agricultural sector) have good reasons to plan for and prepare to mitigate the impact of drought on their businesses. Similarly, protracted drought can take a heavy toll on agricultural communities, and it is in their interest to prepare for these risks. Individual farmers, industries and communities will decide their best strategies for managing drought risk. In some cases, incremental changes, such as improving the efficiency of farm production, will be sufficient. In other cases, over time, more fundamental, transformational changes may be necessary.

While the primary responsibility for preparing and managing the impacts of drought rests with farmers and their communities, there are circumstances when government support is appropriate.

There can be barriers that prevent farmers and communities from taking necessary actions. For instance, farmers may lack the necessary resources or information to manage drought risks. In a similar vein, governments may promote innovation and adoption of better practices to overcome information gaps.

Another barrier is when private investment is likely to generate significant public benefits (for example, a healthier environment for the community) but that investment may not happen because of the costs or risks for the private investor. A government contribution to reduce costs or risks may be needed to realise the public benefits. In such cases, the level of support should take into account the expected returns to the community.

These barriers to managing drought risk are likely to be greater where businesses and communities need to make transformational changes (figure 1), such as diversifying away from established commodities into new products and services. Transformational change will typically involve greater costs, risks and uncertainties

than incremental change. At the same time, the benefits – private and public – of successful transformation will often be more significant. The need for transformational change will be more acute in regions facing severe changes in climate conditions and, as such, the need for government support may be even greater.

The FDF should ensure the community is better off overall

A key justification for government policy is that, overall, the policy leads to the Australian community being better off – there is a net public benefit. The FDF is no different. Built into the Funding Plan, including in the second funding principle, is the notion that:

... funding must be able to be accessed and/or shared by many (public benefits), rather than be captured solely by individual businesses or industries solely for private commercial gain (private benefits). It also means the benefits achievable from the funding should outweigh the costs.

However, it is not clear the extent to which this test was applied when selecting activities to be supported. This may stem from the way the aim of the Fund – which is to ‘enhance the public good by building drought resilience in Australia’s agricultural sector, the agricultural landscape, and communities’ – is interpreted.

The aim suggests that any activity that contributes to economic, social and environmental resilience to drought is a public good and could merit government funding. However, this overlooks the fact that government resilience interventions also have costs, which can often fall to other sectors of the economy, and that many interventions offer benefits to a narrow group of individuals rather than to the broader public.

Relying on this interpretation to justify government support is particularly questionable in the case of the Fund’s first objective, which is to grow the ‘self-reliance and performance (productivity and profitability) of the agricultural sector’. Lifting the profitability of farm businesses to improve their resilience to drought is consistent with the aim of the Fund but the benefits of this publicly funded support are likely to be primarily private. While there may be a case for governments to support some programs that largely benefit private parties (for example, promoting the take-up of new technologies may result in more high performing agricultural businesses and a more productive economy), the hurdle for justifying support in such cases is high given the greater likelihood the government is funding activities that would have occurred anyway.

To remove any ambiguity, the Commission considers that the Australian Government should confirm that the FDF will only invest in drought resilience activities that are plausibly expected to lead to the Australian community being better off overall. The FDF’s aim should be amended to:

The aim of the Future Drought Fund is to build drought and climate change resilience in Australia’s agricultural sector, the agricultural landscape, and communities. The Fund will invest in activities with long-lasting benefits, that would not otherwise occur and that would lead to the Australian community being better off overall.

In practice, determining whether the community is better off overall is not simple. The costs and benefits of resilience activities are difficult to measure, in part because the concept of resilience is not easily defined. In some cases, the costs and expected benefits of an activity might be reasonably clear. For example, farm business planning should contribute to more profitable and productive farms – an outcome that can be readily measured. In other cases, such as building natural capital and community capacity, benefits may be dispersed and less easily measured. In all instances, there is also the challenge of finding a plausible causal link between the FDF investment and any improvement in resilience.

The Commission has heard from some participants that improving resilience today will reduce the need for assistance during future droughts. While better preparedness and drought resilience should reduce the need for in-drought support, any future savings cannot be guaranteed. The expectation of future savings is a

weaker justification for public support compared to instances when support removes barriers to investment and generates spillover benefits to the community that otherwise would not have occurred.

Opportunities for improvement in the next Funding Plan

The first three years of the Fund's operation have highlighted strengths and weaknesses in the design and delivery of the Fund and its programs.

Extensive consultation processes underpinned the development of the first Funding Plan. Some FDF programs, such as the *Drought Resilience Adoption and Innovation Hubs* (Hubs) and the *Regional Drought Resilience Planning* (RDRP) program, have led to greater collaboration between industry, natural resource managers, researchers and community groups. Critical information about future climate risks has been developed and disseminated through new tools. A growing number of farmers are participating in business planning and local innovative projects. After some initial issues, effective partnerships have been developed with states and territories for the delivery of the Better Planning programs.

Overall, the first three years of the Fund have been successful in establishing a range of new programs and partnerships. However, in light of issues that have emerged as programs have been implemented, there is scope for improvement. The Commission has identified opportunities to strengthen the Fund for the benefit of the community and to support the resilience of farmers and communities over the long term.

Advancing transformation, natural capital and local resilience

To produce greater public benefits and address market failures, the Commission believes the Fund should: focus on activities that advance transformational change; further emphasise activities that enhance natural capital; and continue to embrace a place-based approach to social resilience.

Supporting locally led transformation

As noted, some farmers, industries and communities will undertake transformational change to overcome drought and other climate risks.

As a perpetual fund, the FDF can provide the long-term funding often necessary to support transformation. It can also accept a greater risk appetite to support promising projects which may take time to yield results or are high risk/high reward.

The FDF can facilitate transformational change by establishing the building blocks to ensure farmers and communities have the capacity and pathways available to succeed. The building blocks to support transformational change include:

- information provision, such as climate change projections and research, to help farmers and communities understand the risks they face and the changes that may be required
- collaborative planning to help farmers and communities determine the changes required at a regional level and develop strategies to enact the necessary change
- extension services to advise farmers on the adoption of new technologies or practices.

To varying degrees, these types of activities are already supported by the Fund and more recent programs have adopted features, such as longer funding horizons, which could support greater transformational change (for example, the *Long-term Trials of Drought Resilient Farming Practices* program provides funding

to 2027-28 to trial innovative farming practices). Nevertheless, further improvements could be made, including:

- trialling a challenge-oriented approach to innovation grants
- improving the way regional drought resilience plans identify and support transformational challenges and opportunities
- ensuring the *Farm Business Resilience* (FBR) program provides the advice and tools necessary for farmers to plan and prepare for change.

Building natural capital

Agricultural production systems rely on the natural capital of landscapes – the soil, air, water, plants, animals and other factors. Natural capital can also provide less tangible ecosystem services, such as climate regulation, and cultural heritage and recreation. Agricultural landscapes with healthy natural capital are more productive, sustainable and resilient to shocks, including drought.

As a result, activities that manage, preserve and enhance natural capital can benefit individual farmers and, in many cases, the broader community through greater economic and environmental resilience. Examples include land management practices that improve biodiversity and ecosystem health and preserve native vegetation.

The FDF already funds programs – or activities within programs – to improve management of natural capital. These initiatives include the Drought Resilient Soils and Landscapes Program, cross-hub projects, the Drought Resilience Innovation Grants program and the FBR program. While the evidence on these programs is inconclusive, participants have told the Commission that these programs are changing practices.

The value of enhancing natural capital is recognised in programs outside the FDF, such as the Australian Government's National Landcare Program and Agriculture Biodiversity Stewardship Package, as well as other state and territory programs. However, this also points to the importance of ensuring that the FDF is aligned with these programs, leveraging funding to yield better results (where possible) but otherwise avoiding wasteful duplication.

The Commission considers that the FDF could deliver more benefits – for farmers and the wider community – through a greater emphasis on activities that contribute to the resilience of natural capital and that would not otherwise have been undertaken. The Fund can achieve this in two key ways.

- Devoting a greater share of funding to programs that deliver natural capital benefits, such as the Drought Resilient Soils and Landscapes program, particularly where the benefits extend beyond the individual landowner, or funding NRM related activities identified through regional drought resilience plans.
- Amending existing programs, such as the FBR program and Hubs program, to strengthen the uptake of NRM activities.

This emphasis should be built into the proposed investment plan (below).

Supporting a place-based approach to social resilience

One of the objectives of the Fund is to strengthen the wellbeing and social capital of rural, regional and remote communities. However, identifying local needs, measuring outcomes and delivering activities to benefit local communities poses program design challenges. The Fund's foundational community programs took a nationally led approach to building social resilience, however this approach can be challenging to effectively target at a local and/or regional level and design appropriately tailored solutions.

Social resilience projects targeted through the regional drought resilience plans provide a place-based approach that may be more appropriate. A place-based approach involves farm and non-farm segments of

the community taking an active role in assessing their own social needs, opportunities and possible strategies for reducing the social impacts of drought.

A collaborative and local approach to social resilience can help ensure activities reflect community needs. For instance, regions may differ in their needs regarding local leadership. Some may benefit from a national program that leverages cross-region connections, while others may prefer to engage local leadership training providers or target informal support for local leaders who already exist.

Giving local communities greater ownership and shared decision-making in building their social resilience is likely to be more beneficial relative to a nationally driven approach. The Department of Agriculture, Fisheries and Forestry has recognised this by ensuring that the second phase of community grants are developed through a co-design process that prioritises organisations with links to regional drought resilience plans. However, there may still be further opportunities for the Department to incorporate community programs into regional planning processes. The effectiveness of this approach should be reviewed at the end of the next funding plan period and alternative delivery methods considered if the program has not been able to target community needs.

Strengthening inputs to FDF design and delivery

Identifying areas of greatest need

The FDF overlaps with numerous Australian, state and territory government programs. This creates opportunities for the FDF to work with other programs but also risks duplication and cost-shifting. Realising the full potential of the FDF requires comprehensive, periodically updated assessments of the best opportunities for the Fund to build resilience.

The next Funding Plan is a natural point for the Department to map Australian, state and territory government policies and programs that support agriculture, land management, drought resilience and climate change resilience. This process would identify overlaps, help ensure Fund activities are well targeted, and identify opportunities for partnerships, collaboration and leveraging of other programs. The mapping exercise could also inform any changes in the scope of the Fund or clarification around the types of activities it would support, based on the extent to which there are other programs with similar aims.

Once complete, the findings of the mapping exercise could be used as a key input to the investment plan (below). While it is unlikely that this exercise could be undertaken before the finalisation of the next Funding Plan, it could inform decisions about prioritisation of activities, as well as lead to adjustments in priorities for individual programs, during the next Funding Plan.

A detailed investment plan would help

The lack of a clear fund-wide investment plan has limited the prospects of the Fund achieving its objectives. During the first year of the Fund, there were missed opportunities for sequencing and coordinating programs, with multiple programs funded for one year rolled out simultaneously. The Funding Plan outlines general guidance for what could be done – the rules within which the Fund must operate – as well as identifying objectives and strategic priorities. However, the Plan does not explain what will actually be done, including how funds are to be allocated across the FDF's activities and programs to achieve these outcomes.

An investment plan would articulate how the FDF's objectives will be achieved. A detailed, public investment plan will help set expectations and allow stakeholders to understand the FDF's funding activities across programs, while improving transparency and accountability. The investment plan could explain:

- the strategy for achieving FDF objectives in the longer term (including building climate change resilience)
- what activities and programs will be prioritised over the next four years

- the theory of change underpinning the programs and investment priorities
- how the Fund will support transformational change
- the funding process, including how funding is to be delivered (for example, through a grant round or via a delivery partner)
- how funding is monitored and reported
- the sequence and scale of FDF activities
- the outcomes funded activities are expected to achieve
- how the funded activities are integrated
- how FDF activities will interact with other non-FDF policies and programs.

The investment plan should remain independent of the Funding Plan, as it does not need to be a legislative instrument. This will allow for flexibility in the timing of its development and for the investment plan to be adjusted as needed.

Improving the funding principles

The Funding Plan outlines 17 principles that are intended to guide the arrangements and grants made under the Fund. The principles are broad, covering aspects such as diversity, community involvement, Fund processes, information sharing and expectations of outcomes.

It is not clear how the Department draws upon these principles when making funding decisions. Further, the principles lack clarity and in some cases are ambiguous. The wording in the Funding Plan implies the principles apply to individual programs and grants, yet some are more applicable to the Fund as a whole (for example, 'support a range of activities or projects at a mixture of levels, such as the farm, regional or national level').

The Commission is proposing changes to improve the use of the principles and minor amendments to some principles to clarify how they are applied and interpreted (figure 3).

First, changes could be made to the wording of the principles so they are more intuitive and it is clear which principles apply to the Fund as a whole and which apply to individual programs.

- The fund-wide principles guide decision-making about the mix of programs and approval processes. These principles signal that the FDF will fund a mix of programs that will provide the greatest benefit for the community.
- The remaining principles apply to each FDF program, both at the program planning stage and on an ongoing basis. These principles could be organised to indicate whether they are relevant to the strategic fit, community impact or delivery of a program.

Second, the Department should provide further detail in the Funding Plan on the purpose and use of the principles. This would include information on how the principles are applied when making funding decisions, the intended audience for the principles and the implications for funding applicants.

Figure 3 – The Commission’s proposal for revised funding principles^a

Fund-wide principles		
<p>These principles support decision-making around the mix of programs and the processes for approving them.</p> <p>The Government should ...</p>		
<p>(6, 7, 10) facilitate a mix of programs that, together, create the greatest public benefit, taking into account:</p> <ul style="list-style-type: none"> • a mixture of levels (farm/regional/national) • the type of change required (incremental, transitional and transformational) • the diversity of people, businesses and landscapes involved in agricultural production, including First Nations organisations and communities 		
<p>(12, 15) take a transparent, structured, and contestable process to prioritising projects, based on qualitative and quantitative evidence</p>	<p>(9) streamline eligibility processes and minimise compliance costs on businesses, community organisations and individuals</p>	
Individual program principles		
<p>Programs funded by the Future Drought Fund must be consistent with these principles.</p>		
Strategic fit The program ...	Societal impact The program ...	Delivery The program ...
<p>(1) is consistent with the Vision, Aim, Strategic Priorities and Objectives outlined in the Future Drought Fund Plan</p>	<p>(2) delivers a net public benefit</p>	<p>(11) collaborates and partners with existing community networks, First Nations organisations and communities, natural resource management organisations, industry and farmer groups</p>
<p>(3) is not in-drought assistance</p>	<p>(4) avoids duplicating existing programs, or where there are overlaps, builds upon existing programs</p>	
<p>(16) does not have ongoing operational or maintenance dependencies unless it can demonstrate these will produce an ongoing net benefit</p>	<p>(14) has enduring long-term outcomes and reduces barriers to change or adaptation</p>	<p>(17) ensures that new knowledge is shared, accessible and freely made available in the public domain</p>
<p>(8) adopts a user-based lens and, where possible, a community led, co-design, and/or end-user approach</p>		<p>(new) undertakes monitoring and evaluation to ensure a continual process of learning and improvement</p>
<p>(13) requires private co-investment, as far as practicable, where projects are expected to deliver private benefits</p>		

a. The numbers in brackets refer to the number of the principle in the FDF’s first Funding Plan.

Tightening the theory of change to prioritise investments

The FDF's theory of change sets out a hypothesis of how the strategic priorities (economic, environmental and social resilience) contribute to realising the vision of the FDF. However, it could better describe how the priorities are mutually reinforcing, and how the FDF's activities are expected to achieve these priorities. Improving one form of resilience may have positive effects on one or both other forms. More awareness of the connections between the strategic priorities would help policy makers and program developers decide where the strongest (direct and indirect) results can be achieved. The FDF's theory of change should:

- define the intended outcomes of the FDF and its activities
- guide what the Fund could strategically invest in and in what sequence, in the short, medium and longer term
- describe how FDF programs work together to drive incremental, transitional and transformational change
- consider the changes required for supporting transformational change, and articulate those that would have the greatest impact
- describe how FDF programs mutually reinforce economic, environmental and social outcomes
- articulate the roles of key participants and their networks (for example, NRM groups, grower groups, Rural Research and Development Corporations and innovation institutions)
- outline the assumptions between activities and outcomes.

More explicit recognition of climate change

While described as a drought resilience fund, in practice, the FDF also funds activities to build resilience to the changing climate. Indeed, the 2020 to 2024 Funding Plan refers to climate change as part of the FDF's vision. But this has created ambiguity about whether, and if so what, climate change resilience activities are within the scope of the FDF's programs.

The terms of reference asked the Commission to consider whether the Fund's vision and aim could more explicitly incorporate support for climate change resilience. Some participants considered that a greater emphasis on climate change would lead to uncertainty about Fund priorities and decrease support for existing FDF activities. Others suggested that drought requires a dedicated fund given it differs to other climate change risks such as flooding or increased storm activity. Moreover, some participants raised the risk of overlap with other climate change and natural disaster policies.

However, most participants supported more explicitly acknowledging that the Fund assists farmers and communities to build resilience to climate change, given:

- the FDF already recognises a broader range of climate pressures than just drought. Clarification of the scope of activities supported (and not supported) by the Fund would provide more certainty to stakeholders
- drought is not a term that resonates in some regions (for example, the local concern may be changing wet and dry seasons)
- drought is only one climate risk that farmers and rural communities must manage
- many of the Fund's activities are as relevant to building climate change resilience as building drought resilience. Collaborative planning, building natural, social and human capital, information provision and diffusion, and research, development and extension are key to building drought and climate change resilience and are all supported by the Fund.

On balance, the Commission considers that the next Funding Plan should more explicitly recognise *building drought and climate change resilience*. Further, any changes made by the Department to the MEL Framework and theory of change, along with the development of the investment plan, as recommended, should take this change into account.

However, the Commission does not expect, or recommend, that explicitly recognising climate change resilience as within scope should result in new climate change programs – drought should remain the focus of the FDF during the next Funding Plan. Rather, an explicit recognition of climate change is intended to clarify that, where appropriate, relevant programs can consider a broader range of climatic risks. For example, farmers participating in the FBR program could develop plans that consider all climatic risks not just drought. Similarly, communities that develop regional drought resilience plans could consider a broader perspective so that regional activities to build drought resilience also seek to build resilience for other climate extremes or natural disasters.

To provide further clarity, there may be merit in the Department developing an indicative list of climate change related activities that would be outside the Fund's scope. As with drought resilience, the Fund should not invest in climate change activities that are already being undertaken by other programs, and activities should remain focused on agriculture, agricultural landscapes and communities dependent on agriculture. For these reasons, the Commission considers there may be a case to exclude climate change mitigation, biosecurity, public water infrastructure and disaster preparation and response activities from the scope of the FDF.

Sharing knowledge across the Fund

The FDF aims to generate a wealth of information and knowledge to assist farmers and communities in building drought resilience. Sharing this knowledge across the Fund can support the diffusion and application of drought resilience techniques and tools among primary producers and communities. It is a key reason for public investment in resilience activities.

However, the Fund does not have a strategy or plan for the generation, management and sharing of information and knowledge. FDF outputs are difficult to find and interpret, inhibiting the use of the information and knowledge generated from the Fund.

The Department should develop a knowledge strategy to promote learning and improve the accessibility, sharing and uptake of FDF information and knowledge. It would also provide greater transparency over the Fund's activities. The strategy could:

- identify measures to improve the generation, dissemination and uptake of information and knowledge across the Fund in an integrated way, tailored to the preferences of end users
- define the roles and responsibilities of different parties across the Fund in generating, disseminating and promoting uptake of FDF knowledge, including the Department, delivery partners, participants, Hubs and Hub Knowledge Brokers
- outline the best model for implementing a knowledge management system
- contain appropriate protections for Indigenous Cultural and Intellectual Property.

A variety of approaches are needed to facilitate learning and knowledge uptake. For example, participants have noted that many farmers tend to learn best from local networks and trusted sources. The strategy could therefore consider ways to leverage these opportunities and how best to identify and engage with target participants during the design and delivery of Fund programs.

In developing the strategy, the Department could examine the best model for implementing a knowledge management system. The system could take a number of forms and could range from sharing only key FDF information and knowledge on relevant websites to a more complex, integrated platform with relevant FDF and other drought and climate change resilience information. In determining the best model to implement, the Department should consider: the needs of, and likely benefits to, farmers, intermediaries and other users; what and where information is shared; opportunities to leverage existing platforms; the potential to expand the platform over time; and the costs of implementation.

More effective monitoring, evaluation and learning

Monitoring, evaluating, learning and reporting on the performance of the FDF is essential to its success. MEL activities are needed to determine whether funding is contributing to drought resilience, support knowledge transfer, improve programs during implementation and inform the development of new programs.

While the Department and delivery partners have made progress implementing MEL activities (for example, developing program and project MEL plans, completing progress reports and commissioning a mid-term evaluation of the Funding Plan), the current MEL system is not adequate to track Fund progress.

Establishing a comprehensive MEL system was hampered by the quick roll out of programs and a lack of dedicated resources. MEL activities have been focused largely on individual programs rather than the overall Fund. Further, the success measures and indicators for several programs focus on inputs or outputs, rather than outcomes, and as a result, assessments have provided limited understanding of how these programs have contributed to drought resilience. For example, the Better Prepared Communities programs measure success through attendance numbers and size of networks, which does not meaningfully capture how the programs are contributing to a community's resilience to drought. The program theory has also been of limited use in guiding what performance outcomes should be monitored.

More work is needed to assess the effects of the Fund and the collective outcomes of its programs. To do this, the Department should develop and implement a framework to measure drought resilience, including indicators to measure economic, environmental and social resilience. The Department should work with stakeholders to identify fund-wide performance measures and develop a measurement approach, assign responsibilities and ensure collection, reporting and analysis of the data over time.

At the program level, assessments should facilitate greater understanding of activities' effects on drought resilience, which requires the development of appropriate performance indicators to measure progress. Undertaking longer-term monitoring and reporting for some priority programs would also provide a better understanding of the long-term resilience benefits, including after the conclusion of an activity or program. There is also scope to streamline reporting obligations for delivery partners and grant recipients to improve consistency and comparability, reduce duplication and avoid unnecessary reporting.

To improve the MEL system, additional resources and capability will be required. Given the central nature of MEL to the ongoing success of the Fund, the FDF should provide dedicated funding to the Department to build capability (including of delivery partners) and implement fit-for-purpose MEL activities. Funding could also be allocated for updating the theory of change and developing a framework to measure drought resilience.

Improving outcomes for Aboriginal and Torres Strait Islander people

Aboriginal and Torres Strait Islander people have been caring for lands, waters and seas for tens of thousands of years as an integral part of culture and identity. Many Aboriginal and Torres Strait Islander people are directly or indirectly involved in agriculture. Large areas of land, particularly in northern Australia, are owned, managed and/or subject to other special rights for Aboriginal and Torres Strait Islander people. However, Aboriginal and Torres Strait Islander people remain underrepresented in the sector.

Many inquiry participants expressed interest in increasing the participation of Aboriginal and Torres Strait Islander people in the Fund's programs and governance, including through applying Indigenous knowledges to build resilience. However, Aboriginal and Torres Strait Islander people did not have opportunities to participate in shared decision-making about the objectives of the Fund, nor in its design, implementation or governance. The short-term nature of funding in the initial programs and narrow or strict grant requirements

have posed additional barriers. Broader structural barriers – such as the lack of clear protections for Indigenous Cultural and Intellectual Property, and mechanisms to ensure that Aboriginal and Torres Strait Islander people will benefit from sharing their Indigenous knowledges – have also impeded participation.

In line with governments' commitments under the *National Agreement on Closing the Gap 2020*, the next Funding Plan is an opportunity to foster strong, reciprocal and respectful partnerships with Aboriginal and Torres Strait Islander people in ways that enable shared decision-making in the design and delivery of FDF programs. There is potential for the FDF to create mutual benefits for Aboriginal and Torres Strait Islander people and the wider agricultural sector.

For the next Funding Plan, the Department should facilitate meaningful opportunities for Aboriginal and Torres Strait Islander people to define their goals for participation in the Fund, both at the national and local level. The primary step is to establish an appropriately resourced Aboriginal and Torres Strait Islander working group to partner with the Department to improve the design and implementation of FDF programs. These improvements would aim to better support engagement and strong partnerships at a local level. Areas that could be considered across the Fund and all programs include governance, MEL processes, and the protection of Indigenous Cultural and Intellectual Property.

Boosting Fund governance

The governance arrangements for the FDF are largely effective, given the size of the Fund and the likely program risks. That said, some modest changes are warranted to streamline arrangements and improve outcomes.

Due to the time and costs involved in the process, the Regional Investment Corporation (RIC) Board's advisory role is unlikely to be adding value to the FDF. There is no evidence the RIC Board's advice has led to better outcomes, and concerns have been raised about the costs and delays to programs due to the requirement for seeking advice from the RIC Board. The RIC Board's legislated role should be removed. The recent Independent Review of the Regional Investment Corporation reached the same conclusion.

The legislated timing of key processes could affect planning for the next Funding Plan. The Department has only five months to develop and finalise a new Funding Plan after the delivery of the Commission's inquiry. The appointment of a new FDF Consultative Committee at the end of a Funding Plan may not provide sufficient continuity for the next Plan. The Government should adjust the timing of these processes so that:

- the appointment of members to the Consultative Committee is staggered
- the Commission submits its final report no later than eight months before the end of the Funding Period
- the inquiry terms of reference are provided to the Commission twelve months in advance of the reporting date.

Governance, transparency and oversight of individual programs is addressed below.

Improving key programs

The Commission has examined each FDF program to identify opportunities for improvement. Findings and recommendations for key programs are outlined below.

A single climate information tool

The FDF provides climate information for farmers so they can understand their climate risks through two programs: *Climate Services for Agriculture* (CSA) and the *Drought Resilience Self-Assessment Tool* (DR.SAT).

- CSA is a digital platform providing historical, seasonal and future climate information, which can enable users to anticipate future conditions and draw comparisons with recent circumstances so as to undertake long-term business planning.
- DR.SAT is a resilience self-assessment tool designed to offer farm-scale information for farmers. It is intended to complement existing climate information tools and relies on data from the CSA platform.

The programs are intended to fill a gap in the market for climate services in the agricultural sector. Climate services transform climate data into tailored products, such as projections, trends, economic analysis, and best practice.

However, the uptake of both climate tools has been modest. Further, there does not appear to be a compelling reason to have two separate, interdependent and overlapping tools. For example, both tools provide historical climate data and future climate projections at a farm scale and they both provide impact assessments and pathway options for certain commodities.

The Department should discontinue funding for the DR.SAT tool and integrate its useful elements into CSA where possible. In transitioning to a single tool, the Department, in collaboration with delivery partners, could engage with end users to assess what elements of DR.SAT could be brought into CSA. The CSA's MEL plan could also be updated, given the program's changed functions, and the Department should monitor take up of the new tool to determine if support should continue.

Implementing regional drought resilience plans

The FDF funds the RDRP program in partnership with the states and territories. The program provides a place-based approach to drought resilience that aims to strengthen regional networks and collaboratively identify regional needs. Despite the coordination challenges this can pose – compounded by short delivery timeframes – early feedback on several draft foundational plans suggests they have been widely supported and many have successfully laid the foundation to build a collaborative regional approach to drought resilience. Some plans have a longer-term focus, which may mean their activities, if implemented, are more likely to contribute to transformational change.

Nonetheless, the pilot program experienced several issues, including challenges developing implementation pathways, a lack of clear ownership and difficulties accessing funding. While these issues are significant, they can be rectified for future iterations of the program. The Department should work with the states and territories to provide guidance on:

- implementation pathways for resilience activities identified through the planning process
- a preferred governance framework. The guidance could include expectations around accountability, implementation and MEL activities for lead organisations
- the sources of funding that are available from the Australian, state and territory governments, the types of activities that can receive funding through FDF grants and a timeline for this process.

More focus on public benefits in farm business planning

The FBR program, delivered in partnership with state and territory governments, is the largest FDF program (around 20% of total funding). The program supports farmers to manage risk by providing subsidised training in strategic business skills, risk management (including drought risk), NRM, and personal and social resilience. The program also funds tailored business plans for individual farms. The program is delivered in partnership with state and territory governments and aligns with a shared responsibility under the National Drought Agreement to encourage robust risk management and develop capabilities that improve farmers' decision-making and resilience.

There is evidence that improving farm business planning can enhance resilience to risks such as drought. However, in assisting farmers to make their businesses more profitable, the FBR program is providing a largely private benefit and could be subsidising activities that many farmers would have undertaken anyway. The benefits for the broader community are probably limited, particularly given there is little or no private co-contribution to the costs of the program.

The Commission is recommending changes to the program to provide greater public benefits, through two mechanisms.

First, program eligibility should be tightened so that it targets farmers with less experience and awareness of drought resilient practices (noting other Fund programs can cater to more experienced farmers). This could be done through tightening eligibility and requirements on participation, including potentially through applicants undertaking a self-assessment ahead of their participation in the program. The FBR program would also be able to link these eligible farmers to other FDF programs that might be beneficial.

Second, course content should prioritise material where there is the greatest public benefit, such as NRM and innovative on-farm practices that can support transformational change. This could include expanding natural capital modules to cover high impact activities such as long-term contingency planning and training on how to participate in environmental markets. There may also be scope to enhance the benefits of the program through a more structured peer networking component – including after the completion of the course – to support implementation of learnings.

Jurisdictions should balance the level of co-contribution with the likely public and private benefits that can be achieved through the program, taking into account the characteristics of participants and the nature of course content.

These changes may mean lower participation rates and therefore a lower funding allocation. This should not be considered a negative outcome. Greater targeting of participants and course content would generate greater community benefits and make funding available for other areas of the Fund that are more likely to produce public benefits. The Department should therefore assess demand for the program after these changes have been made, with the possibility of reallocating funding to other FDF programs.

Clarifying the role of Hubs

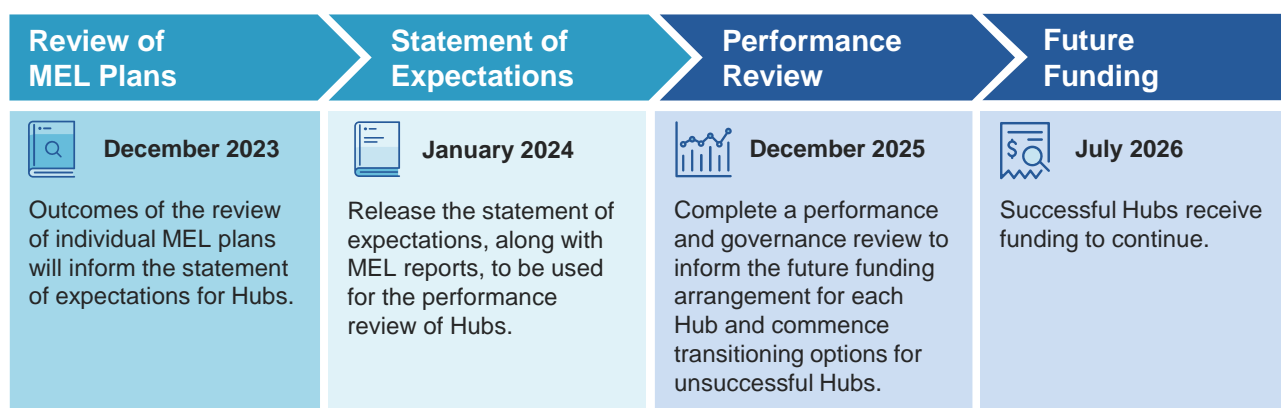
The eight Drought Resilience Adoption and Innovation Hubs create networks of regional stakeholders to develop, extend, adopt and commercialise drought resilient practices and technologies. Their activities have the potential to contribute to better resilience outcomes, including through promoting transformational change.

There has been some uncertainty about the role of Hubs and concerns they are duplicating or competing with (and missing opportunities to collaborate with) established services and networks. The Department partly addressed this issue in 2022 by confirming that the Hubs are to focus on extension and adoption of existing knowledge rather than generating new knowledge.

There is scope to further improve accountability and clarity about the role of the Hubs and their links to other FDF programs. In particular, the Department should develop and publish a statement of expectations for the Hubs program. The statement could: clarify the roles and responsibilities of the Hubs; confirm the focus of the Hubs on activities that support extension, adoption and scaling-up; and establish the outputs and outcomes they are expected to deliver. The statement could be informed by the review of individual MEL plans (figure 4), and link to the proposed investment plan and knowledge strategy (above). For example, there is a need to clarify the role of the Hub Knowledge Brokers in both the knowledge strategy and the Hub statement of expectations.

Funding for the Hubs should be extended for two years in the next funding plan period (starting from July 2024). However, beyond this, further funding for any individual Hub would be contingent on demonstrating adequate performance and governance in a review mid-way through the next funding plan period, and by the end of the 2025-26 financial year. Reporting in accordance with the MEL plans will be instrumental in informing this review.

Figure 4 – Proposed plan for the Hubs program in the next Funding Plan



Piloting a challenge-based approach to innovation grants

The Drought Resilience Innovation Grants program supports the development and adoption of innovative technologies and practices to improve the drought resilience of farmers and communities. A variety of projects are being supported at different stages of development, including: early-stage proposals; feasibility testing for new products, processes and services; and large-scale innovation projects. The FDF is a modest source of funding for agricultural innovation, with most innovation services delivered by universities, industry-led Rural Research and Development Corporations, and Cooperative Research Centres. Participants to this inquiry have suggested that industry innovation tends to be focused on finding and applying incremental improvements to production efficiency.

The FDF – through the Drought Resilience Innovation Grants program – can complement these activities. As noted earlier, an advantage of the Fund is that it can invest in longer-term projects that are less likely to yield early results, and accept greater risks than industry to support transformational change. Supporting innovation activities could help generate the step-changes required to enable farmers to build resilience over the long term.

Grants-based innovation programs often support a raft of innovation proposals across a broad range of industries and regions. An alternative approach would be to identify a regional, industry or system-wide challenge which could be tackled over the medium to long term. The project could focus on opportunities to use innovation to enhance the sustainability of regions highly exposed to drought and climate risks, including by assisting with sustainable diversification in those regions.

The Drought Resilience Innovation Grants program should introduce a pilot of the ‘challenge-oriented approach’ to innovation. The pilot sub-program could be developed and delivered with industry, the relevant Hub, and state, territory and local governments, leveraging financial and in-kind support from these partners. There may be opportunities to integrate the work supported by the sub-program with other FDF programs, such as the RDRP and FBR programs.

Effectively supporting social resilience

The programs under the Better Prepared Communities theme have supported local leaders, networks, mentors and community organisations to strengthen their social resilience to drought.

While there has been positive feedback from participants on these programs, it is inherently difficult to assess whether they will have an enduring impact on the resilience of communities. There is a risk the Better Prepared Communities programs are duplicating information provided through other FDF programs and could be better targeted to wider community needs, such as mental health services or events connecting the broader community.

One way of targeting regional and local priorities is through greater use of the RDRP process to identify social resilience needs. The RDRP program has had success bringing together diverse stakeholders within communities to plan for their region. Plans can provide an effective mechanism for the Australian Government to target the social resilience of communities and ensure funds go where they are needed most.

The Department has already pursued a stronger link between RDRP activities and community grant funding. However, the link could be further strengthened, particularly in developing a tighter relationship between the design and sequencing of regional drought resilience plans and community grant funding. The outcomes of this work should be reviewed over the next funding plan period to assess whether it is providing the type of social capital that will build social resilience to drought. The Commission understands efforts are also underway to invest in MEL activities for the program, which will be critical for its evaluation.

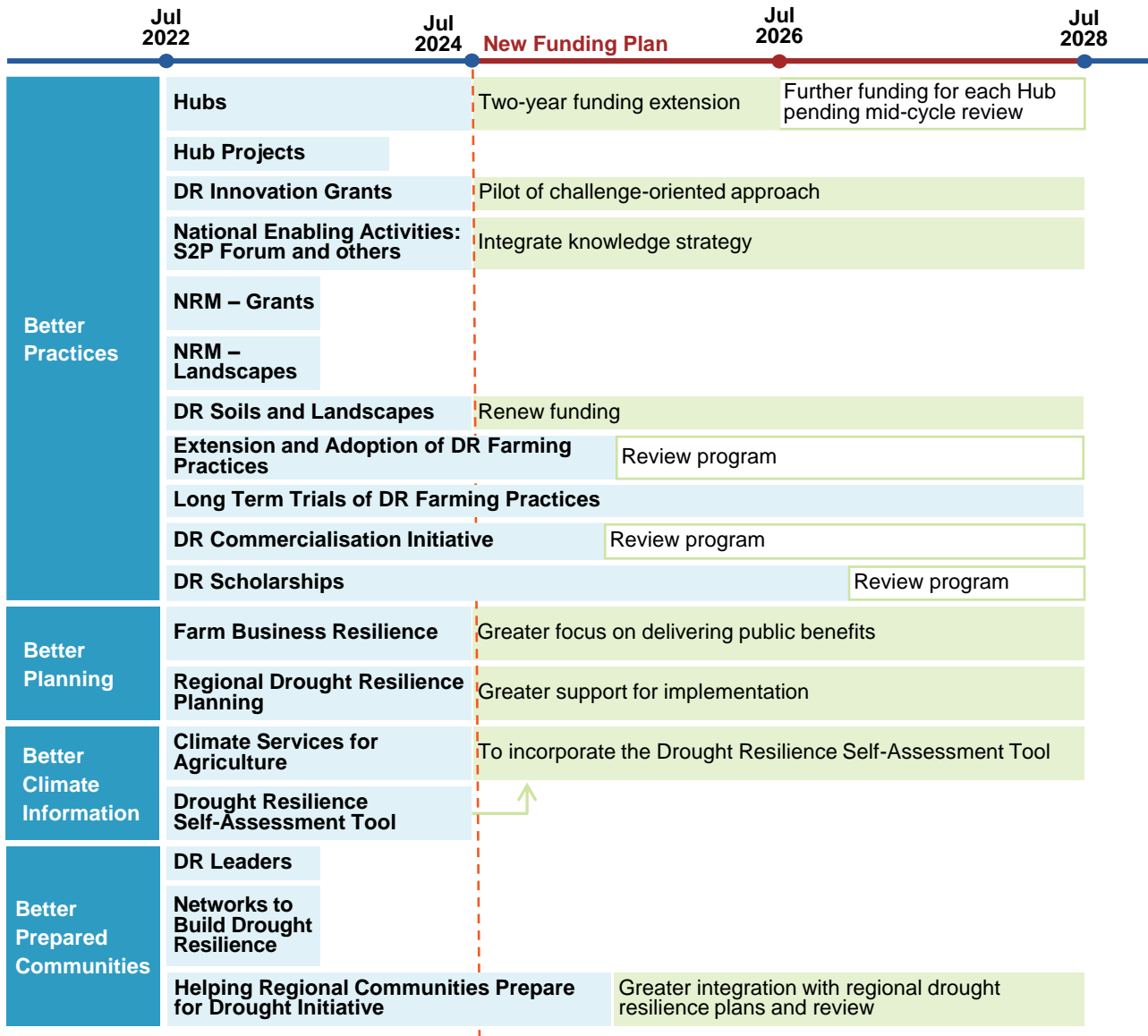
The next four years

The Commission has outlined recommendations that, if implemented, should generate greater public benefits and build farmers’ and agricultural communities’ resilience to drought and climate change.

Figure 5 sketches out the programs the Commission considers should continue into the next funding plan period. The Commission’s recommendations should make the Fund easier to navigate, promote more coordination across programs and facilitate projects that are more likely to build long-term drought resilience through transformational change. Longer-term funding will also allow projects more time to demonstrate their effectiveness and help reduce barriers to participation, including for Aboriginal and Torres Strait Islander people.

The mapping exercise and investment plan, along with a strengthened approach to MEL, will be key inputs to funding allocation decisions going forward, including as programs come up for review and renewal throughout the next funding plan period. Over time, it might be expected that there will be a shift in the types of activities undertaken through the Fund. For example, there may be greater specialisation in a smaller range of activities in areas where the Fund is best able to generate enduring positive change. The result may be even fewer programs. Either way, these changes should be made with an eye to the longer-term aims and direction of the Fund.

Figure 5 – Current FDF program funding commitments with the Commission’s recommendations for the new funding plan period



Recommendations and findings

Future Drought Fund outcomes



Finding 2.1

The first three years of the Future Drought Fund have revealed both the Fund's potential and practical challenges

The Future Drought Fund (FDF) is delivering a solid foundation to build economic, environmental and social resilience to drought.

- FDF programs are supporting a broad range of activities that are likely to enhance drought resilience.
- The FDF is fostering new collaborations across diverse organisations and industries.
- Programs were designed following significant community consultation and most have a strong element of local decision-making and delivery.

However, some problems have hampered the effectiveness of the Fund.

- The rapid development and roll out of initial programs meant there was a missed opportunity to launch the Fund as an integrated, sequenced suite of programs.
- The implementation of several short-term programs with limited collaboration and knowledge sharing undermined prospects of sustainable long-term change.
- The design of some programs has limited the potential for achieving community-wide benefits.

Next steps for the Future Drought Fund



Recommendation 3.1

Opportunities for achieving greater public benefits

The Australian Government should enhance the public benefits being delivered by the Future Drought Fund, including:

- making support for transformational actions a higher priority
- investing more in activities that build natural capital, drawing on support from relevant organisations
- continuing the shift to place-based planning and actions for supporting social resilience.



Recommendation 3.2

Actions that could improve the effectiveness of the Fund

The Department of Agriculture, Fisheries and Forestry should:

- update the aim in the Drought Resilience Funding Plan to:

The aim of the Future Drought Fund is to build drought and climate change resilience in Australia's agricultural sector, the agricultural landscape, and communities. The Fund will invest in activities with long-lasting benefits, that would not otherwise occur and that will lead to the Australian community being better off overall.

- map Australian, state and territory government programs for agriculture, land management, drought resilience and climate change resilience, to ensure funding from the Future Drought Fund (FDF) is well targeted and not duplicating other programs
- refine the FDF's theory of change and develop an investment plan to guide decisions about the mix, funding and delivery of FDF programs
- clarify the purpose and use of the FDF's funding principles.



Recommendation 3.3

Clarify scope to include climate change resilience

While drought resilience should remain the primary goal of the Future Drought Fund (FDF), the Department of Agriculture, Fisheries and Forestry should clarify the scope of the FDF to explicitly recognise building resilience to drought and climate change. To reduce the risk of funding climate change-related activities supported by other government programs, the FDF could include a non-exhaustive list of activities ineligible for FDF funding.



Recommendation 3.4

Developing a knowledge strategy

The Department of Agriculture, Fisheries and Forestry should develop a knowledge strategy that:

- identifies measures to improve the generation, dissemination and uptake of knowledge across the Future Drought Fund, tailored to the preferences of end users
- defines the roles and responsibilities of the many parties across the Fund that create, share and/or use knowledge
- outlines the best model for implementing a knowledge management system.

Governance



Recommendation 4.1

The role of the Regional Investment Corporation Board should be removed

The Australian Government should amend the *Future Drought Fund Act 2019* (Cth) to remove the Regional Investment Corporation Board's legislated role in the Future Drought Fund.



Recommendation 4.2

Better timing of key processes

The Future Drought Fund Consultative Committee and the Productivity Commission advise on the development of Drought Resilience Funding Plans. To ensure this advice is robust and timely:

- the terms of Future Drought Fund Consultative Committee members should be staggered to provide continuity at critical stages in the development and early implementation of new Funding Plans
- the *Future Drought Fund Act 2019* (Cth) should be amended to ensure the Productivity Commission reports no later than eight months before the end of the Funding Plan. The terms of reference should be provided to the Commission twelve months in advance of the reporting date.

Monitoring, evaluation and learning



Recommendation 5.1

Strengthening the monitoring, evaluation and learning system

The monitoring, evaluation and learning (MEL) system should be strengthened. Additional investment in MEL capabilities and implementation is required. The Australian Government should provide funding from the Future Drought Fund to the Department of Agriculture, Fisheries and Forestry (DAFF) to build capability, including of delivery partners, and implement fit-for-purpose MEL activities.

DAFF should work with stakeholders to develop fund-wide performance measures for economic, environmental and social resilience, and ensure collection, reporting and analysis of the data over time. DAFF could improve program MEL activities through:

- developing appropriate program performance indicators – including outcome measures that are linked to the theory of change – to measure progress of programs in supporting drought resilience
- trialling longer-term monitoring and reporting for priority programs to provide a better understanding of the long-term resilience benefits, including beyond the conclusion of an activity or program
- streamlining reporting obligations for delivery partners and grant recipients to improve consistency and comparability, reduce duplication and avoid unnecessary reporting.

Improving outcomes for Aboriginal and Torres Strait Islander people



Recommendation 6.1

An Aboriginal and Torres Strait Islander working group

The Department of Agriculture, Fisheries and Forestry should establish an Aboriginal and Torres Strait Islander working group to partner with the Department to improve the design and implementation of the Future Drought Fund for the benefit of Aboriginal and Torres Strait Islander people.

Future Drought Fund programs



Recommendation 7.1

Improving the Better Climate Information programs

The Australian Government should discontinue funding for the Drought Resilience Self-Assessment Tool and integrate those elements of greatest value to end users into the Climate Services for Agriculture tool. The Department of Agriculture, Fisheries and Forestry should monitor use of the new tool to determine if support should continue.



Recommendation 7.2

Improving the public benefit of the Farm Business Resilience program

The Department of Agriculture, Fisheries and Forestry, in partnership with state and territory governments, should improve the design and delivery of the Farm Business Resilience program by:

- tightening eligibility criteria for participants to ensure services are filling genuine gaps in training for farmers
- requiring course content to prioritise natural resource management and transformational practices. Business management training that offers largely private benefits should not be the focus
- requiring co-contributions from program participants, adjusted according to eligibility criteria and course content
- ensuring monitoring and reporting provides sufficient detail to evaluate the program's effectiveness in building drought resilience
- considering the appropriate level of funding for the program, taking into account the likely public benefits and the alternative uses of funds.



Recommendation 7.3 **Improving the Regional Drought Resilience Planning program**

The Department of Agriculture, Fisheries and Forestry should work with the state and territory governments to provide guidance to program participants on:

- implementation pathways for resilience activities identified through the Regional Drought Resilience Planning process
- a preferred governance framework for regional drought resilience plans
- the sources of funding available from the Australian, state and territory governments, the types of activities that would be eligible for funding from the Future Drought Fund and a timeline for these processes.



Recommendation 7.4 **Improving the Drought Resilience Adoption and Innovation Hubs**

Funding for the Drought Resilience Adoption and Innovation Hubs should be extended for two years in the next funding plan period, with continued funding for each Hub depending on a satisfactory mid-term performance review.

The Department of Agriculture, Fisheries and Forestry should also:

- release a public statement of expectations for the Drought Resilience Adoption and Innovation Hubs program and individual Hubs
- align Hub knowledge brokers' activities with the proposed Future Drought Fund knowledge strategy (recommendation 3.4).



Recommendation 7.5 **Piloting a 'challenge-oriented' approach to the Drought Resilience Innovation Grants program**

The Department of Agriculture, Fisheries and Forestry should pilot a 'challenge-oriented' approach as part of the Drought Resilience Innovation Grants program. The pilot should facilitate tailored, innovative solutions to a small number of complex and multi-dimensional challenges – in a particular region, industry or at a broader systems level – arising from drought and climate change.



Recommendation 7.6
Better targeting of community programs

The Department of Agriculture, Fisheries and Forestry should improve the Better Prepared Communities programs by:

- focusing support on community-wide activities and networks, leaving engagement with agricultural industry networks to other programs
- ensuring detailed reporting on the types of knowledge and practices being shared, to assist evaluation and build a stronger evidence base on what works
- reviewing at the end of the next Funding Plan whether the Helping Regional Communities Prepare for Drought initiative is best placed to target social resilience activities or if there should be greater emphasis on delivering social resilience through the Regional Drought Resilience Planning program.

1. What is this inquiry about?

Key points

- * The Future Drought Fund is intended to support farmers and communities to build drought resilience. It reflects the evolution in national drought policy, away from in-drought support to promoting preparedness and resilience to drought. This shift is timely given the escalating risks from climate change.
- * Under the *Future Drought Fund Act 2019* (Cth), the Productivity Commission is required to conduct a review of Part 3 of the Act before a new Drought Resilience Funding Plan is enacted. The next Funding Plan is due to take effect from February 2024.
- * The Commission assessed the suite of Fund programs against the goals of the Fund, with recommendations to improve the design, delivery and governance of the Fund and its programs.
- * As the Fund has only been operating for three years, there is a lack of evidence of program outcomes. The Commission has therefore relied on various sources of information to inform its assessment, including Fund information and documents, participant feedback, and a review of relevant literature.

The Future Drought Fund (FDF) is an investment fund established by the Australian Government in 2019. The FDF provides \$100 million from its investment returns each year to support farmers and communities to build drought resilience. Additional investment returns are re-invested into the Fund until it reaches a balance of \$5 billion.¹

1.1 What has the Productivity Commission been asked to do?

The *Future Drought Fund Act 2019* (Cth) requires the Productivity Commission to undertake an inquiry into the effectiveness of Part 3 of the Act every four years. Part 3 deals with arrangements and grants (payments) made under the Act that relate to drought resilience.² As part of the assessment, the Australian Government asked the Commission to consider:

- the effectiveness and appropriateness of the *Drought Resilience Funding Plan 2020 to 2024* in guiding progress towards the objective of drought resilience

¹ The balance of the FDF was \$4.5 billion as at 31 December 2022 (DoF 2023).

² References to the Future Drought Fund in this paper are a shorthand way of referring to the arrangements and grants (payments) made under the Act rather the investment vehicle that is the Future Drought Fund.

- the effectiveness, efficiency and appropriateness of the programs, arrangements and grants in delivering against the Funding Plan and the objective of drought resilience
- the effectiveness, efficiency and appropriateness of the systems and processes established to develop, deliver, govern, monitor and evaluate the programs, arrangements and grants
- how the Funding Plan, the development, delivery, monitoring and evaluation of future programs, arrangements and grants, and the processes and systems to administer the Fund could be improved.

Section 32A of the Act requires the Commission to consider the economic, social and environmental outcomes in its assessment.

The Commission was also asked to consider:

- opportunities to enhance proactive collaboration in planning and delivering drought resilience initiatives, including with state and territory governments
- opportunities to enhance engagement with, and benefits for, First Nations people
- the merits of longer planning and program timeframes in building resilience
- the merits of broadening the scope of the Fund to support resilience to climate change for the agriculture sector and communities dependent on agriculture.

In undertaking the inquiry, the Commission was asked to provide specific and practical advice to inform the development of the next four-year Funding Plan; the development, delivery, monitoring and evaluation of future programs, arrangements and grants; and the processes and systems to administer the Fund.

1.2 Conduct of the inquiry

The Commission received the terms of reference for the inquiry on 10 January 2023, and called for submissions on 19 January 2023. An interim report was released on 13 June 2023, which invited participants to provide feedback and additional information.

The Commission has consulted widely. The Commission has met with the FDF Consultative Committee, the Australian, state and territory governments, industry groups, NRM organisations, community organisations, Drought Resilience Adoption and Innovation Hubs, academics, Aboriginal and Torres Strait Islander organisations, local governments, program delivery partners, and other interested participants.

The Commission received a total of 91 submissions and 32 brief comments from interested parties. Individuals, groups and organisations who participated in meetings and made submissions are listed in appendix A. The Commission has greatly benefited from the engagements and thanks all participants for their contributions to the inquiry.

1.3 Context for this inquiry

What is the Future Drought Fund?

The purpose of the Fund is to 'enhance the public good by building drought resilience' (Future Drought Fund Act 2019 (Cth), s. 3). It is the main Australian Government program for building drought resilience.

The Fund reflects an evolution in national drought policy over the last decade away from in-drought support to promoting preparedness and resilience to drought (DAFF, sub. 42, p. 6).

The FDF is unique in that it provides sustained funding for building drought resilience over the long term. The FDF's vision, strategic priorities, intended impacts and long-term outcomes, activities and programs are outlined in the FDF's program logic (figure 1.1).

The FDF is governed by the Act, which establishes the FDF, processes under which arrangements and grants are made, and the governance of the FDF.

The FDF's programs, arrangements and grants are guided by the four-year Funding Plan, which sets the framework for expenditure under the FDF. The Drought Minister must request advice before allocating funding.

- The FDF Consultative Committee advises on a draft Funding Plan. Once the Funding Plan is established, the Consultative Committee advises on whether the design of the programs comply with the Funding Plan.
- The Regional Investment Corporation Board advises on individual grants or arrangements.

As of September 2023, the FDF has funded 19 programs under the first Funding Plan.³ The programs support a diverse range of activities, including research, development, adoption, commercialisation, capacity building and planning (box 1.1). These programs are designed to meet the Fund's three strategic priorities and fall under four themes: better climate information; better planning; better practices; and better prepared communities.

The FDF has a Monitoring, Evaluation and Learning (MEL) Framework, which outlines the rationale, scope and approach of monitoring and evaluating the FDF and its activities (chapter 5).

Box 1.1 – Examples of programs funded by the FDF

Vocal Locals Program

A team at the University of South Australia received funding from the *Networks to Build Drought Resilience* program to run a 'Vocal Locals' social network campaign in Loxton (SA). Over two months, 10 local leaders were recruited and upskilled to drive engagement with workshops, online modules, and casual conversations about mental health and wellbeing (DAFF 2023m; ifarmwell nd).

Long-term Trials of Drought Resilient Farming Practices Grant

Charles Sturt University, as a consortium lead, received funding from the *Long-term Trials of Drought Resilient Farming Practices* grants program to investigate the interdependence and whole-system effects of cropping and livestock components and managing environmental and social impacts in response to seasonal variation across multiple trial sites in New South Wales (DAFF 2023j).

Enhanced local weather forecasting

Stirlings to Coast Farmers (WA) received funding under the *Natural Resource Management Drought Resilience – Grants* program to install weather stations, soil moisture probes and digital rain gauges, and integrate the collected data into a dashboard (DAFF 2023i).

Drought Resilience Leaders Mentoring

The Australian Rural Leadership Foundation delivered the *Drought Resilience Leaders* program where participants were connected with other farmers and professionals with experience in drought and climate

³ Throughout the report, 19 programs will be used to refer to the total programs funded throughout the first Funding Plan.

Box 1.1 – Examples of programs funded by the FDF

resilience and adaptation for one-on-one mentoring sessions. The program is being continued through the *Helping Regional Communities Prepare for Drought Initiative* (DAFF 2023e, 2023i).

Almond tree irrigation research

Deakin University (Vic) received funding from the *Drought Resilience Innovation Grants* program (proof-of-concept grants) to research the water requirements of almond trees in the Riverina. The research project used knowledge of water stress thresholds and scheduled irrigation based on soil moisture levels and weather forecasting to determine the minimum irrigation requirements (DAFF 2023d).

Restoring natural functions in central Australian rangeland catchments

A collaboration facilitated by the Northern Hub received funding from the *Drought Resilient Soils and Landscapes* program to demonstrate and scale landscape rehydration and regenerative grazing management practices in four demonstration sites across the Ti Tree and Lake Lewis catchment areas (NT). The practices aimed to increase vegetation cover and improve soil health to absorb and store water, with the results to be communicated across the Hub’s network (DAFF 2023f).

Figure 1.1 – Future Drought Fund Program Logic

Vision	An innovative and profitable farming sector, a sustainable natural environment and adaptable rural, regional and remote communities – all with increased resilience to the impacts of drought and climate change		
Strategic priorities	Economic resilience for an innovative and profitable agriculture sector	Environmental resilience for sustainable and improved functioning of agricultural landscapes	Social resilience for resourceful and adaptable communities
Impact	Agricultural businesses are self-reliant, productive and profitable	Agricultural landscapes are functional and sustainable, with healthy natural capital	Agricultural communities are resourceful, adaptable and thriving
Long-term outcomes	<p>(EC1) More primary producers adopt transformative strategies and technologies to reduce financial exposure to drought</p> <p>(EC2) More primary producers adopt risk management practices to improve their sustainability and resilience</p>	<p>(EN1) More primary producers preserve natural capital while also improving productivity and profitability</p> <p>(EN2) More primary producers adopt whole-of-system approaches to NRM to improve the natural resource base, for long-term productivity and landscape health</p>	<p>(S1) Stronger connectedness and greater social capital within communities, contributing to wellbeing and security</p> <p>(S2) Communities implement transformative activities that improve their resilience to drought</p>

Activities	Online climate and drought data • Digital tools • Natural Resource Management • Research & adoption • Knowledge & Innovation Hubs • Community networks • Leadership training • Farm business planning • Regional drought plans
Programs	Climate Services for Agriculture • Drought Resilience Self-Assessment Tool • Farm Business Resilience • Regional Drought Resilience Planning • Drought Resilience Adoption and Innovation Hubs • Cross-hub Projects • Adoption Officers • National Enabling Activities • Drought Resilience Innovation Grants • Natural Resource Management Drought Resilience Program – Grants • Natural Resource Management Drought Resilience Program – Landscapes • Drought Resilient Soils and Landscapes • Extension and Adoption of Drought Resilience Farming Practices Grants • Long-term Trials of Drought Resilient Farming Practices Grants • Drought Resilience Commercialisation Initiative • Drought Resilience Scholarships • Drought Resilient Leaders • Networks to Build Drought Resilience • Helping Regional Communities Prepare for Drought Initiative

Source: DAWE (2020c, p. 13).

What is the FDF trying to achieve?

The FDF is intended to build drought resilience. The concept of drought resilience is broad, complex and can mean different things to different people. The Funding Plan defines drought resilience as:

... the ability to adapt, reorganise or transform in response to changing temperature, increasing variability and scarcity of rainfall and changed seasonality of rainfall, for improved economic, environmental and social wellbeing. (Drought Resilience Funding Plan 2020 to 2024, p. 3)

Definitions of resilience vary but they generally emphasise the ability to absorb adverse shocks or to adapt and transform in response to adverse events and risks (Mitchell 2013).⁴

The Funding Plan adopts a 'triple bottom line' approach of improving the economic, environmental and social dimensions of resilience to deliver a holistic approach to building drought resilience (box 1.2). It also recognises that building drought resilience may require farmers and communities to make incremental, transitional and transformational changes (figure 1.2).

⁴ Definitions differ according to the field of study and context (OECD 2020). For example, the Intergovernmental Panel on Climate Change does not include transformation: 'the capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure' (Pörtner et al. 2022, pp. 2920–2921). However, the definitions typically emphasise that resilience is the capacity or ability of an individual, community or system to prepare and plan for, absorb, recover from, and more successfully adapt and transform in response to adverse events. The Commission has adopted this definition as it most closely aligns with the definition used by the Department of Agriculture, Fisheries and Forestry.

Box 1.2 – Economic, environmental and social resilience

The FDF focuses on building the economic, environmental and social resilience of farmers and communities. The themes, long-term outcomes, activities, programs, and therefore investments, under the Fund should contribute to at least one of these three forms of resilience.

Economic resilience

Economic resilience focuses on building the self-reliance and performance (productivity and profitability) of the agricultural sector in times of drought. For example, farmers undertaking strategic business planning and risk management will improve their self-reliance and ability to mitigate their exposure to drought, such as through diversification of farm income.

Environmental resilience

Environmental resilience focuses on improving the natural resource base for long-term productivity, landscape health and sustainability by supporting primary producers' understanding of the state of their natural capital and raising awareness of best practice natural resource management techniques. This creates incentives for primary producers to better preserve their natural capital and improve their management of natural resources through drought.

Social resilience

Social resilience focuses on strengthening the wellbeing and social capital of communities and empowering communities to develop skills and adopt innovative approaches to drought resilience. One example is to encourage communities to proactively plan and prepare for drought by improving the leadership skills of community leaders, and sharing information and knowledge on drought preparation and planning within the community.

Source: DAWE (2020c); Drought Resilience Funding Plan 2020 to 2024.

Figure 1.2 – Types of change for resilience

Type of change	Definition	Types of activities
Incremental change	The ability to preserve or restore a system (including its basic structures and functions) by preventing, preparing for or mitigating the impacts of an event or risk	<ul style="list-style-type: none"> diversifying income with off-farm employment using farm management deposits to make tax deductible deposits during good periods and withdraw them during bad periods changes to crop variety
Transitional change	The ability to maintain the essential functions and structures of a system by modifying or changing some of its characteristics in response to future adverse events or risks	<ul style="list-style-type: none"> changing aspects of a production system (such as seed varieties or agronomic practices) to continue the production of certain commodities in a region
Transformational change	The ability to undertake wholesale change of a system when adverse events or risks make the current system untenable	<ul style="list-style-type: none"> shifting up-stream and down-stream supply chain infrastructure to reflect changed production systems adopting new production systems such as grazing or carbon farming revegetating pasture with native vegetation establishing conservation corridors across farmland

Source: Mitchell (2013); OECD (2020b); Rickards and Howden (2012).

The broader drought policy landscape

The FDF forms just one part of the broader drought policy landscape and the Australian Government's policy response to drought. While drought policy has increasingly shifted to promoting preparedness and resilience to drought, it is not the only focus.

The National Drought Agreement (NDA) is an agreement between the Australian, state and territory governments signed at the end of 2018 to support the coordination, consistency and complementarity of drought preparedness, response and recovery policies and programs across jurisdictions. The NDA was reviewed in 2022 and the next agreement will be signed in 2024 (Parties to the National Drought Agreement 2022). Under section 9b of the NDA, one of the Australian Government's obligations is 'establishing and operating a Future Drought Fund, to enhance drought preparedness and resilience'.

In addition to the NDA, the '*Australian Government Drought Response, Resilience and Preparedness Plan*' was developed in 2019, which identifies the Government's three priorities under drought policy (DoA 2019a).

1. Immediate action for farmers and communities in drought.
2. Support for the wider communities affected by drought.
3. Long-term resilience and preparedness.

The FDF falls under priority 3 and is the main Australian Government initiative to build the long-term resilience and preparedness of farmers and rural communities to drought. Other programs identified under priority 3 include natural resource management (NRM) programs such as the National Landcare Program,

water infrastructure projects and research and development (DoA 2019a). A review of the plan was released in May 2023 and a new plan is expected to be released in 2024 (DAFF 2023o).

There are also a range of other programs that support drought resilience. For example, the Farm Management Deposits scheme allows farmers to make tax deductible deposits during good periods and withdraw them during bad periods (PC 2009, pp. 199–200).

The FDF interacts with and contributes to many other policy areas, including agricultural, climate change, natural resource management, innovation, and rural and regional policies. For example, the Australian, state and territory governments released a joint '*National Statement on Climate Change and Agriculture*' in July 2023, with agricultural ministers committing to working with the agricultural sector to 'drive a climate change response underpinned by climate-smart practices'. In particular, the FDF will contribute to 'improving adaptation and resilience to a changing climate' (Australian Government 2023, p. 7).

The FDF also supports the Australian Government's '*Delivering Ag2030*' goal of reaching \$100 billion in production in the agriculture industry by 2030 through theme 3 of 'encouraging stewardship of our land' (DAWE 2022a, pp. 15–16).

1.4 Building resilience in the face of climate change

A resilient agricultural system can adapt and transform in response to drought and climate change, providing benefits such as:

- improved economic and social stability, including by reducing the potential negative effects of drought, such as mental health issues, unemployment and population loss (Aslin and Russell 2008; Edwards, Matthew and Hunter 2018)
- better environmental outcomes, with more sustainable land and water management and other farming practices potentially leading to improved soil health, increased biodiversity and enhanced ecosystems beyond the farm (chapter 3).

The need to build resilient agricultural systems is growing more significant as the climate changes. Farmers and agricultural communities have always faced challenges with climate extremes, such as droughts, floods, bushfires and heatwaves. Managing these risks is an inescapable part of farming in Australia, and Australian farmers and regional communities have demonstrated an ability to adapt to these challenges.

However, climate change will continue to increase the frequency, intensity and variability of drought and other climate conditions (box 1.3). This is likely to challenge even the most prepared farmers and communities, and could result in even greater economic, environmental and social costs to the community. Over time, transitional and transformational changes will be required to maintain the wellbeing of regional economies and communities.

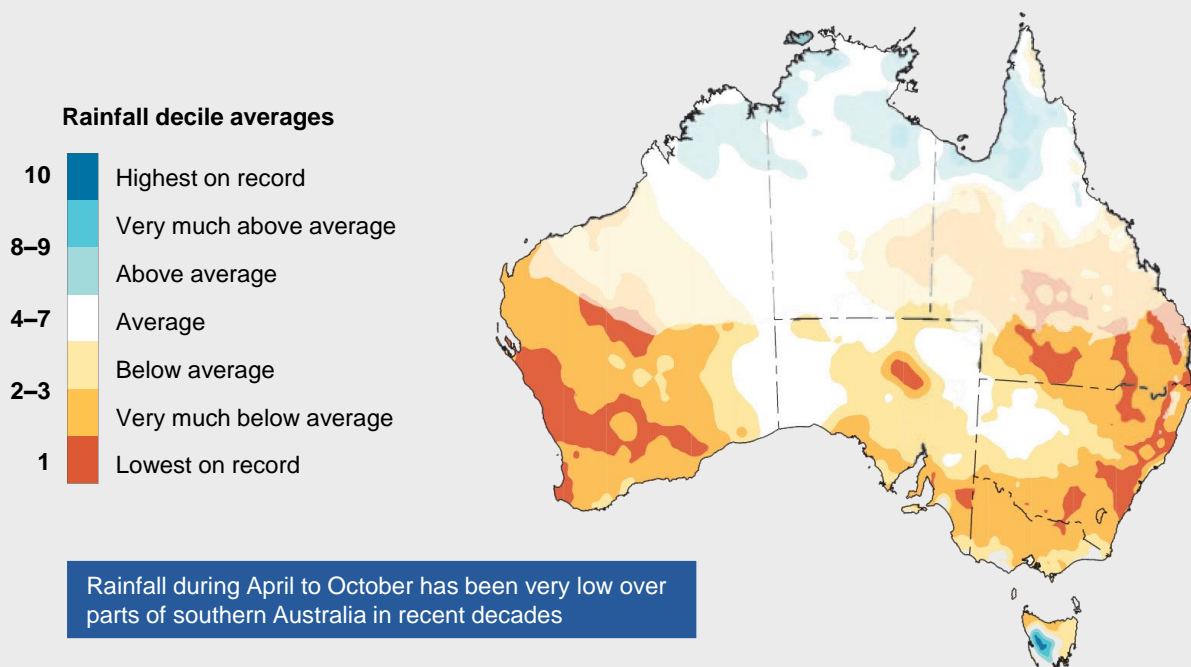
Box 1.3 – Effects of climate change

Climate change has already had significant effects on climate conditions, with Australia experiencing higher temperatures, more extreme heat events and fire seasons, flooding and severe drought. Most changes are projected to continue and worsen over time, but the effects of climate change are highly variable across regions in Australia.

The average temperature in Australia has warmed by 1.2 to 1.7 degrees Celsius since national records began in 1910. The warming in Australia has resulted in an increase in extreme heat events. For example, in 2019 there were 33 days when the national daily average maximum temperature exceeded 39 degrees, which was greater than the number of days experienced in 1960 to 2018 combined. Temperatures are projected to warm further with even greater frequency and severity of extreme heat events, which will contribute to increased risk of extreme bushfire events.

Rainfall in Australia is naturally highly variable. But climate change is changing the long-term trends in rainfall. In southern Australia, conditions have become drier. For example, April to October rainfall in southwest Australia has decreased by about 15% from 1970 to 2021. In contrast, rainfall has increased across most of northern Australia. The intensity of heavy rainfall events has also increased by over 10% in some regions. Many regions in southern and eastern Australia are projected to experience further declines in rainfall. Intense heavy rainfall events are projected to become more frequent, and in some regions, account for a greater proportion of total rainfall.

April to October rainfall decile averages between 2000 and 2021



Source: Bureau of Meteorology

The frequency of tropical cyclones has decreased since 1900 and is projected to continue to decline but is more likely to be of high intensity, which is associated with weather events such as extreme rainfall and flooding.

Box 1.3 – Effects of climate change

Climate change is also projected to have a wide variety of other effects such as on pests and diseases, biosecurity, as well as the risk of multiple extreme events occurring simultaneously or successively.

Climate change has already significantly affected the agricultural sector. For example, Hochman et al. (2017) estimated climate change has reduced the water-limited yield potential of wheat in Australia by 27% from 1990 to 2015,^a and Hughes et. al (2022) estimated that average Australian farm profits decreased by 23% as a result of climate change over the last 20 years.

a. Water-limited yield potential is the ‘maximum yield predicted by a model with water as the only limiting factor’ (CSIRO, sub. 80, p. 12).

Source: CSIRO and BOM (2022); PC (2023); Pörtner et al. (2022).

Australia’s recent experience of drought and other climate events highlights the significant risks of climate change to the economy, environment and communities. The 2017 to 2019 drought was one of the worst drought events experienced by many states and territories, and was followed by the extreme 2019 to 2020 bushfires, and more recently, severe flooding in many regions. Indeed, the net present value of the national welfare loss caused by the 2017 to 2019 drought and the 2019 to 2020 bushfires was estimated to be \$53 billion and \$10 billion, respectively, the latter of which excludes the loss of human lives, flora and fauna (Wittwer and Waschik 2021, p. 932).

El Niño and drought are likely to occur

In June 2023, the World Meteorological Organisation (2023) forecasted a 90% probability of an El Niño event forming in the second half of 2023. The Bureau of Meteorology’s (BOM) (2023a) outlook also shifted to ‘El Niño ALERT’ in June 2023, indicating a 70% chance of El Niño forming this year (up from 50%).

El Niño refers to the ‘extensive warming of the central and eastern tropical Pacific Ocean, which leads to a major shift in weather patterns across the Pacific’. El Niño normally occurs every three to eight years and previously occurred in 2015 to 2016 (BOM nd).

In Australia, El Niño typically involves drier and hotter conditions and can have significant effects on agriculture. In August 2023, BOM (2023b) forecasted that most of Australia is likely or very likely to receive below median rainfall and above median minimum and maximum temperatures for September to December. This highlights the ongoing need for farmers and communities to prepare for drought.

1.5 The Commission’s approach

The Commission’s framework

In undertaking this inquiry, the Commission has adopted a framework to assess the appropriateness, effectiveness and efficiency of the FDF (figure 1.3).

In simple terms, policies and programs should be:

- appropriate – based on sound rationale
- effective – achieves the government’s intended objectives without unintended consequences
- efficient – achieves the greatest positive net benefit (PC 2009, p. 7).

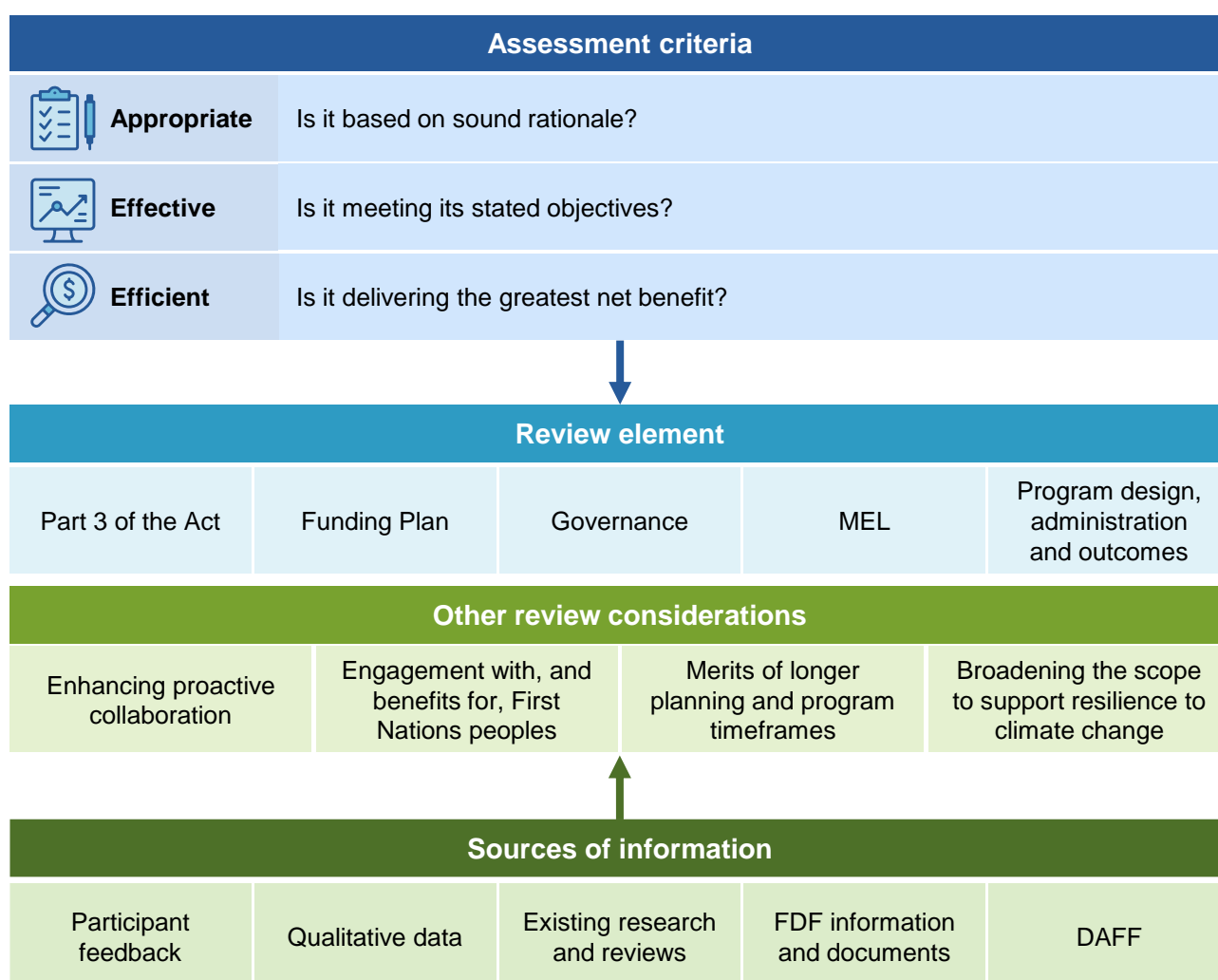
When reviewing the appropriateness of the FDF programs, the Commission considered whether the programs deliver public benefits that otherwise would not have occurred. Programs using taxpayer funding should maximise the benefits to the community, not the benefits for private individuals or organisations (chapter 2).

The review further considered appropriateness as defined in the MEL Framework, which requires that programs are aligned with the objectives of the Funding Plan and are appropriate given the context (DAWE 2020c), as well as whether the program is appropriate given other drought-related programs.

Given the FDF is relatively new, the Commission was unable to quantitatively assess the effectiveness and efficiency of the FDF and its programs. Formal evaluations of the foundational Fund programs (in fact, any programs) are yet to be completed. Further, this inquiry has occurred at a time where the absence of drought in most regions meant that program outcomes have not been tested.

The Commission has relied on various sources of information to inform its assessment, including FDF information and documents, qualitative data, participants' feedback and reviews of relevant literature. During the review, the Department of Agriculture, Fisheries and Forestry (DAFF) provided the Commission with many documents and other information.

Figure 1.3 – The Commission's framework



As required under the terms of reference, the Commission has sought to provide specific and practical advice on the development of a new Funding Plan; the development, delivery, monitoring and evaluation of future programs, arrangements and grants; and the processes and systems to administer the Fund.

The Commission has applied the assessment criteria to the review elements required under the terms of reference of the inquiry, including Part 3 of the Act, the Funding Plan, governance of the FDF, the MEL Framework, and the program design, administration and outcomes (section 1.1).

The Commission and its review have greatly benefited from the documents provided by DAFF. The Commission thanks DAFF for their assistance throughout the inquiry.

Structure of the report

The rest of the report contains the Commission's assessment of the Fund.

Chapter 2 assesses the appropriateness of the Fund and its programs, and identifies strengths and weaknesses in the design and delivery of the Fund and its programs. Chapter 3 considers how to incorporate the lessons from the first Funding Plan to improve the Fund moving forward.

The Commission has also considered the appropriateness of the Fund's governance (chapter 4) and MEL approach (chapter 5), and how engagement with, and benefits for, Aboriginal and Torres Strait Islander people can be improved (chapter 6). Chapter 7 provides an assessment of each FDF program.

2. How has the Future Drought Fund performed?

Key points

- ✳ **The extent to which the Future Drought Fund has enhanced drought resilience is not yet known. Most programs address barriers to building drought resilience and are likely to provide benefits for the broader community.**
- ✳ **The Fund has solid foundations that can be built on.**
 - The development of the *Drought Resilience Funding Plan 2020 to 2024* was informed by significant consultations, allowing stakeholders' diverse views, priorities and experiences with drought to be considered.
 - Programs have mostly been tailored to local needs.
 - The Fund is supporting new forms of collaboration between farmers, communities, governments, academics, industry groups, environmental groups and other stakeholders.
 - Some programs have provided a foundation to support transformational change.
- ✳ **However, there have been challenges with the design and delivery of programs.**
 - The Funding Plan lacks a strategy to inform program design, selection, integration and sequencing.
 - There was a rush to deliver programs, leading to short-term programs with typically short-term effects that focused on incremental change.
 - Funding is spread thinly across many programs.
 - Knowledge sharing is critical to enhancing resilience, but the Fund is yet to develop effective ways to manage the generation, dissemination and uptake of knowledge.
- ✳ **While there have been issues with the roll out of the Fund, improvements are being made, including through providing longer-term funding and better integration of programs across the Fund.**

The extent to which the Future Drought Fund (FDF) is succeeding in its objective of building drought resilience is not yet known. That said, the first years of the FDF have produced important lessons for the design and delivery of the Fund and its programs. These lessons should guide the evolution of the Fund over the next funding plan period (2024–28) (chapter 3).

This chapter provides a high-level assessment of the appropriateness (section 2.1), and identifies strengths and weaknesses in the design and delivery (section 2.2), of the Fund and its programs.

The Commission's assessment of individual programs is discussed in chapter 7.

2.1 Assessing the appropriateness of the Fund and its programs

To assess the appropriateness of the Fund and its programs, the Commission considered three key tests. The first test applies to the Fund as a whole and the programs while the subsequent tests apply to individual programs.

1. **Fund and programs:** Is there a sound rationale for Australian Government support?
2. **Programs:** Does each program align with the objectives of the FDF?
3. **Programs:** Is each program appropriate given other drought-related policies and programs?

Rationale for government support

The first test for the appropriateness of both the Fund and its programs is assessing whether there is a sound rationale for government support.

The role of government in building drought resilience

The primary responsibility for managing drought and other climate risks on the farm and within communities lies with farmers and communities. That said, there are circumstances when governments have a role in supporting farmers and communities to build drought resilience.

There can be barriers that prevent farmers and communities from taking necessary actions (box 2.1). For instance, farmers may lack the necessary resources or information to manage drought risks. In a similar vein, governments may promote innovation and adoption of better practices to overcome information gaps.

Another barrier is when private investment is likely to generate significant public benefits (for example, a healthier environment for the community) but that investment may not happen because of the costs or risks for the private investor. A government contribution to reduce costs or risks may be needed to realise the public benefits. In such cases, the level of support should take into account the expected returns to the community.

Even in addressing these barriers, however, a key justification for government policy is that overall, the policy leads to the Australian community being better off – there is a net public benefit. The FDF is no different. Built into the *Drought Resilience Funding Plan 2020 to 2024* (p. 3), including in the second funding principle, is the notion that:

... funding must be able to be accessed and/or shared by many (public benefits), rather than be captured solely by individual businesses or industries solely for private commercial gain (private benefits). It also means the benefits achievable from the funding should outweigh the costs.

Government resilience activities can have community benefits, but they can also have costs – which can often fall to other sectors of the economy – and many activities offer benefits to a narrow group of individuals rather than to the broader public. Governments should therefore only fund activities that address barriers and where the benefits to the community are likely to exceed those costs (produce a ‘net public benefit’).

Box 2.1 – Examples of market failures

Market failures can mean farmers and communities have limited incentives or information to adequately invest in drought resilience.

Public goods

There will typically be underinvestment by private parties in public goods such as research relevant to drought resilience compared to the level of investment needed to maximise community wellbeing. This is because it is often hard for private parties to stop others from copying knowledge and the knowledge generated can be used by one party without affecting the use by any other parties. For example, trials around better farming practices could yield benefits but are not worth the risk of investment, given that they only enjoy the private benefits associated with the investment and not the public benefits.

Environmental and other externalities

Changes in farm practices by a farmer or group of farmers can have negative (or positive) effects on other farmers and the environment. For example, some practices can result in nutrient enrichment of lakes and rivers with resulting algal blooms, decline in ecosystems and loss of habitat (Davis and Koop 2006; Mosley et al. 2023). Other practices can have positive effects such as enhancing biodiversity and carbon sequestration (Power 2010). Governments can support farmers to adopt land or natural resource management practices that provide broader environmental benefits to the community as farmers may have limited incentives otherwise.

Information failures

There can be barriers preventing farmers and communities from accessing the information needed to manage risks and build resilience. Examples of relevant information include access to accurate and timely weather and climate data, knowledge of best practices, and the time or capacity to understand the nature of future risks and the potential implications for investment decisions.

Coordination failures

Building drought resilience may require coordinated action at various levels, from individual farmers to regional and national governments. In the absence of effective coordination mechanisms, farmers and communities may not adequately invest in or implement measures to build resilience.

Further, there is little role for government where support provides largely private benefits. It would be poor value to the community and to taxpayers, especially given the risk taxpayer funds are invested in activities that might have been undertaken anyway. One of the Fund's objectives is to 'grow the self-reliance and performance (productivity and profitability) of the agricultural sector' (Drought Resilience Funding Plan 2020 to 2024, p. 5). Lifting the profitability of farm businesses to improve their resilience to drought is consistent with the Fund's aim but the benefits of this publicly funded support are likely to be primarily private.

Support for programs providing largely private benefits (for example, promoting the take-up of new technologies may result in more high performing agricultural businesses and a more productive economy) may be justified if it does not impose excessive costs on other parties. But the hurdle for justifying this type of support is high.

An argument sometimes made for supporting drought resilience is the assumption that support will reduce the need for in-drought assistance in the future. While better preparedness and drought resilience should

reduce the need for in-drought support, any future savings cannot be guaranteed. The expectation of future savings is a weaker justification for public support, compared to instances when support addresses barriers to investment and generates spillover benefits to the community that otherwise would not have occurred.

Given there is a clear role for governments to support building drought resilience where it addresses barriers and makes the community better off overall, there is a sound rationale for the Fund.

What activities should governments support?

The resilience literature identifies a range of activities that governments can support, including:

- addressing information gaps – improving the quality and availability of information and research can have strong public good justifications, help overcome information failures and assist in long-term decision making
- supporting extension and adoption of drought resilient management practices and tools – the ability for farmers and communities to undertake change requires practices and technologies that can be used in their region. Extension and adoption are needed to maximise the value from research and development efforts and support the uptake of drought resilience management practices and tools
- building natural capital – better natural resource management can improve the sustainability and productivity of agricultural land
- building the human and social capital of farmers and communities – human capital promotes resilience through improved decision making, planning, strategic thinking and capacity to undertake change, while social capital promotes resilience through strengthening networks, knowledge sharing and improving overall wellbeing
- facilitating collaborative planning – governments have a key role in facilitating collaborative planning processes and assisting industries and communities to overcome coordination failures (Ignaciuk 2015; OECD 2020; OECD and FAO 2021).

Another consideration is the degree of change needed to build resilience. While there is a role for governments to support incremental, transitional and transformational changes, the case for government support is likely to be greater where transformational change is needed.

Regions facing severe climate conditions are more likely to need transformational changes to overcome future climate risks (CSIRO 2008; Fedele et al. 2019; Kates, Travis and Wilbanks 2012; OECD 2020; Roggema, Vermeend and Dobbelsteen 2012). However, even if communities or farmers wish to undertake these changes, the barriers to doing so without government support may be too large. Transformational change involves greater risks, costs and uncertainties and can be impeded by governance and institutional barriers, as well as other behavioural and cultural barriers. Transformational change may also require significant coordination and planning across stakeholders (Fedele et al. 2019; Kates, Travis and Wilbanks 2012; OECD 2020; PC 2012).

Given this, there is a stronger rationale for governments to support activities that underpin transformational change. Governments have a role in addressing these barriers, especially the coordination and information failures associated with the uncertainty of transformational change. By comparison, incremental change has fewer barriers, is more likely to occur without government support and produce more modest – public and private – benefits.

Assessing the rationale for FDF programs

The discussion above has identified the role for governments in building resilience, namely addressing market failures and supporting activities that are likely to yield net public benefits. These two considerations constitute the first test posed by the Commission – is there a sound rationale for Australian Government support?

The Commission has considered the extent to which each FDF program is intended to address a market failure and is likely to produce net public benefits. On the evidence available, most programs appear to largely fund activities that could address market failures and provide benefits to the broader community (table 2.1).

However, there are cases where the rationale for government support is marginal. In these cases, program design and integration could be improved and funding could be better targeted to improve overall benefits to the community (chapters 3 and 7). A more detailed assessment of each program is in chapter 7.

Table 2.1 – Rationale for FDF programs

Program	Rationale
Climate Services for Agriculture and Drought Resilience Self-Assessment Tool	Accessible climate information has public good characteristics and reduces information barriers by allowing users to better understand the potential impacts of climate change.
Farm Business Resilience	Providing education and advice to farmers on how to plan and prepare for future climate change risks can reduce information barriers. Some elements of the FBR program (such as modules related to natural resource management) have greater potential benefits to the community than others (such as succession planning). However, this program risks crowding out existing providers and the benefits are largely private.
Regional Drought Resilience Planning	Regional planning can help overcome coordination failures between different industries, sectors and governments. It can support a place-based approach to building drought resilience by supporting regions to identify their own challenges, needs and capacity for change.
Drought Resilience Adoption and Innovation Hubs and associated programs	Hubs can help overcome information barriers and broader coordination failures. They also support knowledge sharing and extension and adoption.
National Enabling Activities	This program invests in activities that can address information barriers by supporting knowledge transfer (such as the Science to Practice Forum and Knowledge Management scoping study) and address coordination failures (such as the Drought Resilience Research and Adoption Investment Plan).
Innovation Grants	Innovative activities can generate new knowledge, processes or activities that, if shared, can provide spillover benefits.
NRM Drought Resilience Programs and Drought Resilient Soils and Landscapes grants^a	Sustainable management of natural resources can provide environmental spillover benefits beyond the farm gate.
Drought Resilience Leaders, Networks to Build Drought Resilience, and Helping Regional Communities Prepare for Drought Initiative	Building networks and leadership can promote knowledge sharing and diffusion of best practices, which can provide spillover benefits and improve community wellbeing.
Drought Resilience Commercialisation Initiative	Commercialisation planning services appear to provide primarily private benefits to innovators. There is also a weaker rationale for government support at the commercialisation stage, which provides opportunities for large potential private returns.
Long-term Trials of Drought Resilient Farming Practices and Extension	Research on the effectiveness of drought resilient farming practices provide spillover benefits to other farmers and possibly to the broader community such as improved environmental outcomes.

Program	Rationale
and Adoption of Drought Resilience Farming Practices Grants	There is also a rationale to support extension and adoption in an integrated way with research to maximise the value of publicly funded research and the uptake of farming practices that provide spillover benefits.
Drought Resilience Scholarships	This program provides significant private benefit, but the educational and research outcomes as well as diffusion of international best practices could provide spillover benefits to the community.

a. NRM and Soils and Landscapes grants include the following programs: Drought Resilient Soils and Landscapes, NRM Drought Resilience Program – Landscapes and NRM Drought Resilience Program – Grants.

Programs align with the Fund’s objectives

The second test of appropriateness is whether the programs align with the objectives of the Fund. The Fund’s objectives are:

- grow the self-reliance and performance (productivity and profitability) of the agricultural sector
- improve the natural capital of agricultural landscapes for better environmental outcomes
- strengthen the wellbeing and social capital of rural, regional and remote communities.

The Commission has assessed the alignment of the programs with the objectives by reviewing each program’s monitoring, evaluation and learning (MEL) plans and the grants funded by the program.

The Commission’s assessment is that all programs align with at least one objective and most programs align with all or two of the three objectives. That programs align with two or more objectives reflects the design of programs to meet broad objectives and that the objectives themselves are mutually reinforcing, where achieving one objective contributes to the achievement of another.

In addition, the FDF Consultative Committee has assessed all the current programs, and the Regional Investment Corporation (RIC) Board has assessed all FDF arrangements and grants (made under current FDF programs) as not being inconsistent with the 2020–24 Funding Plan.

However, there is still scope for improving program design and funding arrangements (chapter 7). Being consistent with a broad objective or objectives is a start, but each program should also have a strong rationale and plausible net public benefits. Furthermore, each program’s theory of change should clearly explain how the program’s activities will contribute to overall objectives.

Some FDF programs overlap or compete with other programs

The third test posed is how each FDF program aligns with other drought-related policies and programs. As discussed in chapter 1, the FDF interacts with many other policy areas, including agricultural, climate change, innovation, natural resource management and rural and regional policies.

Avoiding duplication is recognised in funding principle 4 of the Funding Plan (p. 4), which requires that arrangements and grants will:

... not duplicate or replace existing Commonwealth, state, territory or local government funding programs, and will aim to improve the coordination or integration of existing Commonwealth Government policies, frameworks and programs where they meet the Fund’s purpose.

However, there are many instances where FDF programs overlap with other programs. The Commission has heard, for example, that in some regions Regional Drought Resilience Plans are well aligned with other regional plans, but in other regions they add a layer of complexity to existing plans and arrangements.

Some states and territories have climate information tools that perform similar functions as *Climate Services for Agriculture (CSA)* and the *Drought Resilience Self-Assessment Tool (DR.SAT)*. For example, the Queensland Department of Agriculture and Fisheries (sub. 54, p. 3) noted how CSA and DR.SAT replicate information provided by Queensland's own climate information website and services.

Duplicating existing programs risks crowding out existing programs and providers. For example, Livestock SA (sub. 26, p. 2) raised concerns over the *Farm Business Resilience* program in South Australia.

We have unfortunately seen significant duplication of some FDF initiatives with existing programs already being delivered by State Government, regional agencies and private individuals. For example, the FDF's Farm Business Resilience program came in over the top of *Kangaroo Island's Farm Business Management Program*, PIRSA's *Red Meat and Wool Livestock Enterprise Planning* and the SA Arid Lands *Building Pastoral Sustainability Project*. All had differing incentives (or costs) of involvement. This resulted in all providers failing to secure sufficient delegates to make each of their programs viable, wasted resources and confused producers.

It is also unclear which gaps in research and development funding the FDF is filling through the *Drought Resilience Innovation Grants* program, given the myriad of government programs supporting research and development in general, and agricultural research and development in particular. The agricultural innovation space is crowded, with Rural and Research Development Corporations (RDCs), Cooperative Research Centres, universities, the Australian Government (such as through the National Agricultural Innovation Agenda), and state and territory governments among others. The National Farmers' Federation (sub. 64, p. 17) noted the need for a 'more concerted effort to avoid duplication with other FDF programs and existing innovation, research and development initiatives'.

Some participants raised concerns the Fund duplicates existing NRM activities, in particular the National Landcare Program (for example, Ag Excellence Alliance, sub. 19, p. 1; NRMQR, sub. 23, p. 7; Rangelands NRM Coordinating Group, sub. 50, p. 2). Similarly, there are many other Australian, state, territory and local government policies and programs relating to social resilience and community wellbeing (for example, Dr Chad Renando, sub. 77, p. 14).

The Commission has recommended a mapping exercise to identify overlaps, ensure the Fund is well targeted, and identify opportunities for partnership, collaboration and leveraging of other programs (chapter 3).

The Fund and its programs are broadly appropriate

Drought and climate change are expected to put Australia's agricultural industries and their communities under mounting economic, environmental and social pressure. Funding from the FDF could be a catalyst for locally led transformational change to meet these pressures.

The Fund reflects an evolution in drought policy to promoting preparedness and resilience to drought, which is appropriate given the primary responsibility for managing the on-farm and community impacts of droughts lies with farmers and communities. There can be significant benefits from supporting farmers and communities in building drought resilience, particularly in the context of climate change (chapter 1).

The Fund and its programs broadly satisfy the Commission's first and second tests of appropriateness. First, there is an overall economic rationale for the Fund to support drought resilience where it makes the community better off. Most programs are likely to address barriers to building resilience to drought and deliver benefits to the broader community. Second, each program aligns with – and is likely to contribute to – at least one of the Fund's objectives.

However, on the third test, the Commission found there are instances of duplication and overlap with programs beyond the Fund.

Overall, the Commission considers the Fund and its programs to be broadly appropriate but highlights the need to better target the Fund and its programs to leverage – and avoid duplication with – existing programs (chapter 3).

2.2 Assessing the design and delivery of the Fund and its programs

The extent that programs – individually and collectively – are improving drought resilience is not fully known. Some foundational programs are yet to complete final reporting and evaluation, while other programs are in the design and early implementation phases. In addition, MEL has not yet been sufficiently embedded to comprehensively track progress (chapter 5). Regardless, many participants highlighted positive outcomes are being generated by projects and activities funded by the FDF (for example, FRRR, sub. 70; Hayley Webster, sub. 61, p. 1; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 4; Southern NSW Innovation Hub, sub. 56, att. 1; Upper Mooki Landcare, sub. 73, pp. 2–3).

The Commission has therefore focused on assessing how the Fund and its programs have been designed and delivered. The first three years of the Fund’s operation has highlighted some key positives and areas for improvement.

The Fund, and its implementation, has a number of strengths. Strong consultation processes underpinned the development of the first Funding Plan. Collaboration has been facilitated through the Fund’s activities across a range of organisations and industries that would not have occurred otherwise, some programs have established a foundation to support transformational change, and the design and delivery of programs has largely been flexible and tailored to local needs.

However, there are also some key issues in how programs were designed and implemented that may have limited the impact of the Fund and its programs. The lack of strategy to guide program integration and sequencing, combined with a proliferation of short-term programs implemented quickly with limited collaboration and knowledge sharing, have hampered the prospects of sustainable long-term change and improved resilience. That said, the Department of Agriculture, Fisheries and Forestry (DAFF) has already made some improvements to address these problems.

These lessons should guide the development of the next Funding Plan, and the design and delivery of the Fund moving forward. These lessons have also informed the Commission’s recommendations on the next steps for the Fund (chapter 3).

The Fund is establishing solid foundations ...

The implementation of the Fund in its first three years of operation has been challenging, but there are many aspects that have been positive and have established many of the building blocks for drought resilience.

The 2020 to 2024 Funding Plan was informed by significant consultation

Effective consultation is important to ensure policies and programs are well designed and address the diverse views, needs and priorities of stakeholders. This is particularly important for complex issues such as drought resilience, where different stakeholders have varying perspectives and experiences with drought.

The Department and FDF Consultative Committee undertook significant consultation to inform the 2020 to 2024 Funding Plan. Over 690 people and organisations participated via 73 in person roundtables and public

meetings, and 243 survey responses or written submissions (DAFF 2023a). However, one key shortcoming is there was limited engagement with Aboriginal and Torres Strait Islander people (chapter 6).

The top priorities raised through online surveys and submissions were farm business planning, community initiatives, research adoption and extensions, and farming youth and leadership training (DAFF 2023a). Submissions largely supported the funding principles, the triple-bottom line approach and the focus on building long-term drought resilience.

Suggestions to clarify or change parts of the Funding Plan differed across submissions. Several submissions noted that the FDF should: collaborate with organisations that already undertake drought resilience work (such as natural resource management (NRM) groups, Landcare groups, and catchment authorities); be administered in a simple and accessible way for farmers; and facilitate better data collection and information-sharing. Several submissions also discussed water management and infrastructure (DAFF 2023h).

Several changes were made to the draft Funding Plan in response to feedback, including across the funding principles, vision, aim and objectives, and the strategic priorities. In particular, the vision was broadened to include resilience to the impacts of climate change (DoA 2019b; Drought Resilience Funding Plan 2020 to 2024).

Programs have mostly been tailored to local needs

The design and delivery of many of the Fund's programs have been flexible enough to be tailored to local needs and circumstances. This approach likely enhances the effectiveness of the programs because the impact of drought and other climate-related events are felt locally, and different regions have diverse agricultural and climatic landscapes as well as diverse perspectives and experiences of drought (DAFF, sub. 42, p. 9; FDF Consultative Committee, sub. 69, p. 4; WA DPIRD, sub. 46, p. 2). As a result, 'drought resilience means something different to each person, farm, community, and agricultural landscape' (FDF Consultative Committee, sub. 3, p. 2).

Grosvenor (2023, p. 26) found:

The foundational programs have generally adopted a user and/or place-based focus which has been tailored to the program scope and delivery approach to meet the specific needs of local areas, regions or beneficiaries.

For example, the *Regional Drought Resilience Planning* (RDRP) program supports and coordinates collaborative planning between community service organisations, local governments, and farming and other stakeholders within a region to identify regional needs, priorities and actions to build drought resilience (chapter 7). The *Farm Business Resilience* (FBR) program has also been tailored to meet the needs of different jurisdictions as well as the needs of the program's participants (for example, DAFF, sub. 42, p. 9; Tasmanian Government, sub. 52, p. 3; TNQ Hub, sub. 88, p. 8).

The Fund supports new forms of collaboration

Collaboration between DAFF, delivery partners and other stakeholders is essential to improve the effectiveness of the FDF and its programs. As DAFF (sub. 42, p. 9) acknowledged, 'collaboration in program design and delivery through strategic partnerships would ... result in greater efficiencies and improved impact for participants'.

Funding principle 11 of the Funding Plan (p. 4) requires that arrangements and grants will:

where appropriate, use or collaborate with existing community networks, Indigenous organisations and communities, natural resource management organisations, industry and farmer groups.

Across the Fund, farmers, communities, NRM organisations, academics, governments, industry groups and other participants have been brought together, which has facilitated collaboration that otherwise would not have occurred.

This collaboration is evident through many Fund projects.

A successful example in Queensland is the Drought Resilient Soils and Landscapes project being led by Healthy Land and Water which has brought together graziers and farmers, local Landcare groups and industry partners to promote and accelerate increased adoption of sustainable land management practices across the region. (NRMRQ, sub. 23, p. 4)

This project was titled 'Enhancing Community Networks on the Riverine Plains' ... The workshops brought together rural financial counselling services and specialists, Traditional Owners, women, youth, livestock nutritionists, bankers, agronomists, accountants and farmers. This was a very successful project as it helped us understand community needs and has fed into subsequent project applications ensuring we are not only pioneering new initiatives, by building on known needs in our community. (Riverine Plains, sub. 29, p. 12)

Notwithstanding issues in establishing the *Drought Resilience Adoption and Innovation Hubs* (chapter 7), many Hubs highlighted how they have facilitated collaboration and network building between partners (for example, Southern NSW Innovation Hub, sub. 56; TNQ Hub, sub. 33; University of Adelaide, sub. 32; University of Melbourne, sub. 48). The University of Adelaide (sub. 32, p. 1) – leader of the South Australian Drought Resilience Adoption and Innovation Hub – commented:

The SA Hub's impact lies in its ability to foster collaboration and relationships – and, as a result, achieve outcomes – that would not have occurred in the Hub's absence. The Hub has enabled partnerships across the agricultural sector at a breadth and scale not previously seen in SA. By building a large, interconnected network and guiding it in a common direction, the SA Hub has helped forge links throughout multiple regions across farming systems groups, landscape boards, agribusinesses, research groups, industry bodies and producers.

Other participants also expressed support for the collaboration with Hubs. For example, the Farming Systems Group Alliance (sub. 15, p. 3) said 'collaboration has increased between the agencies, institutions and organisations involved within the hub'.

The Regional Drought Resilience Plans also provide an avenue for collaboration in producing community-led regional plans. Some pilot plans demonstrated considerable success in stakeholder consultations, bringing together a wide range of views from local governments, Aboriginal and Torres Strait Islander groups and organisations, community service organisations, farming groups and agriculture representative bodies (chapter 7).

Despite these successes, the Commission has heard that collaboration and consultation between DAFF, delivery partners and other stakeholders could be improved (for example, AgForce Queensland, sub. 45, pp. 4–5; Lu Hogan and Professor Lewis Kahn, sub. 5, p. 2; Rangelands NRM Coordinating Group, sub. 50; RECoE, sub. 38, p. 4).

In some circumstances, insufficient collaboration has meant programs were not as effective or integrated with other programs as they could have been. For example, the National Landcare Network (sub. 18, p. 4) raised concerns about how the 'ad hoc' engagement and collaboration with Hubs 'limits the potential for large-scale, widespread and timely adoption'. There were also problems with the co-design process for the CSA and DR.SAT programs that have likely contributed to the tools not meeting the needs of end users, resulting in low uptake of the tools (chapter 7).

There appeared to have been little consultation between the Australian Government and state and territory governments before the FBR and RDRP programs were announced, despite state and territory governments being delivery partners and expected to make a co-contribution (Queensland DAF, sub. 54, p. 7). However, this improved after the programs were announced, and the FBR program was tailored to meet the different needs of jurisdictions (discussed above).

Finally, while the RDRP program provided an avenue for collaboration, there was limited collaboration across regions. The Western Australian Department of Primary Industries and Regional Development (sub. 46, p. 6) argued ‘the sharing of information and approaches between those working on Regional Drought Plans could have accelerated the states and territories planning and delivery in the pilot year’.

Nevertheless, overall the Fund has established an important platform for building networks and facilitating collaboration, which provides new avenues to generate and share information and drive changes in a holistic way.

Participants reported benefits from the Fund

As outlined, the extent to which the Funds’ programs will deliver a lasting impact on drought resilience is not yet known. However, participants largely supported the Funds’ activities and cited many examples of activities that they expect will deliver long-term benefits (box 2.2).

Some programs have also established enablers and other important foundations to build drought resilience and support transformational change. For example, the RDRP program promotes collaborative planning – which can support transformational change within a region – while Hubs have the potential to support networks, collaboration, and extension and adoption of knowledge that would support transformational change. These examples further highlight the regional focus of the Fund and reflects the need to build drought resilience at the local level.

Improvements are being made

There were various early challenges in how the Fund and its programs were designed and delivered, which have been acknowledged by DAFF (sub. 42) and the FDF Consultative Committee (sub. 3). Despite the challenging roll out, the Commission heard positive feedback from many participants about their engagements with the Department, including that the Department was supportive, flexible and responsive. It is also evident that some lessons from the foundational phase are being incorporated in the design and implementation of recent programs, which is discussed in greater detail in chapter 5 and 7.

Box 2.2 – Select examples of reported benefits generated from the Fund

Brief comment C11

The Future Drought Fund has been a critical resource for the Mardawi Community Project to progress our critical work within the Ngarrindjeri community ... This has included engaging within our community through local meetings, information sessions and other activities. We will be able to [develop] strategic partnerships, [establish] networks with other affected regions, and [provide] education and training programs within the Ngarrindjeri community. This initiative will be dramatically beneficial for our Ngarrindjeri people.

Hayley Webster (sub. 61, p. 1)

Since the funding we have run two workshops with DAF, a grass program and a “Billy Tea Day”, both had unprecedented attendance, with the GRASS workshop fully booked with 20 businesses and the Billy Tea Day hosting 36 Local Graziers. What I’m most excited about however is the fact that many of these people were new to attending our events and are keen to continue being active participants in both learning and application of new practices.

... I really feel like the impact we are having is valuable and long lived. It has taken a lot of years and funding from different avenues to achieve these results but the FRRR funding was definitely a turning point in the group and I feel like we have finally got the momentum to get significant on the ground action (implementation) happening with our group.

NRM Regions Australia (sub. 51, p. 6)

Northern and Yorke Landscape Board (SA) delivered significant outcomes for drought resilience as well as land and water management. The Goyder Line: building drought resilience into transitional country project delivered extension and on-ground activities to the region’s most vulnerable farmers to help them adapt to changing climatic conditions ... 52 property maps were created and 41,725ha are now managed to best practice standards. As well as these production benefits, biodiversity was also enhanced through habitat protection and revegetation. This included 3.5ha of shelterbelts, 3,200 plants established and 40ha of remnant vegetation protected. All-in-all, a total of 58,839ha are now protected during times of drought.

NSW Farmers’ Association (sub. 91, p. 7)

[The Farm Business Resilience program] is the only program which has demonstrated positive outcomes in terms of building resilience to drought. In New South Wales, 67% of participants reported an increased likelihood of changing behaviour; 41% of these participants reported specific behaviour changes. 100% of participants in business coaching reported specific intentions to implement priority changes.

... but some problems have constrained the Fund's effectiveness

The implementation of the Fund and its programs have laid a foundation to support drought resilience over the long term. However, implementation problems have constrained the effectiveness of the Fund and its programs, and its ability to achieve meaningful, long-term change for the benefit of the whole community.

The Funding Plan lacks an investment strategy ...

There was no fund-wide strategy for how the \$100 million a year would be spent, how priorities would be achieved, and how programs would be selected, integrated and sequenced. The Funding Plan outlines what *could* be done, not what *should* be done.

For example, under the economic resilience strategic priority, there are 12 broad activities ranging from 'support the collection, management, public accessibility and application of data and information to improve farm and agri-business decision-making, risk assessment and management' to 'promote approaches that overcome barriers to developing innovative infrastructure or creating new lines of business' (Drought Resilience Funding Plan 2020 to 2024, pp. 6–7).

While this broad approach provides flexibility about investment options, it also gives stakeholders little information about what the FDF will support in coming years and why. This information is not available in the public domain, which makes it more difficult for stakeholders to plan their drought resilience activities and to provide feedback to the Department where planned activities could be improved. It also reduces transparency and accountability.

This issue has also been raised in other reviews. In the Drought Resilience Funding Plan Mid-Term Evaluation, Grosvenor (2023, p. 31) found:

There is currently limited tactical planning at the FDF level to ensure programs in development can leverage and [complement] the work and outcomes of other programs while addressing existing gaps. While there is some understanding about how the program suite works together and steps are being taken to action these linkages, program planning tends to occur primarily at the individual program level.

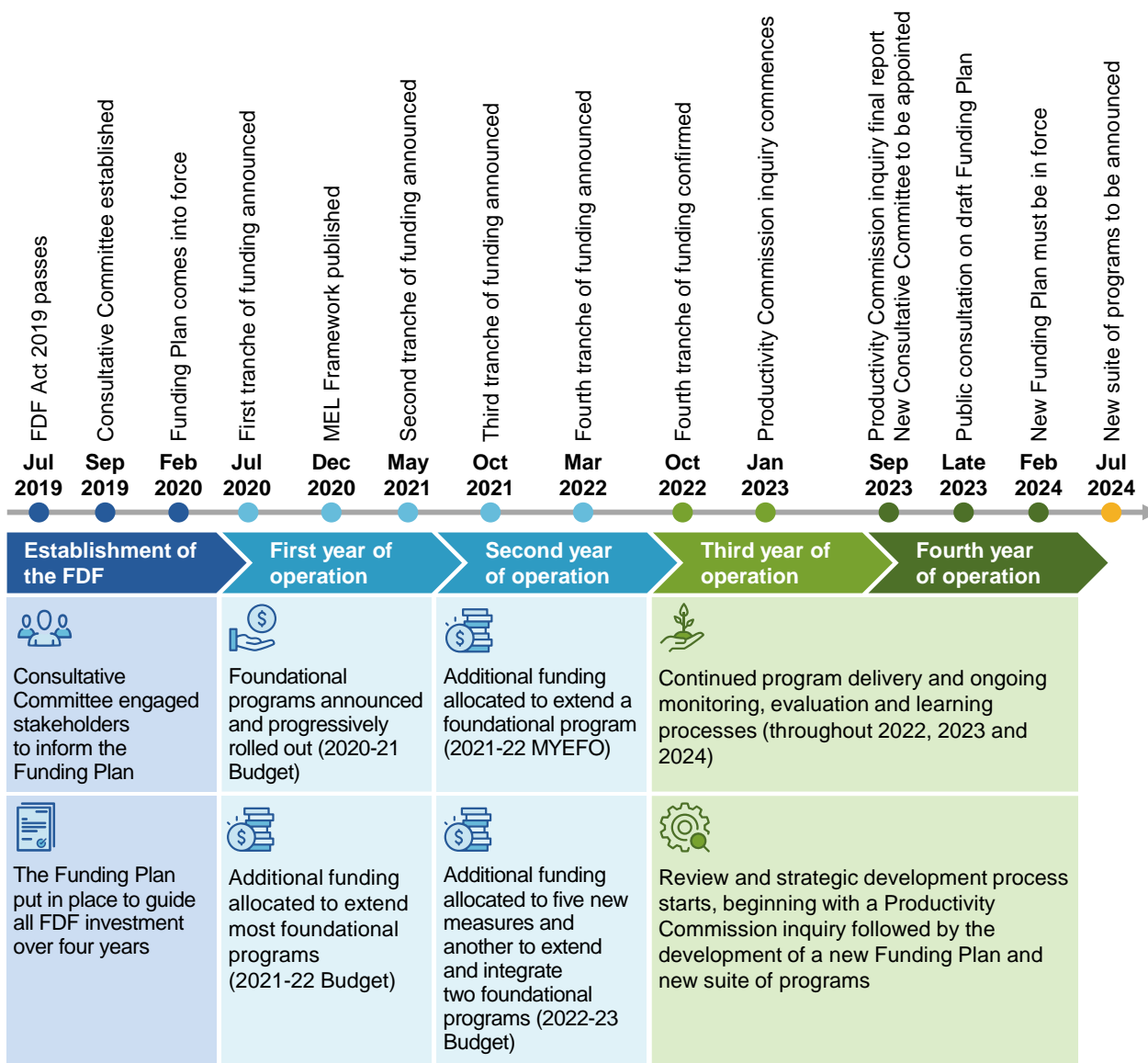
The Senate inquiry into the *Federal Government's Response to the Drought, and the Adequacy and Appropriateness of Policies and Measures to Support Farmers, Regional Communities and the Australian Economy* also found 'a deliberative, transparent process for developing and prioritising projects and funding is required' (SRRATRC 2021, p. 17).

The planned *Drought Resilience Research and Adoption Investment Plan* may have at least partially filled this gap. However, this plan was intended to identify national priorities for drought resilience related research and adoption to guide not just future FDF investments, but also Hub activities and research undertaken by non-FDF entities, such as the CSIRO and RDCs (DAWE 2021a, p. 8). As such, it was unlikely to be a perfect substitute for an FDF-specific investment plan.

... which meant there was no plan to integrate and sequence programs

The initial FDF programs were developed and implemented without a fund-wide investment strategy in place. Foundational programs were launched simultaneously with only one year of funding (figure 2.1). While the foundational programs were later extended, this approach meant there were missed opportunities early in the cycle to integrate and sequence programs.

Figure 2.1 – FDF timeline



Source: Adapted from DAFF (sub. 42, p. 15).

For example, the Rural Economies Centre of Excellence (sub. 38, p. 4) pointed to the missed opportunities to use the regional drought resilience plans to inform the priorities and design of subsequent programs.

There is a logical ‘hierarchy’ between programs that has not been evident in the roll-out of the various FDF programs. As an overarching plan that articulates drought resilience responses designed for the region, the RDRPs should have commenced either at the very start of the FDF roll out and then informed the other investment programs or been done at the end of the rollout of FDF programs.

The FDF Consultative Committee (sub. 3, p. 5) reiterated this point noting:

Whilst an adaptive approach to program development and implementation has its benefits, we have heard a clear message from our stakeholders that it has caused confusion with ‘too many activities happening’ without evidence of a clear coordinating strategy behind it. It also results in instability as stakeholders don’t have visibility to what could be next. It means that early planning

cannot take place, which compounded by short application timeframes, may have resulted in lower quality projects.

That said, the Department has recognised concerns over the lack of coordination and integration between programs. These lessons have, for example, informed the design of the *Helping Regional Communities Prepare for Drought Initiative*. The initiative integrates networks and leadership activities and aims to align with – and leverage – the regional drought resilience plans and Hubs (chapter 7).

Short-term programs are inconsistent with building long-term resilience

Building drought resilience is a long-term goal that requires sustained effort as behavioural change, capacity building, research, and trialling and adoption of new practices all take time to yield meaningful results. Since July 2020, the FDF has released four tranches of funding (figure 2.1). These short-term funding arrangements, characterised by one- or two-year funding periods, have worked against achieving lasting, meaningful outcomes. As Dr Chad Renando (sub. 77, p. 8) said, ‘the stated FDF intent of long-term impact is constrained by short-term commitment’.

Short-term programs do not provide the time for developing and executing sustainable strategies, nor do they align with real world farming conditions. In relation to the *Natural Resource Management Drought Resilience Program*, which received 12 months of funding in 2021-22, DAFF (sub. 42, p. 8) noted:

... it was difficult to align project activities with relevant seasonal windows, particularly if a seasonal planting window was missed due to adverse weather conditions. Short timeframes also created significant challenges to achieving drought resilience outcomes. For example, project outcomes may have been masked by the impacts of significantly higher than normal rainfall events and floods.

The short timeframes may have also ‘negatively impacted the extent of co-design or application of community led approaches’ (Grosvenor 2023, p. 26).

Moreover, insufficient time to set up the required systems to deliver these programs has been a major challenge. This has undermined the ability to plan and coordinate with delivery partners, including state and territory governments. The lack of time has hampered the development of strong partnerships and affected the execution of these programs.

One of the most effective ways to improve the experience of FDF programs for communities would be to increase the timeframes for groups to design, deliver and report on their projects, and to have the flexibility to fund projects, when groups are ready. (FRRR, sub. 37, p. 11)

A longer planning and program timeframe is strongly supported. From an administrative perspective longer timeframes assist with planning, funding arrangements, governance and attracting and retaining staff working on the projects in regional communities. Western Australia is also aware longer timeframes are more reflective of the speed of change of natural systems and would be better aligned to the long-term outcomes identified in the Monitoring Evaluation and Learning Plan outcomes as set out in the FDF program plans. (WA DPIRD, sub. 46, p. 7)

The timing of the short-term programs also impeded DAFF’s ability to establish a robust architecture around programs, most notably the MEL Framework and plans. Without a solid MEL Framework in place, it is difficult to assess the impact of the programs and make necessary improvements to ensure their effectiveness (chapter 5).

Commensurate with the short-term nature of many of the foundational programs is the emphasis on activities that facilitate incremental changes rather than transformational change. Despite the same driver of risk (climate

change), transformational change requires a different approach to building resilience compared to incremental change (Fedele et al. 2019; Ignaciuk 2015; Kates, Travis and Wilbanks 2012). Grants funded by the FDF have tended to favour the types of research and development activities that have traditionally been supported by other organisations in the agriculture sector (such as RDCs), rather than transformative initiatives. The Institute for Water Futures and Centre for Entrepreneurial Agri-Technology (sub. 25, p. 8) submitted:

In the current iteration of the Future Drought Fund, many opportunities have focused on extension and adoption of existing tools, technologies or activities, rather than innovation towards new solutions. Additionally, diverse programs have spread resources thinly, with little scope for genuinely pioneering approaches. As such, it has invested disproportionately in incremental change, and not fully supported the full innovation potential towards more transformative approaches (Funding Rule 6).

Ag Excellence Alliance (sub. 19, p. 1) expressed similar views.

It is too easy to fall back to business as usual and focus on tweaking current systems rather than looking for transformational change. This requires a commitment to longer term investment in drought resilience projects to allow time for transformational change to be demonstrated across variable seasons, and for adoption pathways to be created, implemented and realised.

Participants highlighted the inconsistencies between the short-term nature of the Fund's investments and the long-term nature of transformational change (for example, FDF Consultative Committee, sub. 3, p. 4; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 5; NRM Regions Australia, sub. 67, p. 1). The Commission heard short funding periods with onerous reporting requirements have tended to attract traditional project proposals and stymied more innovative ideas. Transformational projects require sustained effort and funding over long periods (Kates, Travis and Wilbanks 2012), which DAFF (sub. 42, p. 8) has acknowledged.

Experimenting with transformative approaches to build natural capital to increase drought resilience often takes multiple years under varied seasonal production cycles and climatic conditions.

Some participants pointed to other reasons the Fund has had a greater focus on incremental change. The Institute for Water Futures and Centre for Entrepreneurial Agri-Technology (sub. 25, p. 8) argued taking a user-based lens reinforces an incremental change mindset. In addition, Lu Hogan and Professor Lewis Kahn (sub. 62, p. 3) argued only focusing on drought resilience skews investments towards incremental and transitional change.

Limiting the Future Drought Fund to drought resilience will skew investment outcomes to incremental and transitional change, rather than supporting the possibilities of establishing new agricultural systems (as regionally appropriate) better suited to the changing climatic landscape.

Improvements are being made with more recent programs reflecting a shift to longer-term investments to build drought resilience. For example, six-year funding is available under the *Long-term Trials of Drought Resilience Farming Practices* program, and the *Drought Resilience Soils and Landscapes* program is providing more time with the intent of landscape-scale changes.

Having many disconnected programs creates confusion

The number of programs funded through the FDF has added complexity, confused participants and increased administration costs. The Commission has heard that participants struggle to understand and navigate the FDF, an issue compounded by a lack of easily accessible information on what activities are being (or will be) funded in each location. For example, the TAS Farm Innovation Hub (sub. 39, pp. 2–3) noted:

While a strength of [the] FDF is its complementary programs, the number of programs has created confusion among stakeholders and unnecessary duplication by program delivery partners. In Tasmania, the FDF programs compete for the same target audience and rely on many of the same organisations and producers for co-design and implementation ... Better coordination and mapping of state-based FDF funded programs and projects at the outset would have assisted in coordinating programs and on-ground activities.

Similarly, the Rural Economies Centre of Excellence (sub. 38, p. 2) highlighted:

There is a confusing and overlapping plethora of programs currently available to support drought ... The FDF programs have been added to this mix without any clear strategic purpose, and hence contribute to even greater overlap and more confusion. This has been exacerbated by poor coordination between the programs.

These concerns were also acknowledged by DAFF (sub. 42, p. 10).

Stakeholders have noted the complexity of the FDF, and that in some cases this has caused confusion and undermined participation. While efforts have been made to promote opportunities and connect stakeholders and investments, stakeholder feedback highlights that more could be done to support a seamless journey into and through the FDF and other drought resilience investments.

However, as discussed above, improvements are being made to strengthen connections between programs.

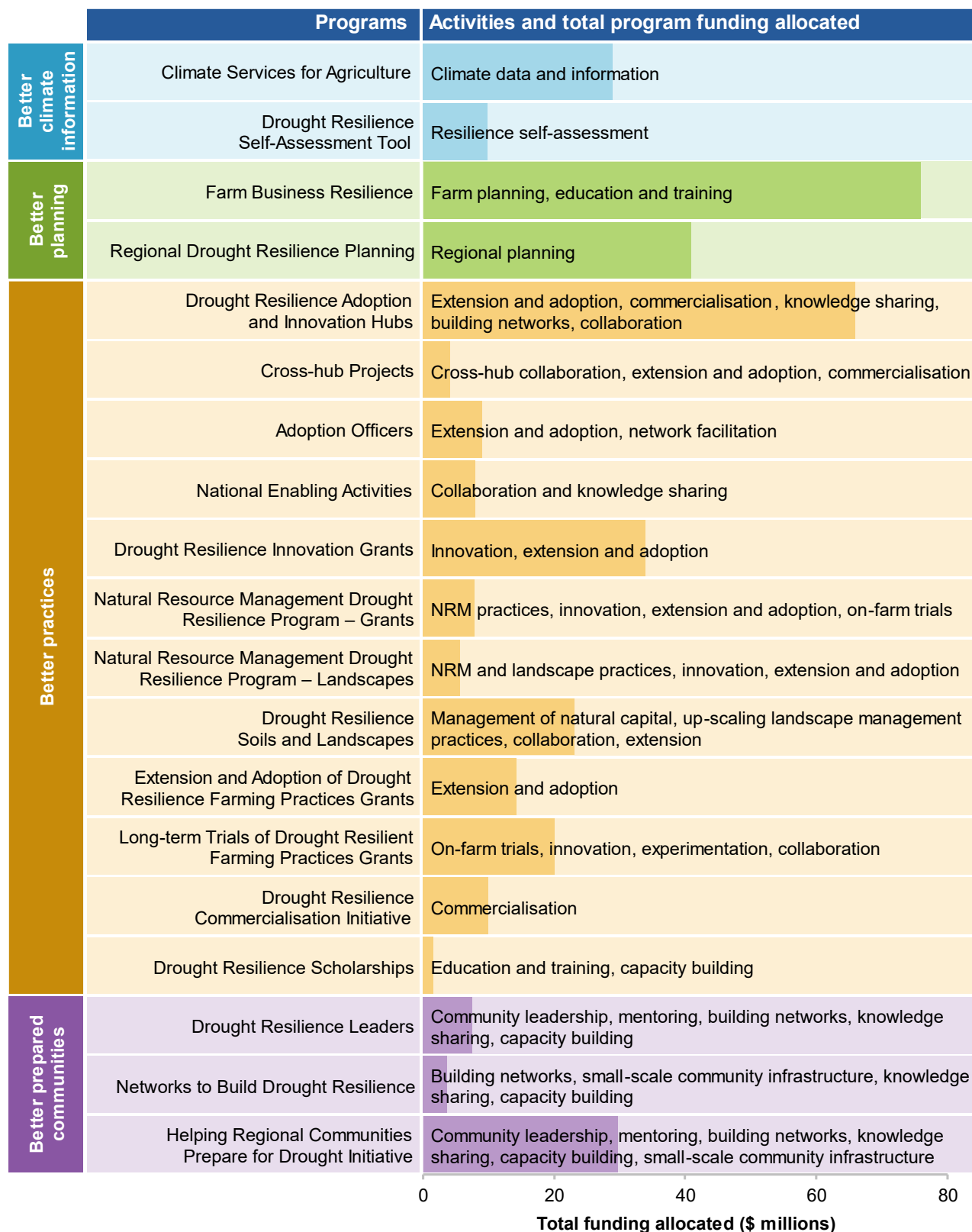
Funding is spread thinly

The FDF has funded 19 programs covering a diverse range of activities, including research, development, extension and adoption, commercialisation, on-farm trials, mentoring, community leadership, NRM practices, knowledge sharing, planning, climate data and information, and many other activities (figure 2.2). The large range of programs and activities under the Fund reflect the diverse activities involved in building the economic, environmental and social resilience of farmers and communities.

However, given the fixed funding of \$100 million per year, there is a trade-off between the scale and breadth of activities. While \$100 million is substantial, the large number of FDF programs and activities means funding is spread thinly. This is particularly true given the FDF is a national fund and funding is not only spread across each program and activity but also across eight states and territories.

As the Institute for Water Futures and Centre for Entrepreneurial Agri-Technology (sub. 25, p. 8) noted 'diverse programs have spread resources thinly, with little scope for genuinely pioneering approaches'. The Farming Systems Group Alliance (sub. 15, p. 3) also highlighted 'when multiple organisations are involved in the delivery of a program, the funding is spread thinly and further reduced by administrative overheads'.

Figure 2.2 – The FDF provides funding to a large range of programs and activities^a
Total funding allocated to FDF programs under the first Funding Plan



a. Funding allocated as at 30 June 2022.

Source: DAFF (2022b).

Given the concerns over the large number of short-term and disconnected programs, a focus on activities that promote incremental change (discussed above), and potential overlaps with other programs (section 2.1), there is scope to improve how the funding is spent under the next Funding Plan to improve the impact of the Fund and its programs. This could include funding longer-term programs that are better targeted and integrated, and leveraging existing networks and programs beyond the Fund (chapter 3).

There are barriers to knowledge sharing

Knowledge sharing is central to building drought resilience. Facilitating knowledge sharing across the FDF supports the diffusion of drought resilience knowledge among primary producers and communities and the application of this knowledge to build drought resilience. Grosvenor (2023, p. 47) found that ‘knowledge capture, accessibility and use is a key principle underpinning the Funding Plan and the achievement of outcomes’. Knowledge sharing is also a key rationale justifying public investment in a range of the activities funded under the FDF by extending and diffusing the benefits more broadly, which generates greater public benefits.

The Funding Plan recognises the importance of knowledge sharing in funding principle 17, which requires ‘that all new knowledge is shared and freely made available in the public domain’ (Drought Resilience Funding Plan 2020 to 2024, p. 5). There have been a range of activities implemented to encourage knowledge sharing. For example, there is an annual Science to Practice Forum, many programs have elements of knowledge sharing, and a learning network is being established under the new Helping Regional Communities Prepare for Drought Initiative (chapter 7).

However, there are barriers that limit the usefulness of FDF knowledge and affect how knowledge is shared across the Fund. A significant barrier is that drought and climate resilience information is fragmented and scattered across many different tools and websites, making it difficult and confusing to navigate. As Nous Group (2022, p. 17) said ‘the breadth and comprehensiveness of drought resilience knowledge is not the issue for target groups, it is the clarity on what knowledge is available, relevant, and applicable’.

Some participants noted it was difficult to find information about the Fund and its activities (NLN, sub. 18, p. 2; Victorian DEECA, sub. 55, p. 6). While the Hubs and knowledge brokers were intended to support the flow of information and knowledge, there was a lack of clarity in their roles and responsibilities (chapter 7).

Learning is also constrained by the way information is delivered. Nous Group (2022, p. 17) found that FDF outputs are ‘not shared in a way that is easily interpreted’ and ‘intended end users ... find it difficult to find and use its outputs to improve drought resilience’.

Finally, there was a lack of structured mechanisms to facilitate knowledge sharing within and across programs. In the Mid-Term Evaluation, Grosvenor (2023, p. 47) said:

External delivery partners identified that there are additional opportunities to share knowledge and resources within and between programs and in the public domain, but that clear, consistent and operationalised mechanisms to facilitate this are not yet in place.

Existing mechanisms – such as the Science to Practice Forum – are useful (chapter 7) but not sufficient.

While the online Science to Practice forum provides the opportunity to showcase activities to a wider audience, it does not provide an adequate exchange with regard to learning, improvement and brokering future collaborations. (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 5)

Overall, these barriers to knowledge sharing across the FDF reflect the lack of a clear and transparent strategy to better manage the generation, dissemination and uptake of FDF information and knowledge, which has limited the learning opportunities that would support program implementation and building drought resilience.



Finding 2.1

The first three years of the Future Drought Fund have revealed both the Fund’s potential and practical challenges

The Future Drought Fund (FDF) is delivering a solid foundation to build economic, environmental and social resilience to drought.

- FDF programs are supporting a broad range of activities that are likely to enhance drought resilience.
- The FDF is fostering new collaborations across diverse organisations and industries.
- Programs were designed following significant community consultation and most have a strong element of local decision-making and delivery.

However, some problems have hampered the effectiveness of the Fund.

- The rapid development and roll out of initial programs meant there was a missed opportunity to launch the Fund as an integrated, sequenced suite of programs.
- The implementation of several short-term programs with limited collaboration and knowledge sharing undermined prospects of sustainable long-term change.
- The design of some programs has limited the potential for achieving community-wide benefits.

3. The next steps for the Future Drought Fund

Key points

- * **The next funding plan period is an opportunity to refine the Future Drought Fund's (FDF) design and operation, in light of the lessons learnt during the Fund's first four years.**
- * **The FDF should fund activities that produce clear net public benefits, while avoiding duplication with other government programs. The mix and design of FDF programs should focus on:**
 - activities that support farmers and communities to make transformational changes
 - activities that enhance natural capital, on-farm and across regions
 - a place-based approach to social resilience.
- * **To improve the design and delivery of the Fund, the Department of Agriculture, Fisheries and Forestry could:**
 - map Australian, state and territory government programs for agriculture, land management, drought resilience and climate change resilience
 - develop a detailed investment plan and refine the FDF's theory of change to explain how the FDF's activities will achieve economic, environmental and social resilience
 - update the funding principles in the Funding Plan to clarify their purpose and use.
- * **Building climate change resilience should be more explicitly recognised as within the FDF's scope, while ensuring drought remains the primary focus.**
- * **A knowledge strategy could be developed to better manage the generation, dissemination and uptake of FDF information and knowledge.**

The next four years are an opportunity to apply the lessons learnt during the first four years of the Future Drought Fund (FDF). Opportunities to improve the Fund include:

- focusing on activities which are likely to deliver greater public benefits through:
 - supporting transformational change
 - building natural capital
 - continuing to invest in place-based approaches for social resilience.

- strengthening the FDF's design and delivery by:
 - improving the Fund's aim
 - mapping other Australian, state and territory government policies and programs
 - developing an investment plan and strengthening the theory of change
 - improving the funding principles.
- explicitly recognising that building climate change resilience is within scope
- improving opportunities for knowledge sharing.

Other improvements to the governance, the Monitoring, Evaluation and Learning (MEL) Framework, individual FDF programs, and engagement of Aboriginal and Torres Strait Islander people are also recommended. These are discussed in chapters 4–7.

3.1 Focusing on activities delivering the greatest benefits

The FDF should build drought and climate change resilience by investing in activities that address market failures, produce public benefits and do not duplicate other programs (chapter 2). The Productivity Commission recommends that the Fund generally focus on activities which:

- support transformational change
- enhance natural capital
- use place-based approaches to strengthen social resilience.

The program-specific recommendations set out in chapter 7 provide a first step to give effect to these broad directions.

Supporting transformational change

As a perpetual fund, the FDF has the advantage of being able to provide long-term funding to support farmers and communities embarking on transformational change. It follows that compared with conventional programs, the FDF can support promising, but higher risk projects over longer timeframes. Despite this comparative advantage, FDF activities have been skewed towards incremental change (chapter 2), increasing the risk that the FDF may be subsidising activities which would have occurred without FDF funding.

As highlighted in chapter 2, the information and coordination failures associated with transformational change tend to be more pronounced compared to incremental change and provide a greater justification for government investment.

Deliberate, proactive transformational change in response to evolving climate risks can result in better long-term outcomes compared to reactive or incremental changes. Transformational change has profound ramifications for industries, regional economies and communities, along with significant disruptions to well-established supply chains. The Fund is well-placed to establish the building blocks needed to facilitate transformational change if and when farmers, industries and communities decide to undertake change. These building blocks include:

- information to help farmers and communities better understand the risks and benefits of transformational change, such as funding improvements to, and dissemination of, regional climate change projections and research into innovative options (Howden et al. 2007; OECD 2020)

- human and social capital to help farmers and communities better assess risks and carry out transformational change, such as education and fostering networks (Marshall 2010; OECD 2020)
- individual and collaborative planning processes to help farmers and communities plan transformative changes, such as using climate and land use scenarios in vulnerability assessments to identify what adaptation strategies are most likely to succeed over the long term (Fedele et al. 2019)
- extension services to advise farmers on the adoption of new technologies or practices (Pannell 2010).

These types of activities are already supported by the Fund (chapter 7). And there is evidence that the Department is improving the Fund in response to the early implementation challenges in ways that will facilitate more transformational change (chapter 2). For example, the *Drought Resilient Soils and Landscapes program* has adopted the lessons of the previous FDF natural resource management (NRM) programs and offers longer-term funding to enable larger-scale programs (chapter 7). The *Long-term Trials of Drought Resilient Farming Practices Grants* will provide funding to test drought resilient farming practices over six years. Demonstrating longer-term success can give primary producers the confidence to undertake riskier and more transformative changes.

Many inquiry participants support a greater focus on facilitating transformational change (for example, FDF Consultative Committee, subs 3, p. 2 and 69, p. 4; IWF and CEAT, sub. 79, p. 8; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 3; NFF, sub. 64, p. 6; TNQ Hub, sub. 88). The Ag Excellence Alliance (sub. 19, p. 1) stated:

Transformational opportunities needed to strengthen drought resilience require greater focus in future programs. It is too easy to fall back to business as usual and focus on tweaking current systems rather than looking for transformational change. This requires a commitment to longer term investment in drought resilience projects to allow time for transformational change to be demonstrated across variable seasons, and for adoption pathways to be created, implemented and realised.

The Commission's proposed improvements to programs such as the *Regional Drought Resilience Planning, Farm Business Resilience (FBR), Climate Services for Agriculture (CSA)*, as well as a challenge-oriented approach to the *Innovation Grants* program (recommendations 7.1–7.5) will also help to facilitate transformational change. Moreover, how FDF-supported activities contribute to transformational change should be clearly explained in the proposed investment plan (section 3.2).

Building natural capital

There is a strong rationale for the FDF to support improving environmental resilience (ALCA, sub. 78; NFF, sub. 64, p. 11; NRM Regions Australia, sub. 67, p. 1; TMI, sub. 57). Activities that manage, preserve and enhance natural capital can deliver benefits for the individual farmer and the broader community. As the Australian Land Conservation Alliance (sub. 78, p. 2) noted:

Nature underpins our wellbeing, our food security, and our economies and must be protected and effectively managed. Subsequently, there is a critical role for biodiversity protection and the effective management and restoration of our natural capital.

Agricultural production systems rely on the natural capital of landscapes and the ecosystem services that flow from them. Services include biological pest control, pollination, provision of water, as well as soil structure and fertility. Natural capital also provides less tangible ecosystem services such as biodiversity and carbon sequestration that benefit the broader community and are distinct public goods (Power 2010). Australian farmers are important landscape stewards who manage natural capital, delivering both private and public benefits.

The focus of government investment in recent history has shifted from supporting agricultural production through agriculture extension services to environmental outcomes through programs such as Landcare. As highlighted in the Commission's 2009 inquiry into Government Drought Support, production-oriented

extension activities provide benefits that largely accrue to private farmers. Services that promote environmental outcomes benefit the community more broadly, so government provision is more justified (PC 2009, pp. 188–191). However, investments in natural capital provide private benefits to landholders, and governments should focus on natural capital activities that also provide broader public benefits.

Conventional agricultural practices have been a major contributing factor to environmental degradation globally (Garibaldi et al. 2017; Tilman 1999). In recent times, there has been more emphasis on the sustainable intensification of agricultural landscapes, increasing their productivity while also improving ecological and social conditions, through initiatives such as climate smart agriculture. Common attributes associated with environmental resilience include connectivity of habitats, biological diversity and adaptability, among others (Timpane-Padgham, Beechie and Klinger 2017).

More focus on building natural capital is likely to align better with the priorities of many Aboriginal and Torres Strait Islander communities and organisations. Aboriginal and Torres Strait Islander people and organisations are recognised as having highly valuable expertise in land management (ALCA, sub. 78, p. 3; ATSE, sub. 7, p. 3; La Trobe University, sub. 35, p. 3; TMI, sub. 57, p. 3; Victorian DEECA, sub. 55, p. 4). They are the owners and managers of a significant proportion of Australia's landmass (Jacobsen, Howell and Read 2020) and play leading roles in landscape repair and resilience building work in partnership with governments and NRM groups (LGAQ, sub. 22, pp. 10–11; Rangelands NRM Coordinating Group, sub. 50, p. 7; Tasmanian Government, sub. 52, p. 7).

Emphasising the (existing) broader focus of the Future Drought Fund programmes to better underline environmental and social sustainability may align better with the commonly more holistic aims and values of traditional owner groups, especially in regions where there is little involvement, and a very cautious attitude towards agricultural industries. (Vic Drought & Innovation Hub, sub. 28, p. 4)

Building natural capital is already a key objective of the FDF, and natural resource management activities are a focus in many programs, including:

- the Drought Resilient Soils and Landscapes program (and previously the *Natural Resource Management Drought Resilience Grants and Landscapes* programs), which provides grants to projects to demonstrate land management practices at a broad scale
- the *Drought Resilience Adoption and Innovation Hubs*, which all have NRM-related activities in their priority themes and areas
- cross-hub projects such as *Managing Rangelands for Building Drought Resilience*
- the Farm Business Resilience program, which provides training on NRM, among other topics
- the Regional Drought Resilience Planning program, which involves regional communities identifying actions to prepare for drought, including NRM activities (chapter 7; Southern NSW Innovation Hub, sub. 56, p. 6).

There are also many government programs outside the FDF investing in natural capital, for example, the Australian Government invests through the National Landcare Program, Agriculture Biodiversity Stewardship Package, Australian Carbon Credit Unit Scheme (formerly the Emissions Reduction Fund) and the proposed Nature Repair Market (box 3.1).

Box 3.1 – Australian Government natural resource management programs

Natural Heritage Trust and National Landcare Program

The Natural Heritage Trust is the Australian Government's main natural resource management program. Phase two of the program, which ended in June 2023, was made up of several National Landcare Program initiatives. Key projects included: Landcare Australia and the National Landcare Networks; Regional Land Partnerships; and Smart Farms (DAWE 2022b).

- Landcare groups, supported by Landcare Australia and the National Landcare Network aim to improve biodiversity, build resilience in Australia's food and farming systems, and create stronger communities through initiatives such as natural habitat restoration and other conservation activities. There are over 5,000 local community Landcare groups and networks (Landcare Australia 2022; NLN 2020).
- The Regional Land Partnerships program funded NRM groups to undertake locally relevant projects aimed to improving on-farm soil and biodiversity and plant life, and help farms adapt to climate change (DAWE 2022b).
- The Smart Farms program aimed to improve sustainable agriculture practices and included:
 - Smart Farming Partnerships, which aimed to develop, trial and implement new and innovative tools that lead to practice change and more sustainable, productive and profitable agricultural industries and systems
 - Smart Farms Small Grants funded organisations and individuals to undertake sustainable agriculture projects and build the capacity and capability of Australia's farmers, fishers and foresters to adopt best practice natural resource management methods
 - Building Landcare Community and Capacity provided funding to support Landcare and farmer organisations on an ad-hoc basis to improve the delivery of programs (DAFF 2023b).

The new phase of the Natural Heritage Trust is focused on partnering with industry to achieve a more climate resilient, productive and sustainable agriculture sector. A key aspect of this phase is the Climate-Smart Agriculture package, which will support farmers to:

- adopt climate-smart practices that reduce emissions and build resilience to climate change
- understand and benefit from participation in carbon and biodiversity markets
- apply natural resource management practices that improve soil health and protect natural capital and biodiversity (DAFF 2023c).

Agriculture Biodiversity Stewardship Package

The Agriculture Stewardship Package aims to encourage private investment in biodiversity and other sustainability practices. The package has trialled two pilot projects in regions across Australia: the Carbon + Biodiversity Pilot and Enhancing Remnant Vegetation Pilot. The programs use biodiversity protocols developed by the Australian National University. In the Carbon + Biodiversity initiative, landholders undertaking carbon plantings can also receive payments for biodiversity, while the Enhancing Remnant Vegetation Pilot provides payments for managing or improving remnant vegetation (DCCEE 2023a).

Australian Carbon Credit Unit Scheme

The Australian Carbon Credit Unit Scheme provides landholders, communities and businesses with an alternative revenue stream for projects that sequester carbon or avoid the release of greenhouse gases. Eligible projects can earn Australian Carbon Credit Units, which can subsequently be sold to the

Box 3.1 – Australian Government natural resource management programs

Australian Government through carbon abatement contracts or to private buyers. The establishment of an Australian Carbon Exchange by the Clean Energy Regulator will facilitate the exchange of carbon credits and spur demand for carbon sequestration and abatement projects (CER 2023). For farmers and landholders, the scheme can fund activities that enhance natural capital, such as revegetation, protecting native forest or adopting practices that also reduce methane emissions (CER 2023).

Nature Repair Market

The Nature Repair Market Bill 2023 is yet to be legislated. If passed, the mechanism is designed to encourage voluntary private investment in projects to enhance or protect existing habitat, or to establish or restore habitat (DCCEEW 2023c). Projects could be undertaken by landholders including Aboriginal and Torres Strait Islander people, conservation groups, governments and farmers. Projects could include:

- improving or restoring native vegetation through activities such as fencing or weeding
- planting a mix of local native species
- protecting rare grasslands that provide habitat for an endangered species (DCCEEW 2023b).

Certified projects will be able to sell tradable certificates to buyers under commercial contracts. The initiative is designed to reward landholders that restore and protect nature and provide businesses with a transparent way to support such activities (DCCEEW 2023b).

The significant government investment and breadth of programs in the natural capital domain highlights the need for the Department of Agriculture, Fisheries and Forestry (DAFF) to map current programs to ensure FDF activities are well targeted (section 3.2). Nevertheless, the Commission considers that the FDF could deliver greater public benefit through more emphasis on building natural capital. This can be done in two key ways.

- A greater share of FDF funding could be devoted to programs that deliver natural capital benefits. For example, more grants could be provided under the Drought Resilient Soils and Landscapes program.
- Existing programs could include more NRM activities – for example, Hubs could increase their focus on landscape improvements, or the Farm Business Resilience program could have a greater emphasis on climate smart practices or other natural capital activities.

The Fund should leverage off existing NRM programs, including the National Landcare Program and Indigenous Ranger groups. Collaboration can help to avoid duplication and improve outcomes (ALCA, sub. 78, p. 3; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 3). The Australian Land Conservation Alliance (sub. 78, p. 4) highlighted the need to foster collaboration and coordination between the FDF and the National Landcare Program to ‘maximise their combined impact and create a comprehensive approach towards mitigating drought and enhancing the resilience of our ecosystems’. The National Farmers’ Federation (sub. 64, p. 11) noted:

FDF investment in NRM activities must consider the existing NRM program landscape to avoid duplication and deliver additional value to industry. As noted in the Interim Report, there are many existing government and private programs in the NRM space. The FDF has previously and continues to support NRM activities through the Natural Resource Management Drought Resilience Program and the more recent Drought Resilient Soils and Landscapes program. Additional FDF investment in NRM activities should be strategically planned, through robust sector consultation, to best support, align with or extend existing programs.

The South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 1) also said:

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 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.

This collaboration needs to occur at both the Fund level and regional levels, such as the Hubs working with local Landcare networks. This increased emphasis on building natural capital also needs to be built into the proposed investment plan (recommendation 3.2).

A place-based approach to social resilience

The FDF's role in fostering social resilience

The effects of drought – economic, environmental and social – extend well beyond the farm gate. A perennial criticism of past in-drought assistance has been the dearth of support for regional communities. The FDF addresses this concern by including social resilience as one of its three strategic priorities.

It is widely accepted that strong social capital – shared norms, trust and resources accessed through social connections – helps communities prepare for, withstand and adapt to the impacts of drought (box 3.2).

Many participants have highlighted the importance of social resilience as an objective of the Fund.

Investment in social resilience helps to strengthen the social capital of communities called upon in times of challenge by bringing communities together, strengthening networks and personal connections. Further, it builds capability in grassroots organisations, decreases social isolation, and strengthens the mental wellbeing of farming and regional communities. (Farmers for Climate Action, sub. 65, p. 2)

... there is significant evidence both real and anecdotal to demonstrate that individual and community wellbeing is a key indicator of resilience to environmental and economic stressors. (Southern NSW Innovation Hub, sub. 74, p. 4)

The resilience literature emphasises an integrated approach to building resilience. Attempts to develop economic, environmental, or social resilience separately, or focussing only on some subsystems, can lead to missing significant vulnerabilities and resilience conferred from relationships among these subsystems. (CSIRO, sub. 80, p. 5)

But, it is far from agreed *how* governments can nurture social resilience. There is little data or empirical testing to understand community wellbeing and resilience, let alone the effectiveness of government social capital programs (PC 2009, p. 413; Schirmer, Dare and Mylek 2019). Defining and measuring the various forms of social capital (for example, the presence and quality of social connections) and how these factors contribute to social resilience in different communities is challenging (Kerr 2018; Schlosberg et al. 2018).

Further, even when there is social capital present before drought – such as community networks and social activity – the social impacts of drought can still occur (Lester, Flatau and Kyron 2022). Moreover, government initiatives might prove less effective when individuals can cultivate their own connections with friends, family and other members of the community. And in some cases, there is a risk government may not

target activities at local priorities. For instance, community support provided to the Bega Valley region during previous natural disasters was viewed by some as out of touch with local needs:

But now what I'm seeing is when support organisations approach them, they're like "just leave us alone. We don't need another cooking event, we don't need another day of Reiki and massage, you know, we need some gravel on the road." (Dare and Schirmer 2021, p. 99)

Box 3.2 – Forms of social capital that support individual and community resilience

Social connections and community participation

Various studies have identified the positive impact on social resilience from strong connections among family, friends and community. For instance, McManus et al. (2012) measure social resilience using perceptions of community spirit in two rural regions of New South Wales that experienced significant drought. They found social and community life did not decline in part because farmers sought social participation, often motivated by relative isolation in rural areas. This comes largely from informal connections with neighbours and family and also formal connections through participation in sporting, volunteering and environmental groups.

Other studies have highlighted the importance of shared cultural, economic or recreational interests for social networks (Buikstra et al. 2010; Kwok et al. 2016; Saja et al. 2019), as well as being valued within a community and people building informal support networks from knowing each other (Hegney et al. 2007; Khalili, Harre and Morley 2015).

Caldwell and Boyd (2009) interviewed farming families impacted by drought and found the main collective coping strategies were largely informal – including support from family, involvement in community groups like the local football club, connecting with community at the local pub and strong social connections from growing up in an area.

Leadership

Local leadership is often brought up as an important factor for drought resilience and broader disaster management in communities. This is typically based on perceptions that community leaders provide vision and encouragement for the community to adapt to the challenges of drought (Kulig, Edge and Joyce 2008; Buikstra et al. 2010; Dale, Ling and Newman 2010; Raheem et al. 2019). However, studies have not investigated the extent to which formal leadership training can produce local leaders and the extent that they arise naturally from strong community engagement and opportunities to lead.

Professional networks

Research often highlights the importance of social capital for resilience in terms of professional networks in the agriculture sector. For instance, the Organisation for Economic Co-operation and Development (OECD; 2020b) argues that social capital in the form of professional networks between producers, industry organisations and government can be important to ensure resilience policy is effectively communicated and targeted. The OECD notes that international research finds adaptive capacity of farmers is enhanced by extended networks outside of local social groups that enable sharing of resources, knowledge and innovations (for example, Darnhofer 2010; Tompkins and Adger 2004; Wreford, Ignaciuk and Gruère 2017). Research sometimes refers to this as 'bridging capital' because it

Box 3.2 – Forms of social capital that support individual and community resilience

reflects the extent that a community has exposure and links to outside resources and ideas to support adaptation and transformative practices (Kerr 2018).

In Australia, Dowd et al. (2014) found that strong external networks and weak social/community ties tended to be associated with more transformational change in the agriculture sector because individuals are more exposed to innovative practices and have less pressure to adhere to traditional practices and norms.

These challenges do not mean there is no role for government involvement. However, support should be well designed, targeted and evaluated.

For example, government activities should be targeted at the levers that improve a community's ability to manage the social impacts of drought. One example of this is support for health and social services, such as mental health care (Buikstra et al. 2010; Polain, Berry and Hoskin 2011; Vins et al. 2015; PC 2020b). The National Rural Health Alliance (sub. 27, p. 2) noted that young farmers who are financially constrained and geographically isolated are more likely to experience severe mental health impacts during drought. They highlighted several barriers to mental health services for rural farmers:

This population group already faces barriers to help-seeking and accessing care due to sociocultural factors, availability of health services, and structural barriers such as travel and cost. These drivers of inequity are an important consideration for mitigating against some of the mental health impacts of drought.

This type of support also allows for clearer measurement of outcomes. For instance, a project delivered through the *Networks to Build Drought Resilience* program targeting mental health awareness was able to measure improvements in wellbeing, the number of conversations about mental health and wellbeing and community engagement in activities to enhance wellbeing (Associate Professor Kate Gunn, sub. 59).

While the effectiveness of these activities should still be evaluated, there is a stronger link between these types of social support and building social resilience to drought. The FDF should ensure all social resilience activities are demonstrating how they are building resources and practices to help a community reduce the social impacts of drought.

Programs targeting social resilience also require adequate investment in MEL activities to ensure underlying program assumptions can be tested and refined. The Helping Regional Communities Prepare for Drought Initiative will include a study on social resilience indicators to support monitoring of outcomes. If successful, the study may provide a stronger framework for monitoring outcomes and an opportunity for the FDF to contribute to a better understanding of the effectiveness of government support. Chapter 7 provides further detail on how community programs can be refined and evaluated to strengthen their support for social resilience.

Strengthening a place-based approach to social resilience

To ensure the Fund can most effectively enhance social resilience, it should continue to prioritise program design and delivery that uses place-based planning. A place-based approach to social resilience involves communities taking an active role in assessing their own capacities, social needs, opportunities and possible strategies in reducing the social impacts of drought.

However, communities should not be expected to achieve resilience-building entirely on their own. Building resilience will sometimes require a coordinated approach with other actors (such as government, industry

and regional partners). It also requires prioritising broad engagement with community members, including residents, government and service providers, and being mindful of conflicts that can emerge over access to funding and representation of the community (Dare and Schirmer 2021, p. 102).

A place-based approach may also provide stronger program evaluation because the communities experiencing drought are best placed to assess the effectiveness of support provided, particularly if they had ownership over these activities (Schlosberg et al. 2018).

The Fund's foundational community programs took a nationally led approach to building social resilience that may not have effectively targeted resilience at a local and/or regional level or designed appropriately tailored solutions. The Department has since strengthened this approach by ensuring that the second phase of community grants are developed through a co-design process that prioritises organisations with links to regional plans. This approach may be effective in building local capacity through a well-resourced national provider. However, the Department will need to ensure this approach does not fragment or confuse planning processes already in place or to be developed in the future (chapter 7).

To ensure investment in social resilience is achieving the greatest net benefit for drought impacted communities, three priorities are critical for the Fund.

- Ensuring social resilience programs are appropriately targeted and clearly supporting social resilience to drought.
- Continuing to strengthen a place-based approach to social resilience.
- Investing in monitoring and evaluation to understand what is being delivered, identify if benefits are being realised and build the evidence base on program effectiveness.



Recommendation 3.1 **Opportunities for achieving greater public benefits**

The Australian Government should enhance the public benefits being delivered by the Future Drought Fund, including:

- making support for transformational actions a higher priority
- investing more in activities that build natural capital, drawing on support from relevant organisations
- continuing the shift to place-based planning and actions for supporting social resilience.

3.2 Strengthening the design and delivery of the Fund

Improving the Fund's aim

The Future Drought Fund's aim, as articulated in the Funding Plan, implies that building drought resilience in and of itself enhances the public good. The FDF's broad interpretation of the aim suggests that any activity that contributes to economic, social or environmental resilience to drought is a public good and could merit government funding. This does not consider who bears the cost of activities, nor who benefits from activities. In addition, it does not include building climate change resilience (recommendation 3.3).

Relying on this interpretation of the aim to justify government support is particularly questionable in the case of the Fund's first objective (to grow the '*self-reliance and performance (productivity and profitability) of the*

agricultural sector), given the greater likelihood the government is funding activities that would have occurred anyway (section 2.1).

The Commission considers that the vision, strategic priorities and objectives are appropriate for the current and future Funding Plans. To remove any ambiguity, the Australian Government should confirm that the FDF will only invest in activities that are expected to make the Australian community better off overall. It should also reflect that the FDF has been established to fill gaps in support for building drought resilience and is investing in activities that would not occur otherwise. The FDF's aim should be amended to:

The aim of the Future Drought Fund is to build drought and climate change resilience in Australia's agricultural sector, the agricultural landscape, and regions. The Fund will invest in activities with long-lasting benefits, activities which would not otherwise occur and which will lead to the Australian community being better off overall.

Identifying areas of greatest need

As discussed in chapter 2, some FDF programs could be better targeted and/or potentially overlap with existing Australian, state, territory and local government policies and programs.

The Commission recommends that the Department work with other departments and jurisdictions to map Australian, state and territory government policies and programs for agriculture, land management, drought resilience and climate change resilience. This process would identify overlaps, ensure the Fund is well targeted, and identify opportunities for partnerships, collaboration and leveraging off other programs. Some inquiry participants supported this approach:

It is recommended that the PC consider the benefits of an analysis of jurisdictional drought and related programs compared to the FDF to determine duplication, replacement, or possible leverage of existing drought programs within the states and territories as part of adhering to this Principle (WA DPIRD, sub. 46, p. 2).

It is proposed that a policy mapping initiative be embedded into the FDF and greater emphasis be applied to network mapping. The FDF program overall is wide-reaching, creates new entities and initiatives in existing frameworks, and in the case of the Regional Drought Plans provides a means to aggregate, consolidate, and align existing programs and policies. An available and accessible map of current policies and programs will support identifying gaps and opportunities for future FDF funding strategies. (Dr Chad Renando, sub. 77, p. 7)

The mapping exercise could identify changes needed to the Fund's scope or range of FDF activities because of overlap with other programs. While it is unlikely this exercise could be undertaken before finalisation of the next Funding Plan, it should inform the priorities for the proposed investment plan (recommendation 3.1) and the Fund's scope, articulated in future Funding Plans.

Ensuring alignment with other government policies and programs will be an ongoing process, as the policy landscape evolves. The Fund must periodically and comprehensively assess how best to build resilience. The inclusion of climate change resilience within the Fund's scope and the proliferation of climate-related policies, such as the National Adaptation Plan, accentuates the need for regular mapping reviews.

A detailed investment plan is needed

The lack of a clear fund-wide plan laying out how the \$100 million a year will be spent has hampered the Fund's ability to achieve its intended outcomes (chapter 2). Without a clear strategy integrating programs and directing funds to the most productive activities, there is a risk that the FDF will not maximise net public benefits.

The Fund would benefit from an investment plan to articulate a strategy for delivering the objectives of the Fund. Having a detailed, public investment plan will help set expectations and allow stakeholders to understand the FDF's funding priorities and improve transparency and accountability. To prioritise funding, including for those activities identified in section 3.1, the investment plan will necessarily need to outline where funding allocated to other programs could be reduced.

The investment plan should set the strategy that determines how funds are prioritised to achieve desired outcomes and reflect the theory of change in practice (below). As part of developing an investment plan, the Department will have to make decisions around which programs continue and the level of resourcing they receive. It is expected that overtime both the existence of programs and/or the level of their funding will change in line with priorities.

The investment plan could provide information on:

- the strategy for achieving FDF objectives in the longer term (including building climate change resilience)
- what activities and programs will be prioritised over the next four years
- the theory of change underpinning the programs and investment priorities
- how the Fund will support transformational change
- the funding process, including how funding is to be delivered (for example, through a grant round or via a delivery partner)
- how funding is monitored and reported
- the sequence and scale of FDF activities
- the outcomes the funded activities are expected to achieve
- how the funded activities are integrated
- how FDF activities will interact with other non-FDF policies and programs.

The investment plan should be separate from the Funding Plan, as it does not need to be a legislative instrument. The investment plan could be developed by the Department once the next Funding Plan is in place. While the plan's primary focus can be on the next four years, it could also consider longer-term priorities. Ideally the investment plan would be updated regularly to capture the evolving priorities of the Fund and other policy changes.

Strengthening the theory of change

The FDF's theory of change sets out a hypothesis of how economic, environmental and social resilience each contribute to realising the vision of the FDF (figure 3.1). The theory of change and the program logic together form the program theory for the FDF.

Figure 3.1 – Future Drought Fund theory of change

If ...	Then ...	Has the impact of ...	To create transformational change ...	Contributes to the vision of ...
↻	↻	↻	↻	
<p>If there is more drought resilience RD&E and new technologies are developed and made more accessible ...</p> <p>If primary producers have more of the data and information (including climate forecasts) they need for farm and agribusiness decision-making ...</p> <p>If primary producers and agribusinesses have increased business planning and risk management capability ...</p>	<p>Then more primary producers will adopt transformative technologies and approaches and so will be able to respond effectively to drought.</p> <p>Then their risk assessment and management will be more accessible, tailored and useable.</p> <p>Then their strategic business planning and risk assessment will be more effective, and will mitigate their financial exposure to drought.</p>	<p>Agricultural businesses are self-reliant, productive and profitable</p>	<p>Healthy businesses interact with and contribute to a complex wider agricultural system and economy</p>	<p>An innovative and profitable farming sector, a sustainable natural environment and adaptable rural, regional and remote communities – all with increased resilience to the impacts of drought and climate change.</p>
<p>If primary producers better understand the state of their natural capital and have increased awareness of best practice NRM techniques and services ...</p> <p>If primary producers implement drought plans and adaptive and transformative approaches to manage natural capital ...</p>	<p>Then, given they have an incentive to act, they will be better positioned to preserve and enhance their natural capital.</p> <p>Then they will better manage natural resources through drought, and the natural capital of agricultural landscapes will be improved for better environmental outcomes.</p>	<p>Agricultural landscapes are functional and sustainable, with healthy natural capital.</p>	<p>Environmental management is connected across landscapes, with primary producers collectively responding to feedback and maintaining diversity across whole systems.</p>	
<p>If community leaders exercise their leadership skills confidently and if community members participate in social and professional community networks and interagency partnerships ...</p> <p>If information and knowledge on drought preparation and planning is shared in communities and led by community leaders ...</p>	<p>Then there will be greater connectedness, purpose and stronger social capital within communities that supports drought planning and efforts to build drought resilience.</p> <p>Then communities will proactively plan and prepare for drought in well-informed and innovative ways.</p>	<p>Agricultural communities are resourceful, adaptable and thriving.</p>	<p>Agricultural communities respond to drought cohesively and effectively, drawing on social capital, collective preparedness, and inclusive community networks.</p>	

Source: DAWE (2020c, p. 11).

The next Funding Plan provides an opportunity to refine the theory of change and incorporate changes to the scope and objectives of the FDF in the theory of change, such as those recommended by the Commission.

The theory of change could better describe how the strategic priorities of economic, environmental and social resilience are mutually reinforcing, and how the Fund’s activities are expected to achieve these

priorities in an integrated way. There is little doubt that improving one form of resilience may have positive effects on one or both other forms. But being clearer about the linkages would help policy makers and program developers to decide where the best (direct and indirect) results can be achieved.

The South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 2) highlighted how a detailed theory of change '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'. Improving the theory of change is also important as it can directly influence individual program and Hub MEL plans (GGA and SW WA Hub, sub. 86, p. 7).

The FDF's theory of change could also better:

- define the intended outcomes of the FDF and its activities
- guide what the Fund could strategically invest in, and in what sequence, in the short, medium and longer term
- describe how FDF programs must work together to drive incremental, transitional and transformational change
- describe how FDF programs mutually reinforce economic, environmental and social outcomes
- consider the changes required for supporting transformational change, and articulate those that would have the greatest impact
- articulate roles of key participants and their networks (for example, natural resource management groups, grower groups, RDCs and innovation institutions)
- outline the assumptions between activities and outcomes – for example, what is assumed to also need to occur for primary producers to use information generated to inform their practices?

Participants agreed with the need to improve the theory of change (for example, JCU, sub. 83, p. 1; SA Hub, sub. 82, p. 2; TNQ Hub, sub. 88, p. 5). Dr Chad Renando (sub. 77, p. 18) further suggested expanding the theory of change to 'include greater detail around individual indicators'.

Aligning the Funding Plan with other drought policy

The Funding Plan does not articulate how the FDF fits into the broader agriculture policy landscape and how it aligns with other drought and climate change policies and programs. For example, the Australian, state and territory governments have in place a joint, overarching National Drought Agreement which sets out their respective roles and responsibilities. The FDF is one of the key responsibilities of the Australian Government in the current National Drought Agreement (due to expire in June 2024; COAG 2018). The Funding Plan makes no mention of this.

Without clarity at this highest level, there is more likely to be confusion, duplication and/or gaps in the broader policy landscape. Dr Chad Renando (sub. 77, p. 9) highlighted how 'the lack of clarity created competitive tension during roll out as new actors and initiatives were introduced, and it was left to the new actor to convey their position to incumbents'.

Participants supported the Commission's suggestion that the next Funding Plan should articulate how the FDF aligns with other drought and climate change policy and programs (Dr Chad Renando, sub. 77, p. 9; FRRR, sub. 70, p. 6; NFF, sub. 64, p. 12; Northern Hub, sub. 84, p. 5; TMI, sub. 57, p. 3).

Improving the funding principles

The Funding Plan outlines 17 funding principles that apply:

- in relation to any arrangements and grants made to a person or body under section 21 of the Future Drought Fund Act 2019; and
- where such arrangements and grants relate to a program of further arrangements and grants to be made by the person or body for the purposes set out in that section, in relation to those further arrangements and grants. (Drought Resilience Funding Plan 2020 to 2024, p. 4)

The Commission heard that several inquiry participants did not actively draw on the funding principles. That said, most inquiry participants noted their general support for them.⁵ For example:

DAF considers overall the funding principles of the Drought Resilience Funding Plan are appropriate and are consistent with the objectives of the National Drought Agreement (NDA). (Queensland DAF, sub. 54, p. 2)

The funding principles of the FDF are well documented, clear and succinct ... (Ag Excellence Alliance, sub. 19, p. 1)

... the principles of the FDF are well aligned with the coal face and community embedded practice that regional boards have undertaken for decades. (Name withheld, sub. 34, p. 1)

However, it is not clear how the Department draws upon these principles when making funding decisions – there is no explanation in the Funding Plan. Further, the principles lack clarity and in some cases are ambiguous. The wording in the Funding Plan implies the principles should apply to individual programs and grants, yet some are more applicable to the Fund as a whole (for example, ‘support a range of activities or projects at a mixture of levels, such as the farm, regional or national level’). Table 3.1 provides an overview of the Commission’s assessment of the principles.

⁵ For example: Ag Excellence Alliance (sub. 19, p. 1); Agforce Queensland (sub. 45, p. 1); GGA and SW WA Hub (sub. 30, p. 2); GrainGrowers (sub. 12, p. 1); Hydro Tasmania (sub. 40, p. 3); Livestock SA (sub. 26, p. 2); Lu Hogan and Professor Lewis Kahn (sub. 5, p. 1); NACC NRM (sub. 21, p. 2); NFF (sub. 17, p. 8); NRM Regions Australia (sub. 51, p. 4); NRM WA (sub. 13, p. 2); NRMQR (sub. 23, p. 2); PIRSA (sub. 53, p. 3); Queensland DAF (sub. 54, p. 2); Riverine Plains (sub. 29, p. 3); TAS Farm Innovation Hub (sub. 39, p. 1); TMI (sub. 6, p. 1); TNQ Hub (sub. 33, p. 1); University of Melbourne (sub. 48, p. 1); Vic Drought & Innovation Hub (sub. 28, p. 3).

Table 3.1 – Assessment of the funding principles

Principle	Assessment
1) be consistent with the Vision, Aim, Strategic Priorities and Objectives outlined in this Plan	• Agree with principle.
2) ensure only projects and activities that enhance the public good by building drought resilience are funded. Projects and activities must deliver significant benefits that can be accessed or shared by many (rather than be captured solely by individual businesses or industries solely for commercial gain)	<ul style="list-style-type: none"> • As noted in chapter 2, the FDF should only invest in programs where there is a net public benefit. • It appears the principle has not been applied consistently across the Fund. • Words adjusted in proposed principles to simplify.
3) not provide in-drought assistance	• Agree with principle.
4) not duplicate or replace existing Commonwealth, state, territory or local government funding programs, and will aim to improve the coordination or integration of existing Commonwealth Government policies, frameworks and programs where they meet the Fund's purpose	<ul style="list-style-type: none"> • Agree on need to avoid duplication but there is a tension between avoiding duplication and improving coordination and integration. • There are instances where this principle has not been met in practice.
5) be delivered in accordance with Commonwealth guidelines where applicable including the Commonwealth Grants Rules and Guidelines 2017, the Commonwealth Procurement Rules 2019 and the Federal Financial Relations Act 2009	• All non-corporate Commonwealth entities are required to comply with these rules and regulations. The principle is unnecessary.
6) consider the incremental, transitional and transformational opportunities needed to strengthen drought resilience and encourage innovative proposals	<ul style="list-style-type: none"> • Agree with intent but principle is more appropriately applied when considering the mix of FDF programs. • Refer to earlier discussion on transformational change.
7) support a range of activities or projects at a mixture of levels, such as the farm, regional or national level	• Agree with intent but the principle is more appropriately applied when considering the mix of FDF programs.
8) deliver programs through a user-based lens and, where possible, a community-led, co-design, and/or end-user approach	• Agree with principle.
9) ensure eligibility for programs is streamlined and, where possible, minimise the burden of regulation on businesses, community organisations and individuals	• Agree with principle, scope to clarify 'burden of regulation'.
10) recognise the diversity of people, businesses and landscapes involved in agricultural production, including Indigenous landholders	• Not clear how this principle could be applied at an individual program level. Would be more appropriately considered in the context of the mix of FDF programs.
11) where appropriate, use or collaborate with existing community networks, Indigenous organisations and communities, natural resource management organisations, industry and farmer groups	• Agree with principle and there is evidence the FDF has brought organisations together, noting there are also instances where collaboration could be improved.
12) use a structured and, where appropriate, contestable process to identify the best value and highest quality ideas, talent and projects	• Agree with principle; suggest incorporating transparency. Would be more appropriately applied when considering the mix of FDF programs.

Principle	Assessment
13) as far as practicable, require co-investment to maximise program outcomes	<ul style="list-style-type: none"> • Agree with principle as co-investment could improve outcomes where there are private benefits (noting it may not be appropriate in all cases).
14) consider proposals favourably that have enduring outcomes and avoid creating barriers to change or adaptation	<ul style="list-style-type: none"> • Agree but suggest a reframing to require all programs to meet this principle.
15) consider potential qualitative and quantitative outcomes and expected public benefits as part of the assessment process for all programs and projects – not necessarily in monetary terms – and articulate why the funding is needed to achieve these benefits	<ul style="list-style-type: none"> • Agree with principle but suggest streamlining to make it clear that this should apply when assessing and prioritising the mix of programs under the FDF.
16) ensure there are no ongoing operational or maintenance dependencies from the Fund when considering proposals for new or existing infrastructure	<ul style="list-style-type: none"> • Clarify principle to allow for ongoing funding where it can be demonstrated there is a net benefit. • Some inquiry participants raised concerns that this principle limits longer-term funding for programs like the Hubs and CSA.
17) ensure that all new knowledge is shared and freely made available in the public domain.	<ul style="list-style-type: none"> • Agree with principle though it does not appear it is being met. There are additional considerations with how Indigenous knowledge should be managed (chapter 6).

The Commission is proposing amendments to the Funding Principles for the next Funding Plan.

First, changes could be made to the wording of the principles, so they are more intuitive. This includes clarifying which principles apply to the Fund as a whole and which apply to individual programs.

- The fund-wide principles guide decision-making about the mix of programs and approval processes. These principles signal that the FDF will fund a mix of programs that will provide the greatest benefit for the community.
- The remaining principles apply to each FDF program, both at the program planning stage and on an ongoing basis.

To provide additional context for assessing programs, the Commission is proposing the program-level principles be split according to three key considerations.

- Strategic fit – these principles require programs to meet the overall goals, objectives and approach of the Fund.
- Societal impact – these principles seek to ensure the Fund programs provide the greatest possible benefit for the community over the long term.
- Delivery – these principles mandate certain characteristics for program delivery.

The Commission is suggesting some of the principles from the first Funding Plan could be combined and clarified. One principle could be removed: that programs are delivered in accordance with Commonwealth guidelines. This principle is superfluous.

The Commission is proposing a new principle: that programs undertake monitoring and evaluation to ensure a continual process of learning and improvement. As discussed in chapter 5, MEL must be a key priority for the Fund in the next Funding Plan. A new principle should help ensure MEL is given greater prominence.

Finally, the Department should provide further detail in the Funding Plan on the purpose and use of the principles. This could include information on how the principles are applied when making funding decisions, the intended audience for the principles and the implications for applicants for funding under FDF programs. It may be helpful to provide some case studies on this latter point.

Figure 3.2 outlines the Commission’s proposal for the principles in the next Funding Plan.

Figure 3.2 – The Commission’s proposed funding principles for the next Funding Plan^a

Fund-wide principles		
These principles support decision-making around the mix of programs and the processes for approving them.		
The Government should ...		
(6, 7, 10) facilitate a mix of programs that, together, create the greatest public benefit, taking into account: <ul style="list-style-type: none"> • a mixture of levels (farm/regional/national) • the type of change required (incremental, transitional and transformational) • the diversity of people, businesses and landscapes involved in agricultural production, including First Nations organisations and communities 		
(12, 15) take a transparent, structured, and contestable process to prioritising projects, based on qualitative and quantitative evidence	(9) streamline eligibility processes and minimise compliance costs on businesses, community organisations and individuals	
Individual program principles		
Programs funded by the Future Drought Fund must be consistent with these principles.		
Strategic fit The program ...	Societal impact The program ...	Delivery The program ...
(1) is consistent with the Vision, Aim, Strategic Priorities and Objectives outlined in the Future Drought Fund Plan	(2) delivers a net public benefit	(11) collaborates and partners with existing community networks, First Nations organisations and communities, natural resource management organisations, industry and farmer groups
(3) is not in-drought assistance	(4) avoids duplicating existing programs, or where there are overlaps, builds upon existing programs	
(16) does not have ongoing operational or maintenance dependencies unless it can demonstrate these will produce an ongoing net benefit	(14) has enduring long-term outcomes and reduces barriers to change or adaptation	(17) ensures that new knowledge is shared, accessible and freely made available in the public domain
(8) adopts a user-based lens and, where possible, a community led, co-design, and/or end-user approach		(new) undertakes monitoring and evaluation to ensure a continual process of learning and improvement
(13) requires private co-investment, as far as practicable, where projects are expected to deliver private benefits		

a. The numbers in brackets refer to the principle number from the FDF’s first Funding Plan.



Recommendation 3.2

Actions that could improve the effectiveness of the Fund

The Department of Agriculture, Fisheries and Forestry should:

- update the aim in the Drought Resilience Funding Plan to:

The aim of the Future Drought Fund is to build drought and climate change resilience in Australia's agricultural sector, the agricultural landscape, and communities. The Fund will invest in activities with long-lasting benefits, that would not otherwise occur and that will lead to the Australian community being better off overall.

- map Australian, state and territory government programs for agriculture, land management, drought resilience and climate change resilience, to ensure funding from the Future Drought Fund (FDF) is well targeted and not duplicating other programs
- refine the FDF's theory of change and develop an investment plan to guide decisions about the mix, funding and delivery of FDF programs
- clarify the purpose and use of the FDF's funding principles.

3.3 More explicit recognition of climate change

The terms of reference ask the Commission to 'consider the merits of broadening the scope of the Fund to support resilience to climate change for the agriculture sector and communities dependent on agriculture'.

The current scope is ambiguous

The scope of the FDF is set by the *Future Drought Fund Act 2019* (Cth) and the Funding Plan. However, there are inconsistencies between the Act and the Funding Plan. In the Act, drought resilience is defined in reference to drought:

- (a) resilience to drought; or
- (b) preparedness for drought; or
- (c) responsiveness to drought; or
- (d) management of exposure to drought; or
- (e) adaptation to the impact of drought; or
- (f) recovery from drought; or
- (g) long-term drought-related sustainability of farms and communities that:
 - (i) have been affected by drought; or
 - (ii) are being affected by drought; or
 - (iii) are at significant risk of being affected by drought

The Funding Plan defines drought resilience with reference to a range of climate conditions, including rainfall seasonality, more closely related to climate change:

... the ability to adapt, reorganise or transform in response to changing temperature, increasing variability and scarcity of rainfall and changed seasonality of rainfall, for improved economic, environmental and social wellbeing. (Drought Resilience Funding Plan 2020 to 2024, p. 3)

Furthermore, the Funding Plan's vision explicitly mentions resilience to the impacts of climate change:

The Fund's vision is an innovative and profitable farming sector, a sustainable natural environment and adaptable rural, regional and remote communities—all with increased resilience to the impacts of drought and climate change. (Drought Resilience Funding Plan 2020 to 2024, p. 5)

These inconsistencies have created ambiguity around whether, and if so what, climate change resilience activities are within the scope of the FDF's programs.

Should the Fund explicitly target climate change resilience?

Most inquiry participants supported broadening the scope of the Fund to climate change resilience, citing a variety of reasons.⁶ Many argued that the FDF already funds activities that assist with adaptation to climate change (for example, Dr Chad Renando, sub. 77, p. 11; NFF, sub. 64, p. 10). The South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 1) said 'many of the priorities and activities of the SA Hub already enhance drought preparedness and climate change resilience'. Lu Hogan and Professor Lewis Kahn (sub. 5, p. 3) noted:

At the UNE hosted Armidale Node of the Hub for SQNNSW we have already moved towards providing solutions to climate change and climate variability not just drought.

In practice, the distinction between preparing for drought and supporting climate change adaptation can be fine. Enhancing on-farm natural capital, for example, can address both risks (NRM WA, sub. 13, p. 4). As well, drought is only one of many climate-related risks for farmers and regional communities (Lu Hogan and Professor Lewis Kahn, sub. 5, pp. 2–3). The Commission stated (PC 2009, p. 167) in its review of government drought support:

... drought is only one of a number of risks faced by farmers. Other climate-related events (for example, unseasonal storms, hail and frost), changes in input costs and changes in output prices are also significant sources of risk. To the extent that management of risk by farmers is impeded by market failures that warrant government action, an approach that encompasses all types of risk is preferable to one that focuses on one particular type, such as drought.

Ensuring the wellbeing and resilience of regional industries and communities will require adaptation to the full spectrum of climate-related impacts. Moreover, climate change is expected to make these events, including drought, more frequent and severe. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) stated (sub. 80, p. 5):

There is emerging evidence that climate change is exacerbating the frequency, duration and intensity of drought and its impacts. Therefore, it is important for drought resilience programs to consider climate change and associated extreme events.

⁶ For example: AFIA, sub. 72, p. 8; ALCA, sub. 16, p. 2; ATSE, sub. 7, pp. 1–2; brief comment 18 and 32; CSIRO, sub. 8, p. 4; Farmers for Climate Action, sub. 65, p. 1; FRRR, sub. 37, p. 12; FSGA, sub. 15, p. 2; GGA and SW WA Hub, sub. 30, p. 5; Hydro Tasmania, sub. 40, p. 3; IWF and CEAT, sub. 25, pp. 5–6; JCU, sub. 83, p. 1; La Trobe University, sub. 35, p. 3; LGAQ, sub. 22, p. 10; Lu Hogan and Professor Lewis Kahn, sub. 5, pp. 2–3 and sub. 62, p. 3; NACC NRM, sub. 21, p. 4; NFF, sub. 64, p. 10; NLN, sub. 18, p. 4; NRM Regions Australia, sub. 51, p. 2; NRM WA, sub. 13, p. 4; NRMQR, sub. 23, p. 4; Queensland DAF, sub. 54, p. 6 and sub. 90, p. 1; Rangelands NRM Coordinating Group, sub. 50, p. 7; Riverine Plains, sub. 29, pp. 7; SFS, sub. 43, p. 6; Southern NSW Innovation Hub, sub. 56, p. 5 and sub. 74, p. 3; TAS Farm Innovation Hub, sub. 39, p. 2 and sub. 89, p. 1; Tasmanian Government, sub. 52, p. 8; TMI, sub. 6, p. 3 and sub. 57, p. 1; TNQ Hub, sub. 33, pp. 2–3; University of Adelaide, sub. 32, p. 3; University of Melbourne, sub. 48, p. 1; Vic Drought & Innovation Hub, sub. 28, p. 4 and sub. 85, p. 3; Victorian DEECA, sub. 55, p. 4.

Including climate change resilience will also foster a more holistic approach to building resilience (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 3; Victorian Drought & Innovation Hub, sub. 85, p. 3). If the Fund maintains its priority on drought over other risks, there is a possibility that less valuable drought-specific proposals may be funded instead of other activities that may have better resilience outcomes. The Mulloon Institute (sub. 6, p. 3) said of including climate change:

This would potentially drive a more holistic view of farm management and enable a focus on landscape scale repair (including landscape rehydration) that addresses both drought resilience and climate change.

Preparing for an event (such as the next drought) may promote a different outlook – and different responses – than adjusting to long-term trends that include increased variability and heightened climate extremes. La Trobe University (sub. 35, p. 3) said, ‘the current focus on “Drought” constrains consideration of the broader climate exposure risk of the sector’. Businesses and communities are trying to build resilience to all future risks, not just drought. Explicit recognition of climate change resilience would shift the focus of the FDF from preparing for a singular event to adapting to the ‘new normal’. At the community level, people are already considering drought within broader discussions around climate change (FRRR, sub. 37, p. 12; Tasmanian Government, sub. 52, p. 2).

Recognising climate change resilience would also acknowledge the varied impacts climate variability has on communities, including that for many communities the term ‘drought’ does not resonate (for example, multiple dry years are not considered ‘drought’ but rather a new normal), and potentially enhance community engagement with the FDF.

Focusing solely on drought amidst so much Climate Variability weakens the relevance and effectiveness of our communications and programs when we are not addressing a current climate problem. (FSGA, sub. 15, p. 2)

Explicitly recognising climate change resilience could also improve Aboriginal and Torres Strait Islander participation in the Fund (La Trobe University, sub. 35, p. 4; NRM Regions Australia, sub. 51, p. 7). The ‘drought’ centred narratives and language in the FDF have been raised as a barrier to participation (RECoE, sub. 38, p. 8).

This could benefit Aboriginal and Torres Strait Islander communities and the wider community, if an increased alignment enables Indigenous knowledge sharing and partnerships. As noted in the recent *National Statement on Climate Change and Agriculture*:

[Aboriginal and Torres Strait Islander people’s] knowledge is vital for tackling climate change. First Nations peoples have a significant role to play in furthering Australia’s resilience to climate change – as producers and by conducting activities such as fire management, ranger programs, biosecurity surveillance and biodiversity restoration. Australian agriculture has an opportunity to continue to partner constructively and learn from the traditional knowledge and expertise of First Nations peoples and ensure they have a leading voice in agriculture’s response to climate change. (Australian Government 2023, p. 6)

While most inquiry participants support explicitly recognising building climate change resilience as in scope, participants also raised important issues. Some were concerned that recognising climate change resilience could lead to less focus on drought resilience and dilute drought funding (AgForce Queensland, sub. 45, p. 4 and sub. 66, p. 2; GGA and SW WA Hub, sub. 86, p. 4; NFF, sub. 64, p. 10). GrainGrowers (sub. 12, p. 2) said:

GrainGrowers supports expanding the funding principles to support resilience to climate change more broadly, on the proviso this expansion is facilitated by additional funding on top of the

current allocation. It would be [detrimental] if current funding was split between several purposes and the value to industry diminished as a result.

Inquiry participants noted the risks that change could lead to confusion about the Fund's scope and duplication with climate change programs (FDF Consultative Committee, sub. 69, p. 3; FRRR, sub. 70, p. 4). The Grower Group Alliance and South-West WA Drought Resilience Adoption and Innovation Hub (sub. 86, p. 4) said:

A shift in scope from drought to climate should be considered in conjunction with the number of state and federal programs that are considering climate change resilience. A duplication in effort may result if FDF overlays environmental outcomes.

The Rural Economies Centre of Excellence (sub. 38, p. 7) highlighted the fact that drought is a well understood risk and a natural starting point for engaging communities:

Our experience in working with communities across Queensland would suggest that "drought" has provided an excellent focal point for community engagement and interaction. Drought-affected communities understand what they are being asked about, what the key issues/problems are and are keen to articulate a wide variety of proposed resilience actions. For many people in Australia's rural and regional areas, drought is not a concept, it is visceral and part of their lived experience.

Some participants also suggested that drought requires a dedicated fund as it differs to other climate change risks such as flooding or increased storm activity.

Overall, participants have raised valid concerns which should be considered in the design and operation of the Funding Plan and FDF programs.

What would 'more explicit recognition' mean in practice?

Explicitly recognising building climate change resilience is not expected to lead to substantial changes in the activities funded through the FDF. Many activities that contribute to drought resilience also build climate change resilience, are already within scope and being funded by the FDF. Most of these activities can be classified as building general resilience: they assist farmers and communities in responding to a broad array of risks and build the capacity to deal with uncertainty and complexity while responding in flexible and innovative ways. Thus, making them applicable to broader climate risks. These activities include:

- collaborative planning that brings together stakeholders in a region to identify and manage regional risks and opportunities (OECD 2020). The Regional Drought Resilience Planning program already includes these activities
- building natural, social and human capital (Rickards and Howden 2012). The FDF aims to build natural, social and human capital through its programs, including the NRM-related programs, Better Prepared Communities and the FBR program
- providing and diffusing climate-related information (Northern Hub, sub. 84, p. 2). The FDF funds the provision of climate information through the Better Climate Information programs.

However, some activities are targeted at developing specific resilience, or resilience to specific risks such as drought (Folke et al. 2010). In these instances, such as research, development and extension activities, the Fund should allow for projects that respond to regional priorities.

The clarification in scope will allow for programs, such as the Long-term Trials of Drought Resilient Farming Practices Grants and Drought Resilience Innovation Grants, to target practices relevant to regions facing climate risks in addition to drought. Moreover, it should provide clarity that, where appropriate, relevant programs can consider a broader range of climatic risks. For example, farmers participating in the Farm

Business Resilience program could develop plans that consider all climatic risks not just drought. Similarly, communities that develop Regional Drought Resilience Plans could consider a broader perspective so that regional activities to build drought resilience also seek to build resilience for other climate extremes or natural disasters.

Clarifying the scope

On balance, the Commission's view is that the Fund's scope should be clarified to explicitly recognise *building drought and climate change resilience*. However, the Commission does not expect, or recommend, that explicitly recognising climate change resilience as within scope would result in new climate change specific programs. Drought should remain the focus of the FDF under the next Funding Plan. This was recommended by a number of inquiry participants (CSIRO, sub. 80, p. 5; Dr Chad Renando, sub. 77, p. 12; GGA and SW WA Hub, sub. 86, p. 4; NFF, sub. 64, p. 10). The Future Drought Fund Consultative Committee (sub. 69, pp. 3–4) noted:

While it is important that the FDF is engaged with other bodies on the broader issues of climate resilience, including sharing learnings, it is essential that the drought focus of FDF is not lost. In the absence of such significant initiatives focussed on drought, we note the current outlook with drier conditions approaching and, are concerned that there is still much more to be done to boost drought preparedness.

Nevertheless, it is important that the recognition of climate change is well managed to minimise confusion and duplication. The Department could take a staged approach.

First, the next Funding Plan should be updated to reflect the clarified scope. The current Funding Plan's vision already includes climate change resilience and many of the possible activities listed that the Fund can undertake also apply to building climate change resilience. Other than updating the aim (recommendation 3.2), substantial changes are unlikely to be required.

Second, both drought and climate change resilience need to be considered when undertaking activities to improve the Fund's governance, design and delivery, including when:

- mapping relevant government programs (recommendation 3.2)
- developing the investment plan (recommendation 3.2)
- refining the theory of change (recommendation 3.2)
- developing a knowledge strategy (recommendation 3.4)
- strengthening the MEL Framework (recommendation 5.1).

Once these steps have been taken, the Department could consider what, if any, change could be made to the design and delivery of programs.

The Department should also decide what climate change activities would not be within scope (Dr Chad Renando, sub. 77, p. 11; FRRR, sub. 70, p. 4). As with drought resilience, the Fund could rule out investing in climate change resilience activities already being undertaken by other programs, and funded activities need to remain focused on agriculture, agricultural landscapes and communities dependent on agriculture. This would suggest climate mitigation, biosecurity, water infrastructure and disaster preparation and response activities should be excluded from the scope of the FDF (box 3.3).

Box 3.3 – Activities that could be deemed out of scope

Climate mitigation

The Australian Government already funds climate mitigation activities through entities such as the Emissions Reduction Fund, the Renewable Energy Target scheme, the Australian Renewable Energy Agency and the Clean Energy Finance Corporation. In the case of the Emissions Reduction Fund, components of the initiative specifically target agriculture and land management through programs for carbon sequestration and emission avoidance.

Biosecurity

Under the 2023-24 Budget, the Australian Government has committed to over \$700 million annually in biosecurity funding to 2027-28 through other government programs (DAFF 2023p).

Water infrastructure

The Australian Government invests significantly in public water infrastructure projects through other measures: the National Water Grid Fund is providing \$3.5 billion for water infrastructure over 10 years, and the \$5 billion Northern Australia Infrastructure Facility also provides concessional loans for water projects (PC 2021).

Disaster preparation and response

Through the Disaster Recovery Funding Arrangement, the Australian Government provides financial assistance to state and territory governments for expenditure on relief and recovery measures for natural disasters (*Disaster Recovery Funding Arrangements 2018*). The Australian Government's Disaster Ready Fund also provides up to \$1 billion over five years from 2023-24 to support disaster prevention projects (NEMA 2023).



Recommendation 3.3

Clarify scope to include climate change resilience

While drought resilience should remain the primary goal of the Future Drought Fund (FDF), the Department of Agriculture, Fisheries and Forestry should clarify the scope of the FDF to explicitly recognise building resilience to drought and climate change. To reduce the risk of funding climate change-related activities supported by other government programs, the FDF could include a non-exhaustive list of activities ineligible for FDF funding.

3.4 Improving opportunities for knowledge sharing

As discussed in chapter 2, knowledge sharing is an important part of building drought resilience. The FDF funds many activities that generate new knowledge. However, the full value of new knowledge is not realised if knowledge is not shared, understood and used.

The generation and transfer of knowledge is core to the success of the Fund in building drought resilience. It strengthens the rationale for many of the FDF programs, as generating knowledge to support drought

resilience can have spillover benefits for the broader community. Improving knowledge sharing across the FDF can thus enhance the appropriateness, effectiveness and efficiency of FDF programs.

Developing a knowledge strategy

The FDF is producing a wealth of information and knowledge, including hundreds of on-farm trial and project results, case studies, research and development outcomes, MEL data and reports, and program evaluations and learnings. However, there appears to be no strategy or plan in place to better manage how all this information and knowledge is generated, managed and shared, which has contributed to FDF outputs being difficult to find and interpret, and not being used to build drought resilience (chapter 2).

The mid-term review by Grosvenor (2023, p. 47) found knowledge sharing to support adoption needs to be an ongoing focus and noted ‘a clear strategy and mechanisms for identifying, collating, sharing (and achieving use) of the different types of knowledge products generated by the FDF would enhance the delivery of the Funding Plan’.

The Department should develop a knowledge strategy for the Fund to better manage the generation, dissemination and uptake of FDF information and knowledge. It would also provide greater transparency over the Fund’s activities.

Features of a knowledge strategy

The aim of the strategy would be to better support FDF participants to learn from and use FDF information and knowledge to improve outcomes. The strategy could:

- identify measures to improve the generation, dissemination and uptake of information and knowledge across the Fund in an integrated way, tailored to the preferences of end users
- define the roles and responsibilities of different parties across the Fund in generating, disseminating and promoting uptake of FDF knowledge, including DAFF, delivery partners, participants, Hubs and Hub knowledge brokers
- outline the best model for implementing a knowledge management system (discussed below)
- contain appropriate protections for Indigenous Cultural and Intellectual Property, including by integrating protocols established within the Fund for Indigenous knowledge sharing (chapter 6).

Knowledge generation, dissemination and uptake needs to be considered at the program level given that programs focus on different activities with different outputs and intended users. How information and knowledge is best communicated will vary. DAFF could consider how knowledge generated from programs might be affected by program reporting requirements and the MEL Framework or plans.

Improving the uptake of knowledge requires consideration of how farmers prefer to learn. In general, leveraging social capital is key. Farmers’ decision making is heavily influenced by their social context as many farmers will seek guidance through their social networks, as well as trusted advisors and intermediaries (Nous Group 2022; Pannell et al. 2006; Sobels, Curtis and Lockie 2001). Participants also highlighted the importance of local networks and trusted sources in disseminating knowledge to farmers (for example, FDF Consultative Committee, sub. 69, p. 1; NFF, sub. 64, p. 12; SQNNSW Hub, sub. 24, p. 5).

In identifying potential mechanisms to improve the generation, dissemination and uptake of information and knowledge, Grosvenor (2023, p. 47) suggested ‘identify[ing] pre-existing mechanisms that can be used, rather than developing new mechanisms’, and also noted ‘the identification and use of consistent knowledge and resource sharing mechanisms across FDF programs would enhance the achievement of outcomes’.

Participants identified various measures that could be considered under the strategy, including:

- supporting project teams to meet face-to-face (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 5)
- communicating 'human impact case studies' (FDF Consultative Committee, sub. 69, p. 1)
- improving the functions of the Hub Knowledge Brokers (Riverine Plains, sub. 29, p. 5)
- leveraging existing trusted networks to disseminate FDF knowledge (FDF Consultative Committee, sub. 69, p. 1).

While the main focus of the strategy should be the knowledge created through the FDF, there is also value in considering ways the FDF could support the dissemination and uptake of drought and climate change resilience knowledge more broadly.

Implementing a knowledge management system

Given the wealth of information and knowledge to be generated through the Fund's activities, the large number of activities and projects under the Fund, and difficulties in finding FDF information and knowledge, there is a need to better manage and share FDF information and knowledge.

There are many different models or levels of a knowledge management system that could be considered. The Department should decide the best model to improve the accessibility and sharing of FDF information and knowledge, given the needs of targeted users and likely costs and benefits. This includes considering:

- what information and knowledge is shared – for example, the system could range from sharing only key FDF information and knowledge on relevant websites – such as DAFF, Hubs, and state and territory government websites – to a more complex, integrated platform with relevant FDF and other drought and climate change resilience information and knowledge
- where information and knowledge are best shared – information and knowledge does not necessarily need to be centralised and can be shared across different websites or platforms as long as it is readily accessible to targeted users in an appropriate place, such as outcomes from Hub activities being shared on the respective Hubs' websites
- leveraging existing websites or platforms – it does not necessarily need to be a new website or platform and could leverage an existing trusted platform (GGA and SW WA Hub, sub. 86, p. 7; Nous Group 2022; Vic Drought & Innovation Hub, sub. 85, p. 4)
- phased implementation – the extent of information shared, and other features, could be expanded over time.

The chosen model may complement other initiatives in the strategy to improve the dissemination and uptake of knowledge. If a more complex, integrated system is considered appropriate, the FDF could potentially provide funding to initially establish the system with ongoing funding to maintain the system under the National Enabling Activities program.

Some participants supported establishing an FDF knowledge management system (for example, FRRR, sub. 70, p. 6; GGA and SW WA Hub, sub. 86, p. 7; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 5; TAS Farm Innovation Hub, sub. 89, p. 1; Vic Drought & Innovation Hub, sub. 85, p. 4). Other participants raised concerns that a knowledge management system would not be effective, particularly if it targeted farmers (FDF Consultative Committee, sub. 69, p. 1; NFF, sub. 64, p. 12).

The Commission agrees the system should not necessarily target farmers. The platform would be accessible to all for free, but the target end users are likely to be advisors, consultants and other intermediaries – such as RDCs, grower groups and Hubs – rather than farmers themselves.

To the extent the system contains other information and knowledge such as learnings from program delivery and details of FDF projects, the target users would also include delivery partners and FDF participants more broadly. Different systems could target different users. For example, there could be a separate central online MEL platform targeted towards delivery partners to improve data sharing (chapter 5).

The Department (pers. comm., 28 July 2023) has indicated they are focusing on other measures to disseminate information rather than through developing a knowledge management system.

The department has chosen to focus on immediate next steps ... specifically to progress in-house data management and to develop a targeted, tailored communications strategy to disseminate drought resilience information to better utilise active channels of engagement for example trusted peers and local advisors.

The communications strategy is an appropriate measure and could be developed and linked with the knowledge strategy given the intent to better leverage trusted peers and local advisors. However, the Commission considers there is still a need to improve the accessibility of FDF information and knowledge.

The Commission acknowledges other concerns with implementing a knowledge management system, primarily for more comprehensive models that contain extensive drought and climate change resilience knowledge beyond the Fund. Implementing such a system could be complex and costly. It also risks duplicating existing systems in a crowded space (Nous Group 2022). These concerns need to be considered in assessing the best model and could be partially addressed by choosing an appropriate model or scope for the system.



Recommendation 3.4 **Developing a knowledge strategy**

The Department of Agriculture, Fisheries and Forestry should develop a knowledge strategy that:

- identifies measures to improve the generation, dissemination and uptake of knowledge across the Future Drought Fund, tailored to the preferences of end users
- defines the roles and responsibilities of the many parties across the Fund that create, share and/or use knowledge
- outlines the best model for implementing a knowledge management system.

4. Are the governance arrangements fit for purpose?

Key points

- * **The Future Drought Fund's (FDF) governance is appropriate, given the size of the Fund and likely program risks.**
 - Inquiry participants have been generally positive about the performance of the Department of Agriculture, Fisheries and Forestry, despite the issues created by the rush to roll out programs.
 - The FDF Consultative Committee is a valuable independent adviser on the direction and priorities of the Fund.
- * **Three modest improvements could be made to the FDF's governance.**
 - The Regional Investment Corporation's legislated role is unlikely to be leading to better outcomes and imposes additional time and administration costs. This role should be removed.
 - There would be advantages in maintaining some continuity in the Consultative Committee membership over time. Appointments to the committee could be staggered to ensure expertise is retained at critical junctions, such as the final stage of developing a new Drought Resilience Funding Plan.
 - The legislated timing of future Productivity Commission reviews should be brought forward to allow sufficient time for reviews to be considered before new Funding Plans are completed. The Commission suggests reviews should be provided to government at least eight months before the end of a Funding Plan, and the terms of reference should be provided to the Commission twelve months in advance of the reporting date.

Good governance is essential for a successful Future Drought Fund (FDF), helping to ensure:

- programs achieve their intended outcomes
- organisations delivering the program are accountable
- public funds are invested in activities that deliver net public benefits
- coordination and integration of services
- monitoring, evaluation and learning (MEL) supports continuous improvement of programs.

4.1 Future Drought Fund governance is broadly appropriate

The FDF's governance is appropriate, given the size of the Fund and likely risks (box 4.1).

- The *Future Drought Fund Act 2019* (Cth) sets out roles and responsibilities.
- The *Drought Resilience Funding Plan 2020 to 2024* sets the broad boundaries and criteria for funding support, including enhancing the public good.

- The Drought Minister (currently the Minister for Agriculture, Fisheries and Forestry) is responsible for the FDF and is accountable to Parliament and the community.
- The Department of Agriculture, Fisheries and Forestry (DAFF) is the appropriate department to administer the FDF.
- The FDF has a Consultative Committee of experts that advises the Minister (and the Department).
- The MEL Framework outlines the rationale, scope and approach for monitoring and evaluating the FDF (chapter 5).
- An independent review of Part 3 of the FDF Act (this review) is legislated before a new Funding Plan is introduced.

However, there are some concerns about how these arrangements are working in practice. As discussed in chapters 2 and 3, the Funding Plan does not provide adequate strategic guidance and the prioritisation of activities and funding principles could be improved. In addition, the MEL Framework has limitations (chapter 5). Other issues are discussed below.

Box 4.1 – Future Drought Fund governance, roles and responsibilities

Future Drought Fund Act 2019 (Cth)

The FDF Act is the key piece of legislation governing the FDF. It:

- establishes the FDF and Future Drought Fund Special Account (Part 2)
- sets out how the money in the FDF is to be invested (Part 4) and reported on (Part 5)
- outlines rules and responsibilities about how arrangements and grants are made (Part 3).

Part 3 is the focus of this inquiry. It covers:

- arrangements and grants relating to drought resilience (Division 2)
- advice to the Minister (Division 3)
- the development and review of the Drought Resilience Funding Plan (Division 4)
- the establishment and operation of the Agriculture Future Drought Resilience Special Account (Division 5)
- the channelling of state and territory grants through the COAG Reform Fund (Division 5A)
- the establishment and operation of the FDF Consultative Committee (Division 6).

Drought Minister

The Drought Minister (currently the Minister for Agriculture, Fisheries and Forestry) is responsible for the FDF. The Minister is required to create Drought Resilience Funding Plans, make arrangements and grants and enter into agreements under the Act. The Minister can delegate some of these responsibilities to departmental staff.

The Department

The Secretary of the Agriculture Department (currently the Department of Agriculture, Fisheries and Forestry) is responsible for the Agriculture Future Drought Resilience Special Account, the account used to distribute money to programs. The Agriculture Department is responsible for the administration of the FDF, including the design and delivery of programs.

Box 4.1 – Future Drought Fund governance, roles and responsibilities

Future Drought Fund Consultative Committee

The FDF Consultative Committee advises the Drought Minister on drafts of Funding Plans and on the proposed design of programs and grants. The Consultative Committee has five members (including a chair) who are appointed by the Drought Minister. Consultative Committee members must have expertise or experience in relevant areas and there should be, as far as practicable, a balance of genders, knowledge, skills, and regions.

Regional Investment Corporation

The Regional Investment Corporation (RIC) is an Australian Government-backed loan provider for farmers and farm-related small businesses. The Drought Minister is required under the Act to seek advice from the RIC's board before making an arrangement or grant or entering an agreement under the FDF. Members of the RIC board are required to report any conflicts of interest.

Productivity Commission

The Act requires the Productivity Commission to assess the effectiveness of Part 3 of the Act and the Funding Plan. The report is to be submitted to the Australian Government no later than five months before the end of each four-year Funding Plan.

Delivery Partners

Although delivery partners are not mentioned in the Act, they have been relied on extensively to deliver and monitor FDF programs. These partners include universities, grower groups, the Foundation for Rural & Regional Renewal, the Australian Rural Leadership Foundation, and Australian, state and territory government bodies. More detail on the administration of each program is in chapter 7.

Drought Resilience Funding Plan

Drought Resilience Funding Plans are legislative instruments made by the Drought Minister that are in effect for up to four years. The Funding Plan sets out the approach to arrangements and grants at a strategic level, rather than specifying what programs should be made or who should be involved. All FDF programs must comply with the Funding Plan. The current Funding Plan is in effect from 2020 to 2024.

Monitoring, Evaluation and Learning Framework

The FDF has a Monitoring, Evaluation and Learning (MEL) Framework for accountability and continual improvement. The MEL Framework outlines the approach to evaluating the FDF as a whole, demonstrating the progress and outcomes of FDF programs, and supporting learning across the FDF.

Source: DAFF (2022b); DAWE (2020c); Drought Resilience Funding Plan 2020 to 2024; Future Drought Fund Act 2019 (Cth); RIC (2023).

4.2 The Regional Investment Corporation Board's role should be removed

The Drought Minister must seek advice from the Regional Investment Corporation (RIC) Board before making an arrangement or grant or entering into an agreement. When giving advice, the RIC Board must comply with the Funding Plan (box 4.1; Future Drought Fund Act 2019 (Cth), s. 29).

The RIC is an Australian Government-backed specialist finance lender that provides loans to farmers and farm-related small businesses (box 4.1). RIC Board members are appointed by the Minister for Agriculture and the Minister for Finance (Regional Investment Corporation Act 2018 (Cth), s. 17).

The RIC Board is intended to be an independent technical adviser. Although the Board's advice is not binding, it is a check on whether funds are being used appropriately, and therefore may strengthen public confidence in the FDF.

However, this requirement appears to be falling short of that rationale. The Independent Review of the RIC stated:

The original rationale for this advisory role, in terms of seeking to have suitable governance arrangements and transparency around the expenditure of the Fund, remains relevant and appropriate. However, in practice, the role is at best somewhat awkward and at worse problematic. (Tune 2021, p. 34)

The RIC Board's advice is timed to be a final check of program design. In practice, this advice is not delivered at a point where there is scope to significantly influence program design. In all cases, the RIC Board has found that the arrangements and grants are not inconsistent with the Funding Plan. In one case, the RIC Board did request more information before deciding. It is doubtful that the process is adding value given the additional time and costs.

Members of the RIC Board are required to have qualifications, skills or experience in one of: agribusiness and the financial viability of businesses within the agricultural sector; banking and finance; water infrastructure planning and financing; issues concerning rural industries and communities; economics; financial accounting or auditing; government funding programs or bodies; law; drought resilience; and any programs prescribed by the rules in subsection 8(5) of the RIC Act (Regional Investment Corporation Act 2018 (Cth), s. 17). While this means the Board has significant expertise in areas relevant to the FDF, it also means they are often involved in FDF-related activities. In most cases, at least one board member has had to abstain from voting due to conflicts of interest (RIC, sub. 47, p. i). There are also significant overlaps between the requirements for RIC Board membership and the Consultative Committee, bringing into question the value the RIC Board can add.

This role also imposes costs on the RIC Board and staff as well as additional costs to the Department. These resources could be put to better use.

If the RIC Board continues to be involved in the FDF, changes should be made to enhance the value of its advice. One option is requiring earlier consultation between the Department and the Board, giving the Board more time and access to information to form their advice. However, the Consultative Committee already plays this role.

Another option is to remove the requirement to consult with the RIC Board from the Act. The RIC said in its submission that it could contribute to the FDF in non-legislated ways, including:

- RIC loans can help facilitate improvements supported by the FDF
- RIC data and insights can help inform FDF programs and activities (RIC, sub. 47, p. ii).

The role of the RIC Board should be removed from the FDF Act. The Independent Review of the RIC also recommended this change (Tune 2021). The Australian Government rejected this recommendation on the basis that the Board's role is still relevant and increases public confidence (Australian Government 2021a, p. 3). However, the Productivity Commission has not heard evidence that there is a lack of public confidence in the administration of the FDF or that the involvement of the RIC Board is seen as a safeguard.



Recommendation 4.1

The role of the Regional Investment Corporation Board should be removed

The Australian Government should amend the *Future Drought Fund Act 2019* (Cth) to remove the Regional Investment Corporation Board's legislated role in the Future Drought Fund.

4.3 The timing of the Productivity Commission review should be amended

The Productivity Commission is required to review Part 3 of the FDF Act during the life of each Funding Plan. The Australian Government must request the review begin before the end of the third year of the Funding Plan and the final report must be provided to the Australian Government at least five months before the end of the four-year Funding Plan (*Future Drought Fund Act 2019* (Cth), s. 32A).

The findings and recommendations from the review are intended to inform the design of the next Funding Plan. However, the timing of the review could diminish its value and unnecessarily compress the time for all the steps required to establish a new Funding Plan. As DAFF (sub. 42, p. 11) advised:

The sequencing of these requirements has proven problematic, and this may impact the ability to meaningfully adopt findings from the Productivity Commission's Inquiry into forward planning processes. For example, immediately following the delivery of the Productivity Commission's final report, a new Consultative Committee will be appointed, public consultation on the new draft Funding Plan will occur, and then it will be finalised as a legislative instrument – due to the requirements of the FDF Act, this sequence of activities must be completed within a 5-month period.

Shifting the timing of the review earlier would allow more time for public consultation after release of the Commission's report and detailed planning for the next Funding Plan. This additional time could be locked in by amending the FDF Act to increase the minimum time between submission of the final report to government and the end of the Funding Plan from five to at least eight months. The Commission should receive the review terms of reference at least 12 months before the final report is due to Government.

The Australian Government could also consider removing the requirement for the review to be an *inquiry* from the Act. This would allow the Government to ask the Commission to undertake a *study*. The Australian Government is required to table and release the final report of an inquiry within 25 sitting days of receiving the report (*Productivity Commission Act 1998* (Cth), s. 12), whereas studies are released by the Commission itself shortly after providing the report to Government. Changing the review from an inquiry to a study could allow for the report to be released in a timelier manner. Otherwise, there is little practical difference between an inquiry and a study.

4.4 The role of the Department

DAFF is responsible for designing, delivering, administering and overseeing the performance of the FDF (box 4.1). As discussed in chapter 2, the Department has rolled out many programs quickly. The rush of programs – many short-term – caused problems for the Department, state and territory governments, delivery partners and stakeholders generally.

Despite these problems, the Commission has received positive feedback on the Department from inquiry participants, particularly around engagement. For example, the Tropical North Queensland Drought Resilience Adoption and Innovation Hub (sub. 33, p. 1) stated:

The TNQ Hub's interactions with the Department of Agriculture, Fisheries and Forestry (AFF) Future Drought Funds teams have been very positive and supportive. In particular, AFF visits locally have been very beneficial and have received positive feedback from Hub partners and demonstrate the importance of 'on the ground' engagement.

The Drought Resilience Funding Plan Mid-Term Evaluation found that the Department faced early implementation challenges, due in part to resourcing and capability issues, but that the situation was improving. The Mid-Term Evaluation also noted 'retention, attraction and burnout are likely to continue to pose risks to internal resourcing, consistent with broader market conditions'. It also found problems with internal capability, particularly related to: MEL; data management and analytics; and grants process, procurement and contract management (Grosvenor 2023, p. 39).

The Mid-Term Evaluation recommended the Department undertake several actions to effectively manage resourcing and improve capability, including to 'undertake a detailed review of internal resourcing levels and workload to identify what the right resourcing mix is to effectively deliver the full work program under current and future Funding Plans' (Grosvenor 2023, p. 40). The Department should complete the actions recommended by the Mid-Term Evaluation, where it has not already done so. Other changes canvassed by this inquiry, including longer-term funding for programs, will likely reduce the administrative burden for the Department.

In addition, some issues with the FDF could indicate a need to strengthen the Department's oversight of programs and delivery partners, including the Drought Resilience Adoption and Innovation Hubs and Better Prepared Communities delivery partners. For example, the Commission is recommending the Department develop a statement of expectations for the Hubs program and individual Hubs, to enhance accountability and clarify their role (recommendation 7.4). Problems with the MEL Framework are also limiting the Department's ability to monitor and evaluate FDF outcomes (chapter 5). Improving the MEL Framework should improve oversight, however gaps may remain.

4.5 The role of the Consultative Committee

The Consultative Committee provides independent advice to the Drought Minister on the Funding Plan and whether the proposed design of FDF programs is consistent with the Funding Plan (box 4.1; Future Drought Fund Act 2019 (Cth), s. 36E). Its roles and responsibilities include:

- providing initial advice to the Drought Minister about the draft Funding Plan
- consulting with key stakeholders on the draft Funding Plan
- reconsidering the draft Funding Plan following revisions based on stakeholder feedback and providing final advice on the Funding Plan to the Drought Minister
- providing advice to the Drought Minister about whether the proposed design of programs is consistent with the Funding Plan

- monitoring progress in implementing the Funding Plan
- reconsidering the Funding Plan if replaced outside of the four-year cycle
- considering the Productivity Commission's report when advising on subsequent Funding Plans (DoA nd).

The Consultative Committee's advice on the Funding Plan considers:

- issues, challenges and barriers relevant to enhancing the drought preparedness and resilience of farm businesses and communities, including economic, environmental and social factors
- farmer and community views and perceptions of drought and drought resilience
- the optimal mix of investment options for the Australian Government to enhance the drought preparedness and resilience of farm businesses and communities (DoA nd).

The Consultative Committee is required to have relevant expertise and industry experience. This promotes good quality advice, both in terms of understanding issues and informing user-centred solutions. The Act requires that the Minister appoint members who have a background in at least two of the following:

- drought resilience measures
- climate risk
- the agriculture industry
- rural and regional community leadership and resilience
- rural and regional development
- applied research
- agricultural extension
- economics (Future Drought Fund Act 2019 (Cth), s. 36H).

The Minister must also ensure, as far as practicable:

- there is a balance of gender, knowledge and skills among members
- members represent a balance of different regions across Australia affected, or that could be affected, by drought (Future Drought Fund Act 2019 (Cth), s. 36H).

The Commission considers that the arrangements for the Committee are sound. We have received little evidence about how well the Committee is working in practice, but that evidence indicates the Consultative Committee is a positive influence on program development. Southern Farming Systems (sub. 43, p. 2) said:

The high-level governance arrangements are appropriate and effective, especially the advisory role of the Future Drought Fund Consultative Committee. It is a lean committee with high calibre people on it.

However, similar to the timing of the Commission's review, concerns have been raised about the timing of the appointment of Consultative Committee members and how it aligns with the development of a new Funding Plan. The first Consultative Committee was appointed in September 2019, with all members being appointed for four years (Australian Government 2021b). This means all five spots are up for appointment in September 2023, before a new Funding Plan needs to be developed and in place by mid-February 2024. The Consultative Committee (sub. 69, p. 2) noted the importance of continuity in the membership of the Committee:

Continuity from one Funding Plan to the next is essential to maximise benefits from the Fund. Suggestions to improve continuity include reappointing two members of the Committee for two years ...

Staggering the appointment of Consultative Committee members would provide greater continuity over time. The FDF Act provides sufficient flexibility on Consultative Committee appointments for this to occur. A Consultative Committee member can be appointed for a period of up to four years and can be reappointed, provided both terms are for no longer than eight years in total (Future Drought Fund Act 2019 (Cth), s. 36J).

Reappointing some members and/or varying how long members are appointed for could ensure continuity of membership over time.



Recommendation 4.2
Better timing of key processes

The Future Drought Fund Consultative Committee and the Productivity Commission advise on the development of Drought Resilience Funding Plans. To ensure this advice is robust and timely:

- the terms of Future Drought Fund Consultative Committee members should be staggered to provide continuity at critical stages in the development and early implementation of new Funding Plans
- the *Future Drought Fund Act 2019* (Cth) should be amended to ensure the Productivity Commission reports no later than eight months before the end of the Funding Plan. The terms of reference should be provided to the Commission twelve months in advance of the reporting date.

5. Monitoring, evaluation and learning

Key points

- * Effective monitoring, evaluation and learning (MEL) is essential to enhance the appropriateness, effectiveness, efficiency and impact of the Future Drought Fund (FDF) and its programs, inform development of new programs, demonstrate progress towards drought resilience and support knowledge transfer.
- * Planning and implementation of MEL has been hampered by the hasty roll out of programs and a lack of dedicated resources.
- * The Australian Government should provide funding from the FDF to the Department of Agriculture, Fisheries and Forestry (DAFF) to build capability, including of delivery partners, to implement fit-for-purpose MEL activities.
- * More work is needed to assess the effect of the FDF and the collective outcomes of the programs. DAFF could develop fund-wide performance measures, develop measurement approaches, and assign responsibilities for collecting, reporting and analysing the data.
- * There is scope to improve the program-level MEL approaches. DAFF should develop appropriate program performance indicators to measure progress of programs and outcomes. There is also scope to streamline reporting obligations for delivery partners and grant recipients to help avoid duplication.
- * Learning activities appear to be mostly ad-hoc. The FDF would ultimately have greater impact if DAFF coordinated more deliberate, timely mechanisms to enable and encourage the sharing of knowledge and learnings on a regular basis.

5.1 Why do monitoring, evaluation and learning?

Effective monitoring, evaluation and learning (MEL) is key to improving the effectiveness, efficiency and impact of the Future Drought Fund (FDF) and its programs (box 5.1). Effective MEL:

- helps clarify the intent of the program and the expected outcomes
- underpins the measurement of the FDF's impact

- supports better decision making and program implementation by better understanding the objectives of the program and identifying and resolving issues as they arise
- supports continuous learning by identifying what is going well and what could be done better to help program managers and implementers improve the program's performance over time
- supports program participants to draw on lessons and knowledge from across the Fund, as well as elsewhere
- holds organisations and delivery partners to account for their actions, priorities or programs.

Box 5.1 – What is a monitoring, evaluation and learning system?

MEL encompasses all processes and activities put in place to: track how well a program is progressing towards outcomes; assess whether objectives have been achieved; identify reasons for success or lack of progress; test the assumptions underlying the theory of change; and apply insights generated to improve the design and implementation of activities.

A MEL framework and plan includes:

- key evaluation and monitoring questions
- performance indicators including activity, output, outcome and impact indicators^a
- what data (quantitative and qualitative) is needed, methods and frequency of data collection, and how data will be analysed
- the approach to determining the attribution or contribution of the program, where external initiatives are contributing to the same goals (including establishment of baselines)
- timing of monitoring activities, including approach to longitudinal evaluation or monitoring outcomes after the conclusion of a program or funded activity
- processes to reflect and learn from the implementation, progress and outcomes of the program.

Ideally, a MEL strategy would be developed upfront, during the design phase of the program, and reflect the theory of change. Stakeholders should be engaged to capture and reflect their views and needs in the design of MEL activities.

A MEL system also includes the financial resources and capability required to undertake monitoring and evaluation. The roles of managers and administrators in monitoring and evaluation need to be clearly specified and understood, as well as how delivery partners and participants will be involved in monitoring and evaluation activities.

MEL activities should also be timely and cost effective. The scale of effort and resources involved should reflect the value, impact and risk profile of the program.

a. Activity indicators provide information on who conducted the activity and what they did. Output indicators describe the products, services and deliverables that result from the program activities. Outcome indicators describe the change that occurs as a result of delivering the output. Impact indicators describe progress towards higher-level goals and take a broad perspective. The intended impacts of the FDF in the program logic are agricultural businesses are self-reliant, productive and profitable; agricultural landscapes are functional and sustainable, with healthy natural capital; and agricultural communities are resourceful, adaptable and thriving.

Source: Better Evaluation (nd); Australian Government Department of Finance (2022b); DFAT (2022); Victorian DJSIR (2023).

The FDF's MEL Framework outlines the rationale, scope and approach of monitoring and evaluating the FDF and its activities (DAWE 2020c, p. 1). The MEL Framework defines monitoring, evaluation and learning as:

- monitoring is the continuous and systematic observation of how the programs are implemented, situational change in the problems that they are intended to address, and early indicators of outcomes
- evaluation involves an evidence-based assessment of the appropriateness, effectiveness, efficiency and impact of the programs
- learning is the generation and sharing of insights and information across the FDF to improve program delivery and inform future policy and program design to build drought resilience (DAWE 2020c, p. 2).

5.2 Progress on MEL activities

The MEL Framework outlines processes for the Fund overall and its programs. The FDF MEL processes include ongoing reporting to Ministers and the FDF Consultative Committee, annual reporting, evaluations and the Productivity Commission's legislated review. To inform the reporting and evaluations, the Department of Agriculture, Fisheries and Forestry (DAFF) manages six FDF MEL processes identified in the MEL Framework (table 5.1).

Table 5.1 – FDF MEL processes

Process	Timing	Scope and focus	Progress
Monitor drought resilience context	Periodic	Collect and analyse data against high-level indicators of drought resilience, as it becomes available.	The framework of indicators and methodology has not been finalised. No analysis on the high-level drought resilience indicators has occurred.
Monitor delivery of the Funding Plan	Ongoing	Monitor the delivery of programs, including grant applications, grant management, the delivery of activities and completion of milestones. Monitor stakeholder relationships and feedback, and the extent of coordination, planning and collaboration in support of programs.	Ongoing program reporting and analysis. Some findings and outcomes are published in the annual report (DAFF, pers. comm., 20 January 2023).
Monitor program outcomes	Ongoing	Monitor programs' performance and outcomes to identify and understand the collective outcomes achieved by FDF activities.	Ongoing program reporting. There has been little work done to understand the collective outcomes of the programs.
Evaluate Funding Plan implementation	Mid-point of the Funding Plan (2022)	Conduct a process-focused evaluation, assessing whether the Funding Plan's rationale remains relevant, the progress of program delivery, and early signs of progress towards desired outcomes. It will consider how well management, coordination and allocation has supported program delivery and outcomes, and identify opportunities to improve.	The mid-term process evaluation of the Funding Plan was completed in February 2023 (Grosvenor 2023).

Process	Timing	Scope and focus	Progress
Evaluate Funding Plan outcomes	Towards the end of the Funding Plan (2024)	Conduct an outcomes-focused evaluation of the Funding Plan. The evaluation will consider the data collected on long-term drought resilience trends against the high-level indicators, and any analysis undertaken to understand the influence of programs on those indicators. It will identify what insights the Funding Plan's outcomes and the longer-term trends offer for the design of future Funding Plans. It will also document delivery across the full Funding Plan.	The end-term evaluation is planned for late 2024 (DAFF, pers. comm., 20 January 2023).
Facilitate learning at the Funding Plan level	Ongoing	Facilitate the sharing of knowledge and learning among programs, with steps that could include: <ul style="list-style-type: none"> • identifying innovations that will be relevant to other programs and broker relevant links between programs and stakeholders • documenting and disseminating data, case studies and insights from different programs • facilitating discussion among program stakeholders about the factors observed impacting program success, and facilitating collaborative problem definition and development of solutions. • Review risk mitigation and sharing lessons. 	Learning activities have primarily been done in an informal manner with a lack of structured mechanisms (chapter 2). However, there is evidence of learnings being incorporated into the design of newer programs.

Source: DAWE (2020c, p. 25, 2021a).

For each program, the approach to MEL is to be commensurate with the size and complexity of the program. DAFF program managers are expected to develop a program MEL plan that 'sets out the scope and approaches required to monitor, evaluate and learn from the program-funded activities and projects and report on them' (DAWE 2020c, p. 26). Delivery partners are responsible for many of the MEL activities, such as developing project MEL plans and regularly reporting to DAFF. DAFF program managers are responsible for undertaking or commissioning a mid-term process evaluation and an external end-of-program outcomes evaluation. The Department and delivery partners have made progress developing program and project MEL plans, completing progress reports and reviewing MEL plans. The Drought Resilience Funding Plan Mid-Term Evaluation also included mid-term evaluations of some programs.

5.3 Developing and implementing MEL activities has been challenging

Planning and implementation of MEL was hampered by the hasty roll out of programs ...

The design and implementation of monitoring and evaluation activities were hampered by the speed at which the Fund and programs were launched and the short-term focus of the initial programs. The MEL Framework was inadequately integrated with the *Drought Resilience Funding Plan 2020 to 2024* and was not reflected in the design of early programs. As noted by Lu Hogan and Professor Lewis Kahn (sub. 5, p. 1), the focus has

been on “getting the funds out the door” rather than developing an overarching evaluation plan to demonstrate outcomes and benefits’. Moreover, the MEL Framework, including the program theory, has also not been updated since it was released, so does not reflect the evolution of the FDF and its programs.

Ideally, programs should be designed in tandem with MEL plans. However, in some circumstances, MEL plans were developed well into the program’s implementation. For example, Hub MEL plans were not in place until roughly one year after the Hubs were created. Furthermore, the lack of clarity of the purpose and outcomes of the Hubs (chapter 7) has limited the ability to effectively track progress.

As outlined in chapter 3, there are also improvements to the overarching FDF program theory that would support more effective and coherent Fund and program design, and in turn, monitoring and evaluation. Clearly articulating the FDF’s vision, its intended impact and outcomes, and how FDF activities are expected to result in changes by and for whom, would provide a clear and testable hypothesis. This can guide what monitoring and evaluation processes and activities are needed to measure the intended outcomes and impact (Better Evaluation nd; Center for Theory of Change nd). Clearly articulating the roles of key FDF participants and groups in the program theory would also support more effective MEL.

... and a lack of capability and dedicated resources

It is necessary for DAFF to have relevant skills and expertise to design and implement MEL activities, and to provide clear guidance to delivery partners about MEL requirements. However, DAFF noted that resource and capability constraints posed a significant barrier to designing and implementing MEL activities. The Mid-Term Evaluation stated:

The lack of capability combined with reported resource constraints led to a delay in the implementation of MEL activities. Meaning MEL plans were often not developed until the programs were well into implementation. (Grosvenor 2023, p. 39)

The MEL Framework outlines activities for both the Fund and programs but monitoring and evaluation activities so far have focused largely on individual programs. Grosvenor (2023, p. 52) found there was little capacity to implement fund-wide MEL processes:

Allocated monitoring and evaluation capacity has been largely absorbed to date with facilitating the establishment of individual program MEL Plans, which has resulted in overall FDF monitoring, reporting and learning approaches being yet to be implemented and a review of the MEL framework is outstanding.

Improving FDF evaluation practices and building capability aligns with the priorities set out in Commonwealth Evaluation Policy. This policy and associated toolkits provide guidance on how to embed a culture of evaluation and learning, as well as improve evaluation practices, capability and the quality of performance reporting (DoF 2022b, 2022a).

Delivery partners have also faced challenges implementing MEL

Delivery partners also require capability to implement MEL activities. While some delivery partners have progressed MEL activities successfully, several noted that it was challenging.

The Monitoring Evaluation and Learning (MEL) reporting process is the greatest challenge we face and there is a need for the FDF to streamline the information gathering and reporting process. (Riverine Plains, sub. 29, p. 11)

Current review processes are time-consuming, repetitive, and largely ineffective without baseline and performance metrics. (NFF, sub. 17, p. 11)

The Rural Economies Centre of Excellence highlighted the duplication of reporting requirements. They noted the *Regional Drought Resilience Planning* (RDRP) program requires extensive reporting to both the Australian and state governments and considered the multiple layers of reporting and MEL need to be streamlined (sub. 38, p 6). Participants to the Mid-Term Evaluation highlighted that in some cases, schedules were not always well timed and have not changed when an extension has been granted (Grosvenor 2023, pp. 52–53).

Measuring drought resilience is difficult

There are inherent challenges in designing a MEL system to track drought resilience, which is a broad and complex concept (chapter 1). Many factors affect drought resilience making it difficult to attribute changes in drought resilience to specific programs, including the FDF and its programs (DAWE 2020c, p. 17, 2021a, p. 29).

Further, the ‘triple bottom line’ approach to resilience is intended to support a holistic, integrated approach to addressing challenges. However, the significant overlap between economic, environmental and social resilience adds to the complexity in measuring resilience across these dimensions (Nous Group 2020).

Economic resilience may appear more easily measurable, given farm productivity and profitability are quantifiable indicators. Many studies, trials and evaluations have estimated and attributed the effects of different farm practices on profitability (for example, Bennett 2021; Collier et al. 2015; Hall et al. 2010; Rising and Devineni 2020). ABARES also estimates climate-adjusted total factor productivity and has developed a farm business drought risk indicator (ABARES 2023; Hughes et al. 2020).

However, in many cases, there may be a trade-off between drought resilience and short-term profitability because of the costs incurred in the short term to build drought resilience for longer-term benefits. This highlights the need for a more holistic set of indicators across economic, environmental and social resilience. Many other factors affect profitability, making it difficult to attribute change in the indicator to the Fund.

Measuring social resilience also requires tailored approaches, given it is challenging to determine precisely what factors enhance social resilience for different communities at different times (chapter 3). Similarly, measuring how activities affect landscape resilience can be complex. Participants noted the ‘fundamental’ impact of agricultural landscapes being functional and sustainable, with healthy natural capital is a difficult priority to measure due to complexity, issues of temporal and spatial scales, and challenges of attribution (NACC NRM, sub. 21, p. 2; NRM Regions Australia, sub. 51, p. 2; NRM WA, sub. 13, p. 2; Rangelands NRM Coordinating Group, sub. 50, p. 3). Tailored, longer-term monitoring and measurement approaches are required to cover a wide range of different environmental outcomes across regions with diverse landscapes (Sayer et al. 2017; Sparrow et al. 2020).

Despite these challenges, some progress is being made by DAFF and delivery partners to implement MEL activities (box 5.2).

Box 5.2 – Examples of efforts to implement monitoring, evaluation and learning activities

The Hubs

Cross-hub learning is supported through DAFF's MEL team and the Hub-MEL Community of Practice (TAS Farm Innovation Hub, sub. 89, p. 5). Each Hub, however, undertakes their own MEL activities.

TAS Farm Innovation Hub reports that annual partner forums are part of the formalisation of learnings sharing with partners, which has been largely informal to date. Working with Southern Cross University, they are also using social network analysis of both quantitative and qualitative data to monitor if and how the Hub is facilitating greater collaboration throughout their network. This ongoing monitoring will inform their strategic planning around partnerships (TAS Farm Innovation Hub, sub. 89, pp. 5–6).

The South-West WA Drought Resilience Adoption and Innovation Hub reports that they are collecting outcome narratives from farmers and land managers about changes in their knowledge, attitudes, skills, aspirations, and practices. They are similarly collecting outcome narratives and 'Most Significant Change stories' about collaborations in their networks. The Hub will assess the appropriateness and effectiveness of these approaches over time (GGA and SW WA Hub, sub. 86, p. 10).

Helping Regional Communities Prepare for Drought Initiative (HRCPI)

The Foundation for Rural and Regional Renewal, the Australian Rural Leadership Foundation, and the DAFF MEL team have taken lessons from stage 1 of the *Better Prepared Communities* stream to develop the MEL plan for stage 2, the HRCPI. They have commissioned Nous Group to develop the MEL plan, theory of change and program logic. The MEL plan will also measure the longer-term outcomes of stage 1 and could form the basis for future FDF MEL plans for programs that focus on social resilience (FRRR, sub. 70).

Climate Services for Agriculture program

Coutts J&R are the monitoring, evaluation and learning consultants for *the Climate Services for Agriculture* (CSA) program. Coutts J&R has integrated MEL into the program in a number of ways.

- A secure online central MEL database has been developed for the CSA program. The data collected through the platform is tagged to outcomes and success measures. This means that relevant data is collated and available for analysis and reporting against outcomes when required. There is also opportunity to record learnings which can be used to inform future engagement or other program activities.
- The CSA program has used narratives as one way to demonstrate its pathway to impact. In particular, Coutts J&R has used narratives where qualitative and contextual data is important (Coutts J&R, sub. 68).

5.4 Opportunities to improve the MEL system

Strengthening the MEL system will require improvements in a range of areas, including scope to:

- develop and improve Fund and program indicators to measure overall Fund impact
- report on more medium- to long-term outcomes
- improve collection and reporting of data
- embed Aboriginal and Torres Strait Islander engagement and outcomes in the MEL system.

Developing Fund indicators to measure overall impact

The indicators in the FDF's MEL framework are intended to measure baseline levels of economic, environmental and social resilience to drought, attribute changes in drought resilience to specific actions, support the evaluation of the FDF, and improve understanding of trends in drought resilience more generally (DAWE 2020c, p. 17, 2021a, p. 29). The MEL Framework sets out two categories of indicators to do this.

- **High-level drought resilience indicators:** These monitor long-term drought resilience patterns, across economic, environmental and social resilience. Many of these indicators do not measure drought resilience specifically but resilience more generally.
- **Funding Plan and program-level indicators:** Programs under the Fund are expected to have short- and medium-term outcome indicators as well as output indicators. It was also intended that DAFF develop indicators to measure overall outcomes under the Funding Plan (DAWE 2020c, p. 21).

The high-level indicators broadly align with those recommended by Nous in its report for the Department (Nous Group 2020). ABARES also contributed research products and data for some indicators.

However, the approach is not sufficient to provide a comprehensive evaluation of the Fund's contribution to drought resilience. Establishing a causal link is challenging, given resilience indicators will be affected by factors beyond the FDF, and it may not be possible to attribute increased resilience to FDF activities. Nonetheless, examining changes in practices that stem from FDF programs can help with this, for example through surveys of farmers, in depth interviews or focus group discussions. This is something the Department has taken steps towards, with ABARES conducting a survey of farm practices in 2021. The survey included questions on farm planning and management, financial diversification, the use of natural resource management (NRM) and other farming practices, and government programs (including the FDF). However, it is not clear if it will continue to be funded or how often it will be conducted.

More work is needed to develop a comprehensive framework to assess the effectiveness of the Fund in building drought resilience. The Department should identify fund-wide indicators in conjunction with developing a measurement approach. It should assign responsibilities and ensure collection, reporting and analysis of the data over time. This has received broad support from inquiry participants.

Planning should consider how to use existing (or develop) key national assessment indicators across financial, environmental, social outcomes to be able to associate (with consideration of appropriate time lags) broad industry changes with the timescale of Future Drought Fund. (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 3)

... on-going benchmarking analysis of national data on farm productivity, accessing of drought subsidies, linked to climate and market trends over time and through national farm surveys by ABARES should be happening alongside the FDF programs linking to the program's objectives. (Southern NSW Innovation Hub, sub. 74, p. 5)

The framework should comprise a set of input, output and outcomes measures linked to a clear theory of change (chapter 3). These measures should be quantitative and qualitative, to capture the multiple dimensions of the Fund's performance. Measures should also capture knowledge generation, sharing and application to support the proposed knowledge system (chapter 3). In the short term, this could include monitoring and evaluation of knowledge use through surveys, interviews and focus groups. In the longer term, assessments to understand knowledge implementation and adoption could also be undertaken (Bhawra and Skinner 2020). This set of measures would then also be used to guide development of program indicators.

In selecting indicators, DAFF should consider the benefits and costs of measurement. MEL activities from other programs could provide some useful lessons for developing and implementing a framework, understanding outcomes and embedding learnings in program design. For example, the Department of Foreign Affairs and Trade (DFAT) funds a number of development programs that aim to build resilience or lead to agricultural practice change (box 5.3).

Box 5.3 – MEL examples from international development programs

Performance monitoring, evaluation and reporting is an integral part of assessing the impacts of countries' international development investment portfolios. In Australia, the DFAT performance and delivery framework addresses how MEL informs the implementation of the development program. For example:

- Country and Regional level – Development Partnership Plans will include a performance assessment framework with indicators and a consultation, evaluation and learning plan that identifies the timing of key stakeholder forums, evaluations, and learning and dissemination activities
- Investment level – MEL Plans set out how outcomes will be achieved, indicators to assess progress and risks to delivery. Program areas are required to identify, prioritise and complete a minimum number of evaluations each year.

MEL quality expectations are set out in the DFAT Design and Monitoring, Evaluation & Learning Standards. These standards cover the whole program cycle, from concept through to design and implementation. Each investment (greater than \$3 million) is rated on a six-point scale against the four quality criteria of effectiveness, efficiency, gender equality and disability equity. The performance of key delivery partners is also assessed annually.

DFAT processes that aim to facilitate transparency and learning include: providing management responses to all evaluations; publishing evaluations and management responses on the DFAT website within three months; linking the design of strategies, programs and investments with evaluation; and senior management oversight.

Insights from specific MEL activities are considered further below.

Australia Pacific Climate Partnership

The Australia Pacific Climate Partnership (2018–2024) aims to strengthen the climate and disaster resilience of Pacific peoples.

To address inherent challenges in measuring resilience outcomes – which are multi-faceted, are not known at the time of planning, and can be difficult to attribute to a specific investment – the Australia Pacific Climate Partnership adopted an evaluation approach based on 'outcome harvesting' (UTS ISF 2022). This approach does not aim to measure progress towards pre-determined outcomes but

Box 5.3 – MEL examples from international development programs

collects evidence of what has changed, then determines if and how an intervention has contributed to the change. An important step in this approach is to substantiate the outcomes with those involved.

Global Agriculture and Food Security Program

Australia is a supporter of the Global Agriculture and Food Security Program, which invests in agriculture and food security and provides grants to raise agricultural productivity, link farmers to markets, improve non-farm rural livelihoods, and reduce risk and vulnerability.

The program's monitoring and evaluation framework is organised in three tiers, each with suitably different approaches to measurement.

- Tier 1 – overall impact (including on income and food security) – rigorous or rapid impact evaluations.
- Tier 2 – intermediate outputs and outcomes – project monitoring, includes indicators relating to the uptake of climate resilient and sustainable agricultural practices such as:
 - number of farmers receiving and then adopting technologies and services
 - land area where practices are implemented
 - agribusiness organisations adopting interventions in their operations.
- Tier 3 – program inputs and program management.

Source: DFAT (2022, 2023, nd); GAFSP (2022, 2023).

Improving program-level indicators

Current indicators for FDF programs tend to focus on inputs or outputs generated, rather than on outcomes, which hampers the ability to understand the impacts of individual programs on drought resilience. The National Farmers' Federation (sub. 17, p. 7) also noted the 'lack of appropriate performance metrics ... renders it difficult to effectively and practically assess programs in terms of their contribution to improving industry resilience and demonstrable value for money'. It further highlighted:

It is critical that each FDF program, grant or arrangement includes appropriate performance indicators to define objectives, define success and inform monitoring and evaluation processes ... By regularly tracking and analysing performance metrics, we can make data-driven decisions and adjustments to FDF measures, resulting in better outcomes for industry. (sub. 64, p. 13)

Program MEL plans include 'success measures' that refer to intermediate outcomes (2–4 years), but it is common that the indicators used tend to focus on counts of participants or outputs generated.

- One of the success measures for the *Climate Services for Agriculture (CSA)* program is 'the climate information capabilities are used and valued by the target audience' (DAFF 2022a, p. 13). However, indicators for this measure include 'increasing use/return web statistics' and 'increased reference in traditional and social media' (DAFF 2022a, p. 13) which only concerns the outputs of the CSA program rather than how CSA is being used or what it has achieved. Feedback on progress towards this outcome is also sought through surveys. Despite this being an intermediate program outcome with a 2–4 year timeframe, Coutts J&R (sub. 68, p. 2) noted that it is unrealistic to expect widespread adoption of the tool and on-ground change after only four years, when the focus has been on the development process.

- The *Better Prepared Communities* programs measure success through attendance numbers and size of networks, which are unlikely to meaningfully capture the community's resilience to drought (chapter 7).

The Grower Group Alliance and South-West WA Drought Resilience Adoption and Innovation Hub (sub. 86, p. 10) recognised the need to better capture the outcomes of the *Drought Resilience Adoption and Innovation Hubs* program, noting:

... additional tools are required to capture all relevant outcomes and contributions of the Hubs in changes to knowledge, attitudes, skills and aspirations (KASA) and practice change for drought resilience and preparedness.

Another gap in program performance measurement is that data for only some indicators has been collected so far. In some cases, this is because the data is not ready for collection, but in other cases its absence is unexplained, and progress is not reported. There also appears to be limited documentation of what methods will be used to systematically collect data or how it will be analysed. This has meant that data collected within programs, such as for the Hubs and the *Farm Business Resilience* (FBR) program, is not always consistent and comparable (SA Government 2022a; Southern NSW Innovation Hub, sub. 74).

The Commission acknowledges it is difficult to measure outcomes in a short period of time and as programs are established. However, approaches to measurement should be developed as soon as practicably possible.

There are some emerging examples of program monitoring and evaluation practices that aim to measure outcomes. For example, the Commission has heard some jurisdictions are developing approaches to monitor outcomes from the FBR program. In New South Wales, participants complete a farm performance survey before and after completing the program. Alumni can also complete the survey again at 6- and 12-months post program. This will allow the NSW Department of Primary Industries to collect data on the outcomes being achieved (NSW Department of Primary Industries, pers. comm., 14 July 2023). In Tasmania, a partnership with the Tasmanian Institute of Agriculture will undertake the MEL component of the FBR program (Tasmanian Government, sub. 52, p. 3).

The South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 3) suggested one possible method for assessing outcomes.

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.

Reporting of medium- to long-term outcomes is essential

Monitoring and reporting activities are not funded beyond the timeframe of a program. Ongoing reporting on outcomes beyond the program therefore relies on external stakeholders. Grosvenor (2023, p. 53) noted 'ongoing ... reporting is likely to be limited and/or ad-hoc'.

Programs are often short term, and the impact is likely to extend beyond the program funding cycle. As the Tasmanian Government (sub. 52, p. 5) highlighted, the effectiveness of programs 'may not be known until the individuals, businesses and communities need to respond to the next drought'. Indeed, if the programs

are well designed, they can deliver long-term resilience benefits. However, this longer-term effectiveness is unlikely to be measured.

Similarly, the Foundation for Rural & Regional Renewal (FRRR) noted:

... measuring outcomes and impact requires a long-term commitment of five+ years of continuous evaluation. Programming for 12 months, and then 2-3 years does not create conditions for learning, understanding, and evidencing change and the drivers of that change, beyond input and outputs. Building and delivering multiple streams of evaluation in a short-term and disjointed environment is likely to have influenced any lack of clarity being experienced or observed. (sub. 70, p. 8)

Some progress has been made recently in longer-term monitoring. For example, the *Drought Resilience Scholarships* program provides scope for continued engagement for up to two years after the completion of the scholarship (DAFF, pers. comm., 7 August 2023).

There is scope to undertake additional longer-term monitoring and reporting for some priority programs that are intended to deliver long-term outcomes, including at some time after the conclusion of an activity or program. Longitudinal monitoring, which collects data from the same participants over time, would also provide insight into how responses and outcomes change in the short and long term.

Improved collection and reporting of data and outcomes

Reporting on data and outcomes increases transparency and accountability and can foster a culture of evaluation and continuous learning. It also provides an opportunity for DAFF to demonstrate how the data and information participants provide is used. However, some participants can see little if any value for themselves in the reporting and evaluation processes (section 5.6). And the process for capturing data varies across programs (and even within programs) and it is difficult to aggregate.

One option to improve this process is for DAFF to develop (or tailor) a central online platform for delivery partners to report program data and outcomes. This platform could provide a streamlined process for delivery partners to provide information on progress, while also supporting comparability and aggregation to help understand the collective impact of programs.

Inquiry participants supported the idea of a more streamlined centralised platform. For example, the Southern NSW Innovation Hub (sub. 74, p. 4) noted it is not sure why there isn't a central on-line facility to capture cross-Hub or cross program impact. Similarly, Dr Chad Renando (sub. 77, p. 8) proposed that:

... investments are made into centralised network structures to increase efficiency and effectiveness of individual initiatives, including: investments into centralised administrative functions to support shared data management and evaluation ... and investment into systems infrastructure to support the network, including policy and actor mapping, knowledge sharing, and evaluation frameworks.

A platform would require careful design to ensure usability and functionality as demonstrated by experiences with other platforms. For example, the monitoring, evaluation, reporting and improvement tool (MERIT) was developed to collect and store consistent reporting data across all Australian Government NRM programs and was used by the FDF's *Natural Resource Management Drought Resilience Program– Landscapes*. Some program stakeholders found reporting processes to be onerous and inflexible, that the tool was not well tailored to the FDF and that it wasn't clear how DAFF used the reporting (Grosvenor 2023, p. 35). This highlights the need for fit-for-purpose reporting that can be adapted for different programs.

The feasibility of such a system could be considered as part of the proposed FDF knowledge strategy (chapter 3). If the Department decides the platform is worth pursuing, it could work with stakeholders to

design and implement the platform so that it is appropriately tailored to their requirements, reduces unnecessary reporting obligations and fosters improved information sharing. The platform would ideally be easy to use and flexible, and adopt monitoring and data gathering tools that are designed around outcome reporting (Coutts J&R, sub. 68, p. 3).

Embedding Aboriginal and Torres Strait Islander engagement and outcomes in the MEL system

As outlined in chapter 6, Aboriginal and Torres Strait Islander people were not adequately involved in the objective-setting or development of the Fund. There is little mention of Aboriginal and Torres Strait Islander engagement or outcomes in the MEL Framework. Embedding Aboriginal and Torres Strait Islander outcomes in the MEL Framework and in program MEL plans is important to create accountability, transparency and continual improvement.

To achieve this, DAFF should facilitate meaningful opportunities for Aboriginal and Torres Strait Islander people to engage in setting priorities for MEL and its design. Similarly, Aboriginal and Torres Strait Islander people should have opportunities to be engaged in MEL, including to collect, interpret and report data (chapter 6).

5.5 Building capability and capacity for MEL

It is important that DAFF program delivery teams have capability and resources to undertake MEL activities, and in turn provide guidance to and build MEL capacity within delivery partners. This is crucial for embedding evaluative practices within program delivery.

DAFF has indicated it intends to launch training during the next Funding Plan (subject to resourcing). The goal is to ensure their program delivery teams have a strong understanding and capability to undertake MEL activities (DAFF, pers. comm., 7 August 2023). Additionally, specific capability building may be needed to support implementation of the Indigenous Evaluation Strategy (chapter 6).

DAFF should evaluate the success of these capability-building initiatives. By gathering and incorporating feedback, they can refine the process and ensure it meets the needs of programs managers and delivery partners.

While DAFF already provides Departmental funding to implement MEL and should continue to do so, resourcing for MEL activities has been inadequate to implement fit-for-purpose MEL activities.

Given MEL is central to the ongoing success of the Fund, the Commission is of the view that MEL activities and building MEL capacity would be an appropriate use of FDF funding. Funding from within the existing funding envelope should be used to ensure a fit-for-purpose MEL system.

The FDF has already funded some MEL activities, including developing the MEL framework. Further, under the *Helping Regional Communities Prepare for Drought Initiative* (HRCPI), the FDF has invested \$1.3 million to measure the impact of social resilience. The funding is being used to develop 'an extensive multiyear MEL Framework and plan, Theory of Change and Program Logic, that will capture outcomes, and develop a very strong evidence base for the investment in social capital'. (FRRR, sub. 70, p. 9). The work will also involve capturing longer-term outcomes from a selection of stage 1 participants.

The FDF Consultative Committee also supports using FDF funds for MEL.

The Committee is strongly of the view that more investment in monitoring, evaluation and learning (MEL), is required and it has been our observation that with resourcing, this could be done much better, driving better program outcomes as learnings are applied. The Committee suggests

potentially ten per cent of the funds committed each year should be invested in MEL, impact assessment, communications and consultation. (sub. 69, p. 2)

Funding from the FDF should be allocated to DAFF including, where appropriate, to build the capability of delivery partners to implement both FDF and program level MEL activities. Funding could also be allocated for updating the theory of change (chapter 3) and developing the framework to measure drought resilience.

5.6 Learning could more systematically inform program design and implementation

Issues with the design and implementation of programs in the foundational phase of the FDF (chapter 2) have provided lessons to improve the FDF in the next Funding Plan (chapter 3). While there is some evidence these lessons are being incorporated in the design and implementation of programs (box 5.4), their application has tended to occur in an ad-hoc way rather than by design.

In some cases, evaluations of programs were either not undertaken or were not completed to allow sufficient time to inform the development of related programs. For instance, full mid-term evaluations of the *Networks to Build Drought Resilience* (Networks) and *Drought Resilience Leaders* (Leaders) programs were not conducted. While a final report for both programs on program implementation and learnings was prepared in February 2023 (FRRR 2023d), the report could not inform the design of the HRCPI, which commenced in July 2022 (DAFF 2023k).

Box 5.4 –Examples of improvements in program design

Many foundational programs were short term, created significant administration and implementation challenges and were inconsistent with the long-term nature of building drought resilience (chapter 2).

For example, the short-term nature of the foundational *NRM Drought Resilience* programs meant they were unlikely to deliver meaningful outcomes. The subsequent *Drought Resilience Soils and Landscapes* program addresses these issues by providing more time with the intent of landscape-scale changes. In addition, the *Long-term Trials of Drought Resilient Farming Practices Grants* program reflects a shift to longer-term investments to build drought resilience (DAFF, sub. 42, pp. 8–9; FDF Consultative Committee, sub. 3, pp. 3–5).

Participants also had concerns about the lack of coordination between the Leaders and Networks programs and the lack of integration with other programs. These concerns have informed the design of the HRCPI, which better integrates the networks and leadership activities and aims to align more with the RDRP program (chapter 7). FRRR (sub. 70, p. 9) noted that ‘iterative program delivery learning was captured through regular reporting to DAFF, delivery partner collaboration, information sharing, and feedback from communities’.

Learning has also been constrained by a lack of transparency and information sharing. Information on the FDF is difficult to find or in many cases is not publicly available (chapter 2). For example, FDF MEL plans and monitoring and evaluation reports are not available on DAFF’s website. While this may be appropriate in some cases to facilitate a safe learning culture, it is important that reports can be used by stakeholders to inform learning and so that learnings can be shared across different programs and jurisdictions.

The Commission has also heard that participants can see little, if any, value for themselves in the reporting and evaluation processes.

Of importance is the fact that the data we provide doesn't circle back to us, so we cannot then shape priorities to address gaps in farm knowledge or community resilience. ... Long evaluations without a clear value proposition back to the end user means not as many surveys are filled in, reducing the understanding the FDF can elicit from this valuable feedback mechanism. (Riverine Plains, sub. 29, p. 11)

Nevertheless, there are examples of improved information sharing. FRRR (sub. 37, p. 11) noted that information sharing between programs had improved over time. And the Hubs have established a national community of practice, which 'allow[s] the national hubs to collectively engage in solutions to share and adopt administrative practices, reduce duplication and identify and share overlapping programs and target audiences' (TNQ Hub, sub. 33, p. 2).

There would be value from DAFF coordinating more deliberate, timely mechanisms to enable and encourage the sharing of knowledge and learnings on a regular basis. For example, this could include internal knowledge sharing, communities of practice, coaching and mentoring and peer-to-peer learning (Grosvenor 2023, p. 41). DAFF could also foster collaboration between different programs by facilitating cross-learning opportunities. Inquiry participants agreed that more sharing of practice and learnings would be useful.

We also once again note that the opportunity to meet face-to-face to share learnings would also benefit program implementers with regard to achieving the MEL outcomes for the Future Drought Fund. (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 6)

DAFF should also ensure relevant knowledge is readily available to stakeholders. Program managers need to ensure that the feedback and data collected is useful and supports decision making. This requires that information flows to the people who need it in a timely manner and in a format that is useful to them. The centralised MEL platform could also assist in this information sharing.

Finally, there could also be benefits from regular program review and planning events to consider the progress of a program, share learning and identify and prioritise areas for improvement.



Recommendation 5.1

Strengthening the monitoring, evaluation and learning system

The monitoring, evaluation and learning (MEL) system should be strengthened. Additional investment in MEL capabilities and implementation is required. The Australian Government should provide funding from the Future Drought Fund to the Department of Agriculture, Fisheries and Forestry (DAFF) to build capability, including of delivery partners, and implement fit-for-purpose MEL activities.

DAFF should work with stakeholders to develop fund-wide performance measures for economic, environmental and social resilience, and ensure collection, reporting and analysis of the data over time. DAFF could improve program MEL activities through:

- developing appropriate program performance indicators – including outcome measures that are linked to the theory of change – to measure progress of programs in supporting drought resilience
- trialling longer-term monitoring and reporting for priority programs to provide a better understanding of the long-term resilience benefits, including beyond the conclusion of an activity or program
- streamlining reporting obligations for delivery partners and grant recipients to improve consistency and comparability, reduce duplication and avoid unnecessary reporting.

6. Improving outcomes for Aboriginal and Torres Strait Islander people

Key points

- * **Aboriginal and Torres Strait Islander people have been caring for lands, waters and seas for tens of thousands of years, and continue to hold and develop highly valuable Indigenous knowledges.**
- * **Genuine engagement and partnership building was absent during the design of the Future Drought Fund (FDF) and has been inconsistent since. Little funding has gone to Aboriginal and Torres Strait Islander organisations and activities. The Department of Agriculture, Fisheries and Forestry has commissioned work to identify opportunities for better engagement and enhanced outcomes, and there is broad support for more assistance in this area from FDF stakeholders.**
- * **Improvements to the Fund should be shaped by the self-asserted aspirations of Aboriginal and Torres Strait Islander people, both at a Fund and local level. A working group should be established to drive changes in the FDF, possibly including improvements in governance arrangements, monitoring, evaluation and learning, policy, and establishing supports for better engagement and partnership building.**

Aboriginal and Torres Strait Islander people have been caring for lands, waters and seas for tens of thousands of years as an integral part of their culture and identity. Their deep and enduring relationship with Country is central to spirituality, cultural vitality and resilience. Aboriginal and Torres Strait Islander people continue to actively manage land and resources for interlinked social, cultural, spiritual and economic purposes, including to produce food and fibre.

However, since early colonial times, Aboriginal and Torres Strait Islander people have been dispossessed of their lands and waters. Institutions that shaped systems of land and water rights have historically excluded Aboriginal and Torres Strait Islander people, who have been denied opportunities to access and care for Country, or to generate wealth from productive uses of land (Aboriginal & Torres Strait Islander Social Justice Commissioner 2009, p. 170; Mcnamara 2017; Terri Janke and Company 2022, p. 30). Under practices extending into most of the 20th century, many Aboriginal and Torres Strait Islander people were compelled to work, often under duress, for private landholders on farming businesses, growing the agricultural sector (Standing Committee on Legal and Constitutional Affairs 2006). The legacy of dispossession has ongoing implications for Aboriginal and Torres Strait Islander people's economic, social and cultural wellbeing, and their participation in the agricultural sector.

Many inquiry participants expressed interest in strengthening the participation of Aboriginal and Torres Strait Islander people in the Fund, including through applying Indigenous knowledges to build resilience. The Fund has supported some emerging examples of partnerships and projects that benefit Aboriginal and Torres Strait Islander people and the wider agricultural sector. However, challenges have also been experienced and acknowledged, and some Fund participants may be uncertain about the best ways to proceed.

The Department of Agriculture, Fisheries and Forestry has recognised there has not been a systematic effort across the Fund regarding Aboriginal and Torres Strait Islander engagement and outcomes (DAFF, personal communication, 27 July 2023). There have, however, been two ‘enabling activities’ funded to lay the groundwork. The Department commissioned Murawin Pty Ltd to conduct engagement and undertake work with the Hubs on Aboriginal and Torres Strait Islander people’s priorities, and Terri Janke and Company to advise on gaps, barriers, and opportunities in drought resilience and innovation in rural and remote Aboriginal and Torres Strait Islander communities. The next Funding Plan period represents an opportunity to help foster strong, reciprocal and respectful partnerships with Aboriginal and Torres Strait Islander people, in ways that strengthen their participation in decision-making about the Fund.

Opportunities to enhance engagement and benefits need to reflect the Australian Government’s commitment to improving outcomes for Aboriginal and Torres Strait Islander people in the *National Agreement on Closing the Gap 2020* (box 6.1). As noted in the Review of the National Drought Agreement:

This lack of recognition and silence on opportunity for First Nations people is inconsistent with the intent of a range of existing commitments and policy positions of the Australian Government and state and territory governments, already demonstrated through the National Agreement on Closing the Gap, the Voice to Parliament and treaty discussions. (Parties to the National Drought Agreement 2022, p. 14)

Box 6.1 – National Agreement on Closing the Gap

The National Agreement on Closing the Gap is an agreement between the Coalition of Aboriginal and Torres Strait Islander Peak Organisations (Coalition of Peaks) and all Australian governments. It is a commitment to achieving better socio-economic outcomes for Aboriginal and Torres Strait Islander people. The Agreement specifies four priority reform areas to change the way governments work to accelerate improvements in these areas. They are:

- Priority Reform one – formal partnerships and shared decision-making
- Priority Reform two – building the community-controlled sector
- Priority Reform three – transforming government organisations
- Priority Reform four – shared access to data and information at a regional level.

The socio-economic outcomes include:

- socio-economic outcome 7: Aboriginal and Torres Strait Islander young people are engaged in employment or education
- socio-economic outcome 8: Strong economic participation and development of Aboriginal and Torres Strait Islander people and communities

Box 6.1 – National Agreement on Closing the Gap

- socio-economic outcome 14: Aboriginal and Torres Strait Islander people enjoy high levels of social and emotional wellbeing
- socio-economic outcome 15: Aboriginal and Torres Strait Islander people maintain a distinctive cultural, spiritual, physical and economic relationship with their land and waters.

This chapter discusses the Fund's potential to provide opportunities to, and benefits for, Aboriginal and Torres Strait Islander people, and how the Fund could be improved to achieve this.

6.1 Aboriginal and Torres Strait Islander people are active participants but are underrepresented in the agricultural sector

The terms of reference asked the Productivity Commission to consider opportunities for the Fund to improve engagement with, and benefits for, Aboriginal and Torres Strait Islander people. Given it is an agriculture-focused Fund, understanding the relationships Aboriginal and Torres Strait Islander people have with the sector is important in contextualising the opportunities and constraints.

Many Aboriginal and Torres Strait Islander people directly or indirectly participate in agriculture across locations, sectors, and roles – including being owner-managers of approximately 600 agricultural businesses – and applying Traditional, Western, or mixed agricultural practices (Barnett et al. 2022). The value of Aboriginal and Torres Strait Islander agricultural businesses is expected to grow (Barnett et al. 2022, p. 36).

However, Aboriginal and Torres Strait Islander people are underrepresented in the agricultural sector. Despite making up 13.1% of the population in outer regional, remote and very remote areas (based on ABS 2023), only 1% (3,278) of people directly employed by the agricultural industry identified as Indigenous (Binks et al. 2018, p. 6).

There are also significant land areas that, as part of the Indigenous estate, are either owned (17%), managed or co-managed (22%) and/or subject to other special rights for Aboriginal and Torres Strait Islander people (44%) (Jacobsen, Howell and Read 2020).⁷ While this land supports a significant amount of primary production, it is mostly undertaken by non-Indigenous people (Barnett et al. 2022, p. 13).

6.2 The FDF has potential to benefit Aboriginal and Torres Strait Islander people and the wider agricultural sector

The FDF is a significant opportunity to deliver better outcomes for Aboriginal and Torres Strait Islander people, including in ways that build towards self-determination (Victorian DEECA, sub. 55, p. 4). As a

⁷ The figures for ownership, management/co-management, and special rights refer to the percentage of Australia's total landmass. There is substantial overlap between them.

perpetual fund, it creates the possibility of long-term partnership building, which is important for developing trust with Aboriginal and Torres Strait Islander communities. The establishment of programs and regional plans represent opportunities to adopt the partnership-based approach committed to under the National Agreement on Closing the Gap.

There is much to be gained in supporting Indigenous leaders in this area, identifying opportunities for co-design of projects and considering the impacts of drought and climate change on indigenous communities and their wellbeing e.g., access to water, local food security (provision and access to bush foods), and impacts of drought on cultural practices and cultural sites, as well as economic development opportunities. (NRM Regions Australia, sub. 51, p. 7)

In addition, an integrated triple bottom line approach aligns more closely with conceptions of caring for Country than siloed policies do, and this will increase as climate change is more explicitly included in the Fund's remit into the future (chapter 3).

There are benefits to increased Aboriginal and Torres Strait Islander people's participation in the agricultural sectors ...

The FDF presents an opportunity to support Aboriginal and Torres Strait Islander people's participation in the agricultural sector. In addition to the direct social, economic, and environmental program outcomes, indirect outcomes like skills development, knowledge sharing, institutional capacity building, and relationship and network building may further contribute to increased participation of Aboriginal and Torres Strait Islander people at all levels of the agricultural sector.

Agriculture is strongly aligned with many Aboriginal and Torres Strait Islander people's socio-economic development aspirations (Barnett et al. 2022, p. 35). Increased participation within the agriculture industry could support outcomes under the National Agreement on Closing the Gap, including to increase Aboriginal and Torres Strait Islander young people's employment (outcome 7) and to strong economic participation and development of Aboriginal and Torres Strait Islander people and communities (outcome 8).

Increasing participation would also benefit the sector (KPMG 2023). For example, Aboriginal and Torres Strait Islander youth participation has been identified as an opportunity to maintain and grow the ageing agricultural workforce (Pratley et al. 2022).

... including in ways that support the sustenance, cultivation and sharing of Indigenous knowledges

Increased participation could also enable more Aboriginal and Torres Strait Islander people to work and live on their traditional lands, allowing for cultural benefits through connection to Country and practising Indigenous knowledges. These benefits are one of the key reasons for the success of Indigenous ranger programs (DPC 2019; Social Ventures Australia 2016; The Pew Charitable Trusts 2015; Urbis 2012). Murawin (2022, p. 21) noted:

First Nations agriculture provides a significant opportunity for Indigenous people. Not only does it have an economic benefit, but it also ensures that custodian responsibilities concerning Caring for Country can continue. Young people are also able to remain on Country and learn traditional practices, ensuring the transmission of cultural knowledge to the next generation.

The agricultural sector also stands to benefit from sustaining and integrating Indigenous knowledges, including, for example, applying localised knowledge of seasons that have been developed over thousands of years (CSIRO 2022). There is growing evidence detailing how Indigenous knowledges are being used around the world

in agricultural production, including specifically around drought management and climate change adaptation (for example, Akanbi and Masinde 2018; Aliabadi, Ataei and Gholamrezai 2022; Derbile 2013; Muyambo, Bahta and Jordaan 2017; Roos, Chigeza and van Niekerk 2010). Murawin (2022, p. 39) noted:

Once readily dismissed by Western scientists, Indigenous peoples' ecological knowledge has come to be viewed as an incredibly valuable resource, providing extraordinarily detailed information about environments and the processes that shape them. As the cumulative impacts of climate change are increasingly felt, the role of First Nations Knowledge Holders in enhancing resilience to these impacts is being acknowledged.

Inquiry participants recognised the potential value of having Aboriginal and Torres Strait Islander people as collaborators and leaders within the FDF (box 6.2). There are also possible commercial benefits in diversifying into new products and through environmental and social benefit related credentialing (Barnett et al. 2022, pp. 35–36).

Box 6.2 – Examples of inquiry participants supporting Aboriginal and Torres Strait Islander people having a greater role in the FDF

To build on the foundations of Aboriginal Self Determination, it is imperative that Traditional Owners and Aboriginal Victorians are influencing policy and decision making in agriculture, as well as developing strong and enduring partnerships to enhance the role of caring for country in drought and climate resilience ... The wealth of knowledge of Traditional Owners and Aboriginal Australians in managing agricultural landscapes is currently missing from the Future Drought Fund framework. (Victorian DEECA, sub. 55, p. 4)

Increased Indigenous collaboration and leadership are in the interests of everyone involved in the Australian agriculture sector, as outlined in sector vision statements such as the NFF 2030 Roadmap. The NFF 2030 Roadmap identifies that supporting Indigenous collaboration and leadership in agricultural will work to reduce disadvantage in Indigenous communities, encourage better representation of Indigenous agriculture and attract new labour and skills. (NFF, sub. 17, p. 12)

... the use of indigenous organisation and knowledges should be more prominent. Aboriginal and Torres Strait Islander people are the first farmers and have been adapting to drought and disaster for millennia. (La Trobe University, sub. 35, p. 3)

Aboriginal and Torres Strait Islander communities have a wealth of deep knowledge and practice in adapting to the challenges posed by droughts and other environmental stresses ... Planning and solution development to improve drought resilience will be more effective in partnership with Aboriginal and Torres Strait Islander Peoples and communities. (ATSE, sub. 7, p. 3)

... 'improving opportunities for Aboriginal and Torres Strait Islander people' ... is vital to enhance the wellbeing and prosperity of all Indigenous people across the nation. But also, within the catchment area of each Hub. There are opportunities for university sector to engage and collaborate with Indigenous communities, addressing climate change, agricultural, community wellbeing and other identified concerns. (IWF and CEAT, sub. 79, p. 12)

Activities Aboriginal and Torres Strait Islander people are currently working with our members on to build landscape resilience to the effects of climate change include a range of traditional land

Box 6.2 – Examples of inquiry participants supporting Aboriginal and Torres Strait Islander people having a greater role in the FDF

practices ... In addition to these practices building landscape resilience for drought and providing sustainable income to Aboriginal and Torres Strait Islander people, a number of additional benefits are also generated, including the sequestering of carbon, improving community wellbeing and building social equity. These benefits clearly demonstrate the need for Aboriginal and Torres Strait people to play a greater role through the Fund. (LGAQ, sub. 22, p. 11)

Barriers to Aboriginal and Torres Strait Islander people's participation in the FDF

The FDF has stated aspirations to engage with Aboriginal and Torres Strait Islander people, but its focus on participants who own farming properties and businesses is a barrier. Most Aboriginal and Torres Strait Islander people do not hold rights to their ancestral lands, and many who do face legal barriers such as ongoing caveats that limit how land can be used (Murawin 2022, p. 27; Terri Janke and Company 2022, p. 31). Furthermore, the definition of a 'farm' is not always relevant to Aboriginal and Torres Strait Islander food cultivation activities, which are nevertheless susceptible to drought and climate change (Northern Hub, sub. 84, p. 7; Tasmanian Government, sub. 52, p. 7). There has also been a lack of concerted effort to culturally translate terms and narratives to reflect Indigenous cultural narratives around drought (RECoE, sub. 38, p. 8).

Aboriginal and Torres Strait Islander people also face barriers within the institutions of the agricultural sector. A report commissioned by the National Farmers Federation found that:

Consultation indicated that one of the most significant barriers to attracting and retaining more Indigenous participation in contemporary agriculture is a lack of cultural awareness and cultural competency within organisations, sectors, training and education forums, and other everyday industry settings ... The current makeup of the agricultural workforce at the board and executive level is currently not reflective of the diversity of industry, specifically with respect to current Indigenous contributions both pre and post farm-gate. (KPMG 2023, p. 27)

The focus on agricultural producers in part explains why the FDF is not widely known among Aboriginal and Torres Strait Islander people (Lu Hogan and Professor Lewis Kahn, sub. 5, p. 3). However, a greater focus on natural resource management could be helpful in reaching more Aboriginal and Torres Strait Islander people (chapter 3).

Another barrier to Aboriginal and Torres Strait Islander people's participation is the lack of Indigenous Cultural and Intellectual Property (ICIP) protection. ICIP refers to all dimensions of Indigenous heritage and culture, including languages, cultural objects, performance and artistic works, and traditional scientific and ecological knowledge. Current laws provide limited and fragmented protection for ICIP.

There is willingness and interest from Aboriginal and Torres Strait Islander people and many other participants in the FDF to apply Indigenous knowledges to build the resilience of the agricultural sector (Murawin 2022). However, concerns that Indigenous knowledges might be used by others for private gains without benefiting knowledge holders pose a barrier to the agricultural sector and FDF fostering Indigenous knowledge sharing partnerships and collaborations (Murawin 2022; Noongar Land Enterprise Group 2022, p. 11; Terri Janke and Company 2022).

6.3 How have Aboriginal and Torres Strait Islander people participated in the FDF to date?

All Australian governments have committed through the National Agreement on Closing the Gap to develop policy in partnership with Aboriginal and Torres Strait Islander people. To date, the FDF has not met these ambitions. Across the Fund, there has been limited participation of Aboriginal and Torres Strait Islander people in the governance and design of the Fund or as delivery partners or beneficiaries. As a result, the FDF's potential to benefit Aboriginal and Torres Strait Islander people is not being realised.

The Fund has no formal mechanisms for shared decision-making

There have been no structured efforts to ensure Aboriginal and Torres Strait Islander people have input into the set up of the Fund or its programs. It appears Aboriginal and Torres Strait Islander people also do not hold roles in the ongoing governance of the FDF.

The *Drought Resilience Funding Plan 2020 to 2024* (p. 4) does include two principles that specifically refer to Aboriginal and Torres Strait Islander people:

- 10) recognise the diversity of people, businesses and landscapes involved in agricultural production, including Indigenous landholders
- 11) where appropriate, use or collaborate with existing community networks, Indigenous organisations and communities, natural resource management organisations, industry and farmer groups.

Whilst principle 10 is unclear in its intended application (chapter 3), these principles are reflected to some extent across other documents. Capability to engage with, and the likely benefits for, Aboriginal and Torres Strait Islander groups are included as criteria in several of the grant guidelines, for example, for the *Drought Resilience Adoption and Innovation Hubs* program, the grants component of the *NRM Drought Resilience Program*, the *Drought Resilience Leaders* program, and the *Networks to Build Drought Resilience* program (DAWE 2020b, 2020d, 2020a, 2020g). However, it appears that these principles have led to mixed success in facilitating Aboriginal and Torres Strait Islander people's participation.

Genuine engagement and partnership building has been inconsistent

DAFF has acknowledged that engagement during the foundational programs was intentionally limited due to caution around rushing into implementation without appropriate consultation (DAFF, pers. comm., 27 July 2023). Across programs, there have been mixed levels of engagement, and few examples of strong partnerships.

Candidates to host the Hubs were assessed on their capacities to consult appropriately with Aboriginal and Torres Strait Islander organisations and communities, incorporate Indigenous research, development, extension, adoption and commercialisation (RDEA&C) needs, and foster increased cultural awareness and knowledge sharing (DAWE 2020b). However, in practice they have undertaken varying levels of engagement (Murawin 2022, p. 37) and there appears to be few strong partnerships. This is due in part to varying capabilities and capacities across the Hubs (Lu Hogan and Professor Lewis Kahn, sub. 5, p. 3). Strategies to facilitate engagement have included appointing a First Nations Director or a First Nations Knowledge Broker (Northern Hub, sub. 11, p. 5; SQNNSW Hub, sub. 24, p. 7), having an Aboriginal grower group as a consortium partner (GGA and the SW WA Hub, sub. 30, p. 6), and running a specific Aboriginal and Torres Strait Islander enterprise program (TNQ Drought Hub 2023).

The experience with the *Regional Drought Resilience Planning program* has also been mixed. In the foundational year, there was engagement with 83 different Aboriginal and Torres Strait Islander groups and

organisations, although DAFF notes that these were concentrated in some regions (DAFF, pers. comm., 27 July 2023). In some cases, there appears to have been genuine collaboration with Aboriginal and Torres Strait Islander people. For example, the Torres Cape Indigenous Council Alliance was engaged to lead the development of the Regional Drought Resilience Plan in the Torres and Cape Region (RECoE, sub. 38, p. 8). In other cases it was not evident that an appropriate level of engagement with Aboriginal and Torres Strait Islander groups had taken place (DAFF, pers. comm., 29 August 2023).

In developing engagement processes, the FDF and its programs need to recognise the already heavy engagement load Aboriginal and Torres Strait Islander people are experiencing (TAS Farm Innovation Hub, sub. 39, p. 2). The Fund should limit or avoid programs that have short-term funding and relatively short time frames for development, which limits the capacity for meaningful engagement, relationship building and shared decision-making (Northern Hub, sub. 11, p. 5; NRMQR, sub. 23, p. 3; TAS Farm Innovation Hub, sub. 39, p. 2; University of Adelaide, sub. 32, p. 3; Vic Drought & Innovation Hub, sub. 28, pp. 5–6).

Little funding has gone to Aboriginal and Torres Strait Islander organisations and activities

Only a small proportion of funding has gone to supporting Aboriginal and Torres Strait Islander people and organisations. Ten grants amounting to approximately \$1 million have been awarded to Indigenous led organisations (table 6.1). This amounts to less than 0.9% of the total funding available for grant rounds.⁸

Table 6.1 – Grants awarded to Aboriginal and Torres Strait Islander organisations^a

Program	Grantee	Description	Amount
Natural Resource Management Drought Resilience Program	Bigambul Native Title Aboriginal Corporation RNTBC	Recruitment and training of personnel to lead cultural burning and ecology rejuvenation demonstrations, information sessions, and workshops.	\$190,740
Innovation Grants	First People of the Millewa Mallee Aboriginal Corporation Victoria	Research into and promotion of drought resilient native crops for use as gluten free flour and food.	\$45,455
Networks to Build Drought Resilience	Mallee District Aboriginal Services Limited	Refurbishment of a meeting shed to facilitate year-round meetings, knowledge sharing and connection building.	\$136,420
Networks to Build Drought Resilience	Outback Academy Australia Limited	Four regional events and an online national event to connect Aboriginal and Torres Strait Islander farming communities and allow for information sharing and adoption of industry/government provided information.	\$146,966

⁸ This is based on the total value of awarded grants as of September 2023 for: *Drought Resilience Innovation Grants*, *NRM Drought Resilience Program – Grants*, *Drought Resilience Soils and Landscape*, *Extension and Adoption of Drought Resilience Farming Practices Grants*, *Long-term Trials of Drought Resilient Farming Practices Grants*, *Drought Resilience Leaders*, *Networks to Build Drought Resilience*, and *Helping Regional Communities Prepare for Drought Initiative* (DAFF 2023f, 2023e, 2023d, 2023l, 2023g, 2023j, 2023m; FRRR 2023a, 2023b).

Program	Grantee	Description	Amount
Networks to Build Drought Resilience	Saltwater Country Ltd	A project to improve the skills, knowledge, and social and professional networks of Aboriginal and Torres Strait Islander station workers.	\$145,316
Helping Regional Communities Prepare for Drought	Wee Waa Local Aboriginal Land Council	Delivery of events that promote culturally significant drought resilience techniques, such as cultural burning workshops, formal training, and informal activities through caring for Country drop-in sessions.	\$61,960
Helping Regional Communities Prepare for Drought	Ngarrindjeri Empowered Communities	Elders sharing knowledge and cultural practices to build social connection and social and economic resilience for Ngarrindjeri women.	\$48,655
Helping Regional Communities Prepare for Drought	Many Mobs Indigenous Corporation	Support for a cultural festival to build social connection and longer-term community belonging.	\$45,100
Helping Regional Communities Prepare for Drought	Woorabinda Aboriginal Shire Council	Delivery of capacity building activities and field training to the Woorabinda Rangers and Youth Development Program to increase knowledge of drought preparedness.	\$42,000
Helping Regional Communities Prepare for Drought	Torres Cape Indigenous Council Alliance	Delivery of a water education program and implementing a water security plan to increase skills, knowledge and understanding of drought risks.	\$193,798
Total			\$1,056,410

a. This does not include the two 'enabling activities' to fund the Murawin and Terri Janke and Company reports which had no on-ground impact.

Source: DAFF (2023m, 2023l, 2023d); FRRR (2023a, 2023b).

In addition, about \$700,000 worth of grants have enabled non-Indigenous organisations to partner with Aboriginal and Torres Strait Islander people including for a seeding project of native grasses and shrubs, a bushfoods festival, a Bush Tucker Garden and walking trail, and a community leadership program (DAFF 2023m, 2023l, 2023d; FRRR 2023b, 2023a).

6.4 What improvements could be considered?

It is important that Aboriginal and Torres Strait Islander people define their own goals for their participation in the FDF and the outcomes they want to achieve. To support this, Aboriginal and Torres Strait Islander people should have meaningful input into Fund governance, engagement strategies, program design and delivery, and how Indigenous knowledge could be shared (Victorian DEECA, sub. 55, pp. 4–5). Shared decision-making should be embedded across the Fund, from governance to local program delivery.

For a Fund that is set up in perpetuity and has the potential to support long-term relationships, the most impactful place for these energies to focus is on building strong partnerships at a local level (FDF Consultative Committee, sub. 69, p. 5). Local partnerships have the potential to support genuine shared

decision-making with Aboriginal and Torres Strait Islander people, and especially the Traditional Owners in each area. If done well, this partnership building can enable collaboration beyond the remit of the FDF's programs. Place-based programs like the Regional Drought Resilience Planning program and the Hubs have the biggest potential for this. Improving processes, program development and governance of the Fund as a whole will set programs up for success at this local level.

Establishing an Aboriginal and Torres Strait Islander working group

The Fund does not currently meet the commitments to partnering with Aboriginal and Torres Strait Islander people for shared decision-making at a national level. Given there are no national agricultural-focused peak Aboriginal community-controlled organisations to partner with, the Commission recommends establishing an Aboriginal and Torres Strait Islander working group to work with the Department to improve the design and implementation of the Fund.

The working group should reflect the strong partnership elements defined in clauses 32-33 of the National Agreement on Closing the Gap. Although the working group cannot represent the full diversity of Aboriginal and Torres Strait Islander people, they nevertheless can bring their perspectives to driving further changes to the governance and design of the FDF. Rather than a resource to advise on proposals generated by others, the working group should be empowered to set its own agenda and be appropriately resourced to engage and deliver on it.

The Commission notes that DAFF has already undertaken initial scoping on an advisory group for the FDF, including whether there is an existing body that can be utilised for that purpose (DAFF, pers. comm., 27 July 2023). This could avoid a duplication of resources, however it would not be appropriate if the group does not have the capacity or interest to provide more than advice.

The form of the working group may need to change over time to remain fit for purpose. It should work towards embedding Aboriginal and Torres Strait Islander perspectives at all levels of the FDF and creating a strategy to guide, and the culture and skills to fully embrace, shared decision-making.

It would be a matter for the working group to define their own goals and the outcomes to support participation and benefits for Aboriginal and Torres Strait Islander people. Nevertheless, the Commission has outlined below some suggested areas the proposed working group may wish to consider.

Governance

It may be appropriate for the working group and Department to establish an Aboriginal and Torres Strait Islander strategy to frame the FDF's actions over the short, medium, and long term, and operationalise the Priority Reforms of the National Agreement on Closing the Gap. The strategy could include, for example, policies around engagement, partnership building, evaluation, and ICIP protection (discussed below). It could further include internal reforms for the FDF, including Aboriginal and Torres Strait Islander employment policies within the team at DAFF.

Separately, inquiry participants have suggested that Aboriginal and/or Torres Strait Islander perspectives on the Consultative Committee could bring an important addition to discussions influencing the development of Funding Plans and program design (ARLF, sub. 81, p. 5; CSIRO, sub. 8, p. 4; FRRR sub. 70, p. 10, NFF, sub. 64, p. 15; SA Hub, sub. 82, p. 3). This could include legislative changes to Consultative Committee membership requirements in section 36H of the *Future Drought Fund Act (2019)* (Cth). Alone, this change would be insufficient, and should be seen as only one part of embedding Aboriginal and Torres Strait Islander people and perspectives across multiple functions within the FDF.

Supporting better engagement and strong partnerships

Sustainable, meaningful and mutually beneficial participation depends on the quality of relationships at a local level. There should be capacity and flexibility for meaningful collaboration with Aboriginal and Torres Strait Islander people, including the Traditional Owners of each area.

Support for programs to develop strong partnerships and undertake better engagement require acknowledgement of the barriers. The TAS Farm Innovation Hub (sub. 39, p. 2) expressed concern that:

Any effort to enhance engagement needs to account for the existing heavy engagement load that weighs on Aboriginal and Torres Strait Islander people to consult and provide feedback on a huge range of government and non government initiatives, allow the time and space for communities to define their own goals within the FDF, recognise the diverse voices and perspectives of Aboriginal and Torres Strait Islander communities and to undertake this engagement underpinned by a long-term commitment to working together.

While engagement must ultimately be implemented by those in local areas, DAFF has a role in providing resourcing, support and expectation setting. Murawin's work with the Hubs on better engagement is an example of how DAFF can play a supporting role, as is the introduction this year of a standing agenda item during Hub Directors meetings to support Hub-to-Hub learning on working with Aboriginal and Torres Strait Islander partners (DAFF, pers. comm., 27 July 2023). Inquiry participants have further suggested providing funding and resources to Aboriginal and Torres Strait Islander organisations, the Hubs and other relevant organisations to specifically support engagement (FRRR, sub. 70, p. 10, Lu Hogan and Professor Lewis Kahn, sub. 62, p. 6; NACC NRM, sub. 21, p. 5; NLN, sub. 18, p. 3; NRM Regions Australia, sub. 51, p. 7; NRM WA, sub. 13, p. 4, SA Hub, sub. 82, p. 3). Suitable Monitoring, Evaluation, and Learning (MEL) plans for programs can further support these needs through flexible indicators that include a focus on community collaboration and relationship building. Longer-term timeframes would also facilitate relationship building (Northern Hub, sub. 11, p. 5; TNQ Hub, sub. 33, p. 3; University of Adelaide, sub. 32, p. 3; University of Melbourne, sub. 48, p. 2).

Coordination of engagement efforts – between different departments at all levels of government, Hubs, and other organisations – could also assist in reducing the consultation load experienced by Aboriginal and Torres Strait Islander people. Similarly, DAFF could provide more guidance about how Hubs and other stakeholders can meaningfully engage with and leverage existing networks rather than duplicating relationships, such as those developed by NRM groups (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 6; NACC NRM, sub. 21, p. 5; NFF, sub. 64, p. 15; NRM Regions Australia, sub. 51, p. 7; NRM WA, sub. 13, p. 4; Rangelands NRM Coordinating Group, sub. 50, p. 8).

As per the recommendation from Murawin (2022), and echoed by The Mulloon Institute (sub. 6, p. 3), Hubs could establish Aboriginal and Torres Strait Islander advisory groups. DAFF could facilitate this through additional funding for the development and ongoing support of these groups, and/or consider including them as a requirement for future funding. A resourced advisory group rather than a sole First Nations Director or Knowledge Broker would be better placed to deliver the other recommendations contained in Murawin's report (box 6.3). Any advisory group should align with strong partnership principles.

Box 6.3 – Murawin recommendations

Murawin made the following recommendations based on its engagement with the Hubs and Aboriginal and Torres Strait Islander people in their areas:

1. All Hubs need to establish First Nations Advisory Groups drawn from Aboriginal and Torres Strait Islander stakeholder groups and communities in each Hub area. This will create and support representative and appropriate guidance for Hub activities to inform and enrich the work of each Hub in achieving their operational and program goals. This would further enable each Hub to seek and capture the views of First Nations peoples on each Hub's RDEA&C priorities.
2. The RDEA&C priorities need to be founded on principles of Caring for Country to increase community and industry resilience to drought and climate change. The focus cannot continue to be purely on using the land to create revenue.
3. A mechanism that situates the RDEA&C priorities in a localised context at the Hub scale needs to be developed. Equally important is giving the Hubs a means of providing feedback on the priorities, thereby creating a two way dialogue at the national and local scale. This will result in optimal outcomes for the stakeholders the Hubs work alongside, including First Nations peoples.
4. Relationships founded on transparency, reciprocity, and respect need to be built between First Nations peoples and primary producers.

Source: Murawin (2022).

Improving Monitoring, Evaluation and Learning

MEL is important to ensuring transparency, accountability and continual improvement. Whilst there are Aboriginal and Torres Strait Islander-specific indicators in some FDF program MEL plans (DAFF, pers. comm., 27 July 2023), improving the MEL framework and processes will support better targeted monitoring, and useful evaluation and learning. It would also contribute to the important work of publicly highlighting Aboriginal and Torres Strait Islander-led agricultural and land management success stories (KPMG 2023, p. 14; Massy, Hill and Wolfgang 2023, p. 69).

The standards and practices of the Indigenous Evaluation Strategy (PC 2020a) (box 6.4) could be integrated into the FDF MEL Framework. As per the Strategy, there may be a question of prioritising the limited evaluation resources to certain programs with most current and/or future potential relevance to Aboriginal and Torres Strait Islander people. Each program's MEL plan should be fit for purpose and bring on board the most relevant partners. Each of the Hubs' MEL plans, for example, should be created in partnership with local Aboriginal and Torres Strait people, and could best be done with advisory groups (discussed above).

Greater resourcing and capability building may be necessary to support its implementation. This could build on the FDF staff Community of Practice established by DAFF this year, which has ambitions to lift internal capability, explore links with key organisations and people, and share materials through Hub and other networks (DAFF, pers. comm., 22 August 2023).

Box 6.4 – Indigenous Evaluation Strategy

The Indigenous Evaluation Strategy was developed in response to a long history of ineffective evaluations of policies concerning Aboriginal and Torres Strait Islander people, and to the National Agreement on Closing the Gap. It sets out a new standard for government departments and agencies and reorients evaluation efforts to centre Aboriginal and Torres Strait Islander people, perspectives, priorities and knowledges throughout the policy cycle. It argues that evaluation should:

- be designed early in policy cycles
- collaboratively involve Aboriginal and Torres Strait Islander people throughout, including in the collection, interpretation, and reporting of data
- include a combination of both qualitative and quantitative measures and draw from both Western and Indigenous methodologies.

The extra time and resourcing devoted leads to processes that are more culturally safe and results in evaluations that are targeted at areas of most interest to, and more useful for, Aboriginal and Torres Strait Islander communities.

Source: PC (2020a).

Developing policies to protect Indigenous Cultural and Intellectual Property

While there are limited legal protections for ICIP in Australia (section 6.2), there are examples of institutions developing guidelines for their sectors. For example, the *AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research* (AIATSIS 2020), the *Our Knowledge, Our Way in Caring for Country* report (Woodward et al. 2020), and the *Protocols for using First Nations Cultural and Intellectual Property in the Arts* (Australian Council for the Arts 2019) set out standards, protocols and guidelines for the use and sharing of Indigenous knowledge in research, land and sea management, and the arts respectively.

The FDF has an opportunity to establish its own protocols for knowledge sharing. While a protocol document cannot on its own guarantee the protection of knowledge, it can inform policies of engagement, become part of requirements in grant guidelines, and can shape clauses in legally binding contracts (Terri Janke and Company 2022, p. 8). This would go some way to developing cultural capability in the FDF and its partners, contribute to greater protections for Indigenous knowledges and more appropriate practices for engagement and partnership building. It could also increase willingness amongst Aboriginal and Torres Strait Islander people to partner with, participate in, and share knowledge through FDF programs.

ICIP policies have particular relevance for knowledge sharing and could be integrated into the proposed knowledge strategy (recommendation 3.4). This strategy should ensure that free, prior, and informed consent is given and that Traditional Owners retain real and ongoing shared decision-making over how it is shared and used.

Making grant rounds more accessible

The working group could also consider ways of making grants processes more accessible. Barriers such as short time frames affect Aboriginal and Torres Strait Islander organisations, as they do other small organisations (chapter 2). Providing flexibility for Aboriginal and Torres Strait Islander applicants around

some grant criteria, such as the requirement of co-investment, would also make the process more accessible (GGA and SW WA Hub, sub. 86, p. 11; PIRSA, sub. 53, p. 5; TNQ Hub, sub. 88, p. 7).

The working group and Department may also consider it appropriate to establish specific funding streams for Aboriginal and Torres Strait Islander people and organisations (GGA and SW WA Hub, sub. 30, p. 6; JCU, sub. 83, p. 2; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 6; TNQ Hub, sub. 88, p. 7). This could ensure that grant funding reaches Aboriginal and Torres Strait Islander people and provide them with the power and autonomy to form partnerships. Governments' Indigenous Procurement Policies have shown that such targeting can facilitate growth of Indigenous business sectors (Evans and Polidano 2022; Terri Janke and Company 2022, p. 25). Specific funding streams may also serve as an opportunity to pilot other policies aimed at removing barriers to Aboriginal and Torres Strait Islander people accessing the Fund or as a way of including activities or organisations that may otherwise be excluded from other FDF programs. For example, the Northern Hub called for a targeted program for resilience in wild harvesting, noting that 'both the issues and the extension methodologies are sufficiently different to the rest of the Hub's activities that it requires a separate program logic and MEL framework' (sub. 84, p. 7).

However, as with Indigenous Procurement Policies, eligibility criteria come with their own challenges (Terri Janke and Company 2022, p. 25), including locking out organisations that do not wish to publicly identify as Aboriginal and/or Torres Strait Islander. The creation of any specific funding streams should not exclude Aboriginal and Torres Strait Islander applicants from other funding streams or lessen the efforts to make the full suite of FDF programs accessible to Aboriginal and Torres Strait Islander applicants (JCU, sub. 83, p. 2).



Recommendation 6.1

An Aboriginal and Torres Strait Islander working group

The Department of Agriculture, Fisheries and Forestry should establish an Aboriginal and Torres Strait Islander working group to partner with the Department to improve the design and implementation of the Future Drought Fund for the benefit of Aboriginal and Torres Strait Islander people.

7. Review of Fund programs

Key points

- * Investing in better climate information can lead to community benefits but there is no compelling reason to fund two overlapping tools. The Drought Resilience Self-Assessment Tool should be integrated into the Climate Services for Agriculture tool.
- * The Farm Business Resilience program enhances economic resilience but provides largely private benefits. In many cases, it may also be funding activities that would have occurred anyway. The program could be improved by tightening eligibility, requiring a co-contribution that reflects the level of public benefit and focusing more on natural resource management and practices leading to transformational change.
- * Regional Drought Resilience Planning has demonstrated potential to build local and regional capabilities in preparing for drought. Future planning and implementation could be strengthened through clearer guidelines for implementation pathways, governance and funding opportunities.
- * The Drought Resilience Adoption and Innovation Hubs are fostering regional collaboration but there is confusion about their purpose, responsibilities and governance.
 - The Department of Agriculture, Fisheries and Forestry should publish a statement of expectations to clarify the Hubs' roles and responsibilities.
 - Funding for each Hub should be contingent on a satisfactory mid-term performance review, completed by 2025-26.
- * The Department should pilot a challenge-oriented approach as part of the Innovation Grants program. The pilot grants would support innovation projects focused on addressing major industry and regional challenges.
- * The Drought Resilience Soils and Landscape program has great potential for producing public benefits due to its focus on activities enhancing natural capital. Alignment with the work of natural resource management organisations will avoid duplication and maximise benefits.
- * The Better Prepared Community programs help communities prepare for the social impact of drought. Support should be focused on the wider community and not duplicate activities available to farmers through other Future Drought Fund programs. Closer co-ordination with Regional Drought Resilience Plans could also improve results from the Helping Regional Communities Prepare for Drought initiative.

This chapter provides a high-level assessment and recommendations for Future Drought Fund (FDF) programs grouped under their four broad themes. It does not include the four most recent programs, as they are yet to become fully operational. The FDF's funding allocation across four themes and 19 programs is shown in figure 7.1. The *Better Practices* theme accounts for 51% (or \$203.4 million) of all Australian Government FDF funding to 30 June 2024, with the *Better Planning* theme accounting for 29% (\$116.8 million) and the remaining two themes each accounting for about 10%.

7.1 Better Climate Information

The *Better Climate Information* theme is intended to make climate information accessible and useful for farmers so they can understand their climate risks and build resilience. The theme consists of two programs: *Climate Services for Agriculture* (CSA) and the *Drought Resilience Self-Assessment Tool* (DR.SAT).

- Climate Services for Agriculture is a free interactive tool providing users with climate data, projections and adaptation information for long-term business planning. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Bureau of Meteorology (BOM) deliver the program with funding of \$29 million to June 2024.
- The Drought Resilience Self-Assessment Tool is a free resilience self-assessment tool offering farm-scale analysis in financial, personal and social, and environmental indicators. Deloitte Australia delivers the program with funding of \$9.9 million to June 2024.

The rationale for the Better Climate Information theme is sound

There is a sound justification for the Australian Government to support climate information for farmers.

First, providing climate information for farmers has strong public good characteristics (chapter 2). Accessible and reliable climate information reduces information barriers and supports farmers to better understand the risks of drought and climate change and improve decision making (OECD 2020; PC 2009). Inquiry participants pointed to the importance of accurate local climate information and tools that farmers can use to prepare for, manage and recover from the next drought (PIRSA, sub. 53, p. 4; Riverine Plains, sub. 29, att. 1, p. 6).

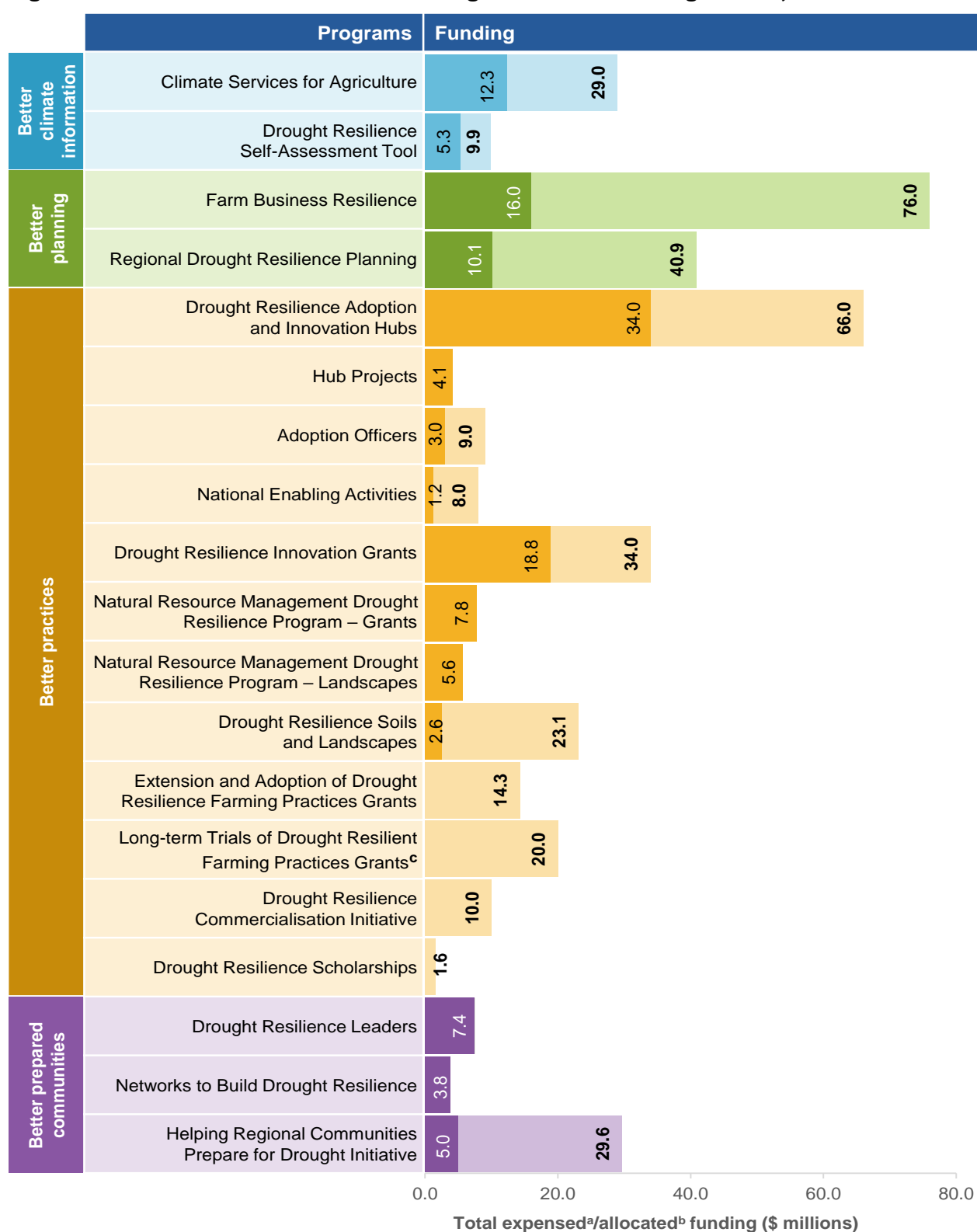
Second, the FDF's Better Climate Information theme intends to fill a gap in the market for climate services in the agricultural sector. Climate services transform climate data into tailored products (for example, projections, trends, economic analysis, assessments, best practices, development and evaluation of solutions) (EC 2015; WMO 2015). While there are industry and state-based tools that provide drought-related information, the FDF's climate information programs are national services providing long-term projections and impact assessments.

But there are concerns with the climate tools

Funding two overlapping tools is inefficient

There does not appear to be a compelling reason why the FDF funds two, at times overlapping, tools.

While CSA and DR.SAT were designed for different purposes, they provide similar services (table 7.1). For example, both tools provide historical climate data and projections at a farm scale. They also both provide future impact assessments for certain commodities. CSA is the main source for climate information and projections used in DR.SAT.

Figure 7.1 – Australian Government funding of the Future Drought Fund, as of 30 June 2022

a. Total expensed funding is as of 30 June 2022. b. Total Australian Government funding allocated in the funding plan period of 2020-24. These figures do not include any state and territory government funding, or cash or in-kind contributions provided by delivery partners. c. Long-term Trials is funded to 2027-28. \$20 million is in the funding plan period of 2020-24.

Source: DAFF (2022b, p. 49).

Table 7.1 – Climate Services for Agriculture^a and Drought Resilience Self-Assessment Tool^b

	Climate Services for Agriculture	Drought Resilience Self-Assessment Tool
Target users	<p>My Climate View: Primary producers and farm advisers Broader users: Natural Resource Management (NRM) organisations, Indigenous land management, and decision-makers</p> <p>Application Programming Interface: Rural Research and Development Corporations (RDC), industry bodies and governments</p>	Primary producers
Climate data and projections	BOM provides historical data and seasonal forecasts and CSIRO and BOM produce future climate projections at a resolution of 5 km through Climate Change in Australia.	Climate data and projections are sourced from CSA.
Impact information/assessment/pathways	<p>The tool offers tailored impact assessments for production of over 20 agricultural commodities based on seasonal and long-term climate projections for medium and high emission scenarios.</p> <p>Users can change the climate and production settings at a farm and regional level to explore adaptation options in different scenarios.</p>	<p>Individual farmers can undertake self-assessment in three resilience domains: personal and social, financial, and environmental. The environmental resilience assessment includes 12 agricultural commodities.</p> <p>Based on resilience assessments, the tool offers links to a range of pathway options.</p>
Access to information	Information is free and publicly accessible.	Information is free, but farmers need to create an account to undertake an assessment.
Map view function	<p>An interactive map explorer view at local government, state and territory, and agriculture region level^c</p> <p>The map is also available in a satellite view of soil moisture and rainfall data over time.</p>	Bird's Eye View – an interactive satellite map view of soil moisture, vegetation and a greenness index of a farmer's property.

a. CSA's interface was re-branded into My Climate View in July 2023. b. DR.SAT's final version was released in November 2022. c. Map view explorer function is in a development stage.

Both tools are intended to provide information to help the agricultural sector prepare for and adapt to the impacts of drought and climate change. CSA serves a broad audience with climate data and long-term projections and delivers specialised impact assessments and adaptation pathways for over 20 agricultural commodities. By comparison, DR.SAT has a narrower focus on primary producers and provides environmental resilience information for fewer commodities. Users are required to create an account to use DR.SAT while CSA's information is publicly accessible (table 7.1).

Uptake of CSA and DR.SAT has been modest

The uptake of CSA and DR.SAT has been modest.

- DR.SAT's goal was to reach 2,000 users by July 2023. As at January 2023, it had over 800 user accounts (the tool was released publicly in December 2021).
- Over the same period, 6,300 users accessed the CSA platform (noting its development is still to be completed, due mid-2024) (DAFF, sub. 42, p. 7). Between January and June 2023, CSA gained an additional 3000 users (CSIRO, sub. 80, p. 8).

The Productivity Commission has heard several factors may have contributed to low uptake for the tools.

- There is limited awareness of the tools amongst potential users.
- Design features (such as the requirement to create an account) have discouraged some users from DR.SAT.
- Although farmers are the intended end-users for DR.SAT, the Commission has heard that better outcomes could be achieved if the tool was designed for advisers to farmers.

These problems stem, in part, from shortcomings in the co-design process. An appropriate co-design process can foster trust with users and tailor services to their levels of knowledge, capacity, capability and resources (Buontempo et al. 2018; Porter and Dessai 2017; Swart et al. 2017).

Participants in the inquiry stressed the importance of sufficient time for co-design (Ag Excellence Alliance, sub. 19, p. 1; Coutts J&R, sub. 68, p. 2). However, time constraints and an expansion in scope created difficulties. The development schedule set by the Department meant that the CSA prototype was developed within six months using existing climate information and without market testing to identify the preferences of likely users. A subsequent change in the target users for the platform – from primary producers and advisers to a more diverse group including NRM organisations, banking and finance professionals, and agricultural suppliers – further complicated design (DAWE 2021a, pp. 18–19). The Commission has heard that some users wanted advanced technical data, while others preferred a simplified interpretation of climate data and impact assessment.

For DR.SAT, a co-design approach was deployed, including a user needs assessment for small and medium sized farm businesses. However, despite these efforts, inquiry participants have questioned the relevance of some of the information provided to farmers and the choice of intended users.

[The DR.SAT tool] ... is high level and generic so as to be nationally relevant, but does not provide useful guidance or insight at the local/regional level. (Lu Hogan and Professor Lewis Kahn, sub. 5, p. 2)

... the tool may be best targeted at agronomists and agricultural consultants, who provide farmers with their long-term agronomic advice. This demographic would be best positioned to drive adoption at the farm level, in the regions they service. (NFF, sub. 17, p. 12)

There is scope to improve the Better Climate Information programs

There have been recent developments in the adoption of the climate information tools. For example, CSA has been re-designed through enhanced user engagement (DAFF 2022b; DAWE 2021a; Fleming et al. 2022; Queensland Government 2022b; SA Government 2022c). For instance, the South Australian Government indicates that:

There has been excellent engagement and progress with the Climate Services for Agriculture (CSA) team to develop a version of CSA which presents regional scale climate information. (SA Government 2022c, p. 7)

Given the CSA's 'multiple' provisions – a platform for information, a decision support tool and a source of data – the CSA team has also shifted the focus of its activities towards awareness and adoption. The team has been collaborating with the *Drought Resilience Adoption and Innovation Hubs* and state and territory governments (in relation to the *Regional Drought Resilience Planning* program) to improve user capability.

The CSA program will continue to build its relationships with other programs. To date CSA has been engaging with the Drought Resilience Hubs and has developed its train the trainer courses with them (Southern Queensland, Northern NSW Hub and North Queensland Hub). The program is establishing relationships with other programs and is discussing with the Queensland Farm Business Resilience Program how CSA training can be integrated into their program. (CSIRO, sub. 80, p. 9)

There have also been efforts to improve alignment of tools and collaboration across jurisdictions. For example, the CSA team is collaborating with the WA Department of Primary Industries and Regional Development to explore their use of the CSA application programming interface service (extensive, detailed back-end data provision) which would allow users to deploy CSA data and insights in their own apps or products (CSIRO, sub. 80). And the Commission has heard that some states are considering integrating DR.SAT into their Farm Business Resilience programs (Tasmanian Government 2022; Victorian Government 2022b; WA Government 2022b).

As the CSA program evolves, there will be further opportunities to refine and tailor services for end users. For example, the Commission heard from intensive industries that the CSA tool could be expanded to provide producers with information to reduce risks to livestock, such as heat stress (APL, sub. 76, p. 7).

Integration of DR.SAT into CSA

The Commission recognises that the two climate information tools were developed with different purposes. However, funding two tools risks creating unnecessary costs and uncertainty.

In the interim report, the Commission sought feedback on whether DR.SAT should be integrated with CSA. Inquiry participants generally supported this proposal (FDF Consultative Committee, sub. 69, p. 3; Lu Hogan and Professor Lewis Kahn, sub. 62, p. 7; SA Hub, sub. 82, p. 3). For example, the South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 3) noted that:

... 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.

Some inquiry participants pointed to the potential role of DR.SAT in sharing information related to natural resource management practices (NFF, sub. 64, p. 11). However, other participants noted the drawback that users of DR.SAT are required to create an account and input farm specific information to undertake a self-assessment and access pathway information. This has created privacy concerns for some users. Further, CSA provides much of the information contained in DR.SAT, but for a wider range of end-users and for a larger number of commodities.

On balance, integration could reduce program costs and lead to greater take-up, if aligned with the needs of users. The Commission is therefore recommending that DR.SAT be integrated into CSA.

To transition to a single tool, the Department, in collaboration with delivery partners, could consider options for integrating the tools, including what functions from DR.SAT could be incorporated into CSA. Inquiry

participants noted that the integration process should be undertaken with independent experts and end users (CSIRO, sub. 80, p. 9; NFF, sub. 64, p. 16). For example:

To determine which elements of the DR.SAT should be incorporated into the consolidated tool, the Department should convene an industry working group including farmer managers, agronomists and relevant agribusiness consultants. This will ensure the consolidated tool addresses any duplication and better accounts for industry-specific trends, such as farmers' current technology portfolio, information channels, programs and records they access to inform their planning. (NFF, sub. 64, p. 16)

Moving to a single tool should improve the efficiency and effectiveness of the FDF's Better Climate Information stream. However, if uptake continues to remain modest, the Department could consider whether further funding for an information tool is warranted. An alternative option would be for the Department to fund climate information but for the private market to develop the tools that would be used by the agricultural sector.

An enhanced Monitoring, Evaluation and Learning plan for the new CSA

The Monitoring, Evaluation and Learning (MEL) plan for CSA has been developed in line with the FDF's MEL framework. Delivery partners of CSA have regularly reported quantitative data as well as qualitative information relevant to outcomes (Coutts J&R, sub. 68, p. 3; Southern NSW Innovation Hub, sub. 74, p. 5).

Hub case studies come into their own for practical examples and should be used as an example here [MEL reporting] – and also the Narrative report that was prepared for the CSA program. (Southern NSW Innovation Hub, sub. 74, p. 5)

A positive aspect of the CSA MEL plan is that it outlines a clear linkage from program activities and outputs to short- and medium-term outcomes. Although the short- and medium-term outcomes would be expected to contribute to long-term objectives, the current MEL plan does not include long-term outcome indicators or reporting requirements.

Responsibility for reporting on long-term outcomes should be incorporated into the program's MEL plan. The Department should also identify appropriate measures, both quantitative and qualitative, to determine the long-term effectiveness of the CSA program (chapter 5). This could include, in addition to measuring the uptake of the tool, the extent to which the tool has spurred long-term, transformational changes and/or informed decisions for building drought and climate change resilience in agricultural systems and communities. Moreover, the MEL plan should also be updated to enable an assessment of the effectiveness of the proposed integration of DR.SAT into CSA.



Recommendation 7.1 Improving the Better Climate Information programs

The Australian Government should discontinue funding for the Drought Resilience Self-Assessment Tool and integrate those elements of greatest value to end users into the Climate Services for Agriculture tool. The Department of Agriculture, Fisheries and Forestry should monitor use of the new tool to determine if support should continue.

7.2 Better Planning

The *Better Planning* theme consists of two programs:

- *Farm Business Resilience* (FBR)
- *Regional Drought Resilience Planning* (RDRP).

Almost \$117 million has been allocated to these programs over the four years of the current Funding Plan (\$76 million for the FBR program and \$41 million for the RDRP program). The two programs account for almost 30 per cent of FDF funding. However, the initial roll out of both programs was delayed and only \$26 million had been spent by 30 June 2022 (figure 7.1).

Farm Business Resilience program

The FBR program is the largest of the FDF's programs. It supports farmers to manage risk by providing subsidised training in strategic business skills, planning for risk (including drought risk), natural resource management, and personal and social resilience. The program also funds tailored business plans for individual farms.

The FBR program is delivered in partnership with state and territory governments, which provide matching funding. The state and territory governments tailor delivery of the program to specific regional or industry priorities and to leverage their existing expertise and delivery mechanisms. The program aligns with a shared responsibility between the Australian, state and territory governments under the National Drought Agreement to encourage robust risk management and develop capabilities that improve farmers' business decision-making and resilience.

The FBR program has generally been well received, with positive participant feedback across all states and the Australian Capital Territory (TAS Farm Innovation Hub, sub. 89; Tasmanian Government, sub. 52; Queensland DAF, sub. 54; Agforce Queensland, sub. 66; TNQ Hub, sub. 88; NSW Farmers, sub. 91). For instance, the National Farmers' Federation (sub. 17, p. 11) said:

The Farm Business Resilience Program is an example of a FDF program with an effective, simple, and industry-aligned objective that has been well-executed to date. The NFF strongly supports creating a step-change in the use of farm business management skills to proactively manage drought risks.

As at 30 June 2022, 6,546 farmers had participated in the program across seven jurisdictions, with 538 farm business plans completed and 903 plans reviewed (DAFF 2022b, p. 13). Tasmania and Western Australia have had relatively modest uptake given their pilots commenced later. The Northern Territory has not yet commenced the program.

Government support for farm business training can be justified

While private training and advisory services are increasingly used by farmers in Australia, there may still be a case for direct government provision or subsidised support of these services.

Subsidising training and advice may be appropriate where farmers lack the information or awareness of the benefits of farm business resilience planning and therefore under-invest in it. Further, private services may not be accessible for some farmers, particularly if those farmers are remote or less profitable (Prager et al. 2016). Public funding could be appropriate where it addresses gaps in service delivery, especially for training with strong public good outcomes (for example, environmental sustainability) or where it allows farmers to access broader knowledge than would be provided through industry-specific training.

While there may be a market failure rationale for the FBR program, there are several reasons why the program may not be delivering an overall public benefit to the community.

First, the FBR program aims to provide farmers with business and risk management skills to help them sustain their productivity and profitability during drought. While improved farm productivity and profitability can enhance resilience to risks, including drought (OECD 2020; PC 2009), the benefits to the community from improved farm performance are likely to be small relative to the farmer's private benefit.

Further, it is conceivable that many farmers would undertake activities offered in the program, such as risk management and succession planning, without the need for government support. In principle, private incentives for these activities should be sufficient for adaption to drought and other climate risks:

Because the benefits of such adaptation measures are local and directly captured by farmers, self-interest, in many cases, will be a sufficient incentive for individuals to undertake adaptive measures; i.e. farmers may undertake actions when the private benefits they generate outweigh the costs they involve. (Ignaciuk 2015, p. 17)

Finally, there is a risk that government-provided services can distort prices and crowd out private investment in similar services (PC 2009). Farmers are unlikely to pay for private services if they know that free or heavily subsidised alternatives are available. Indeed, in some cases, the FBR program appears to have replaced private not-for-profit or commercial services with government-funded support (box 7.1).

To ensure the FBR program is delivering sufficient public benefits, the Department should consider improving the program, using three levers:

- tightening eligibility criteria to target farmers unlikely to undertake business planning activities
- requiring course content to focus on material that will have a broader public benefit
- adjusting the co-contribution to promote participation among targeted farmers and reflect public and private benefits.

Box 7.1 – What farm business support already exists

States and territories are expected to tailor the FBR program so that it expands existing services or fills a gap in existing programs (DAFF 2021a). Jurisdictions have largely engaged industry partners to build on existing programs. For instance, Dairy Australia was contracted to deliver its 'Our Farm, Our Plan' program for the dairy component of the program for several jurisdictions, including New South Wales, Victoria, South Australia and Tasmania.

The program was originally developed in 2019 and was already operating at a national level, providing strategic planning and risk management for farmers, when the FDF commenced. The FDF has since sponsored the program. The South Australian Government claimed that the FDF's sponsorship of an industry program has helped ensure high participation:

It is thought in the dairy sector this is a reflection of the extensive investment by industry in industry led extension has assisted in the uptake of places ... There is also an advantage in the use of a known industry developed training package such as 'Our Farm Our Plan' which is developed for and respected by industry. (SA Government 2022a, p. 1)

Box 7.1 – What farm business support already exists

Feedback from the foundational year suggests programs may be competing with other services already on offer. For example, in Western Australia:

There was some confusion about FDF programs and a perception of competition with other private sector and industry programs. This resulted in an industry association not distributing information about the program to their members. This has since been addressed however, it is likely to have had an impact on take-up from one of the targeted industries. (WA Government 2022a, p. 7)

And in South Australia, it was noted by Livestock SA that the FBR was competing with other programs already on offer:

... the FDF's Farm Business Resilience program came in over the top of Kangaroo Island's Farm Business Management Program, PIRSA's Red Meat and Wool Livestock Enterprise Planning and the SA Arid Lands Building Pastoral Sustainability Project. All had differing incentives (or costs) of involvement. This resulted in all providers failing to secure sufficient delegates to make each of their programs viable, wasted resources and confused producers. (sub. 26, p. 2)

Overlap was also raised as a concern in NSW:

Three delivery partners expressed concern that on occasion the program duplicated existing programs offered in their region. For example, business planning and advice workshops have been offered by other providers. (NSW Government 2022a, p. 8)

A tightened eligibility criteria

States and territories have considerable discretion about how they deliver their business training. The main guidance provided by the Department is that training is for viable businesses or those with the potential to be viable (DAFF 2021a). In New South Wales, the program is open to all agricultural sub-sectors, with three specialised streams for young farmers, farmers affected by floods, and the dairy sector (NSW Government 2022b). South Australia and Queensland direct their efforts towards specific sub-sectors such as dairy and horticulture (SA Government 2022b). Western Australia prioritises geographic regions identified as requiring assistance (WA Government 2022b).

Further, jurisdictions commonly impose minimal criteria on participants. In terms of the characteristics of those that participated, New South Wales noted that they were generally younger and on smaller farms than the average farmer in NSW, and around half of participants were farmers earning annual gross average income of \$250,000 or above (NSW Government 2022a, p. 5).

It appears that these state-by-state approaches are not closely targeted at those farmers most likely to benefit from publicly funded services. Experienced and high earning farmers would likely have the resources and knowledge to seek out extension opportunities and private business management services and should therefore not require government-funded services.

For the next iteration of the program, jurisdictions should introduce a tightened eligibility criteria. The criteria could be tailored to the program and industry contexts of each jurisdiction, but consideration should be given to preferencing:

- farmers in isolated or less profitable areas where private services may be less accessible
- new or young farmers who have had less experience with drought
- small landholders with fewer resources to invest in private services
- particular sectors within agriculture that are less likely to engage with private services or sectors assessed to have less drought resilience.

In tailoring this approach, states and territories could consider using a drought resilience self-assessment module (jurisdictions could select the method or tool most appropriate for their needs). This component is required through the program framework and involves participants undertaking a farm resilience/performance assessment before or during the program to benchmark progress and tailor content to individual needs (DAFF 2021b). There may be scope to use it for screening participants in the program.

Focusing course content to generate greater public benefits

The Department requires jurisdictions to include core content with the potential to deliver significant public benefits, including natural resource management and farm risk management around adverse event preparation, climate adaptation and diversification. Evidence suggests farm-level training and participatory extension may improve the likelihood of NRM interventions having a positive impact (De Los Santos-Montero et al. 2020).

However, delivery of the program is through a flexible and unstructured approach. This makes it possible for farmers to opt out of some content in favour of content that provides more immediate economic benefits. For instance, coaches in NSW were given discretion to tailor content with minimal expectations for topics or content:

“Well, because [the program design] left it pretty loose. In the contract it says you’ve got to do so many group meetings, you’ve got to coach every fortnight and things like that. But, in a sense, there was no, ‘And we would like you to achieve these standard KPIs or outcomes’, that were predetermined.” (NSW Government 2022a, p. 21)

Indeed, some of the content provided in program reporting appears to have only tangential links to drought resilience, for instance:

- succession planning to assist farming families navigate the legal complexities and provide emotional support
- general encouragement to engage better accountants or advisors for business advice
- occupational health and safety risk management
- business coaching for an oyster farmer during a major biosecurity threat
- managing the risk of foot and mouth disease and lumpy skin disease for dairy farmers in future iterations of the program (NSW Government 2022d; SA Government 2022a; Victorian Government 2022a; WA Government 2022a).

This is not to suggest that better business management cannot support drought resilience. Transformational change on farms requires farmers to employ a forward-thinking, strategic approach, and business planning is a central element to this (OECD 2020).

However, there is a risk that generic business skills are being prioritised over other parts of the program that would lead to broader community gains and are less likely to be offered by private advisory services, such as natural resource management and innovative on-farm practices that can promote transformational change.

The Commission has seen limited evidence to suggest that all participants have engaged with this kind of content. Data to 31 March 2023 indicates that over 2,000 attendees have taken part in 385 events (training, coaching activities, workshops etc) that focused specifically on natural resource management training or

coaching activities (DAFF, personal communication, 29 August 2023). However, this is fewer than a third of all FBR participants that took part in the program in 2020-21 (noting that some NRM content may also have been delivered through ‘multidisciplinary’ courses) (DAFF 2022b).

Several participants have noted that FBR could provide greater support for environmental and NRM initiatives (Agforce Queensland, sub. 66; NFF, sub. 64; SA Hub, sub. 82). Participants also highlighted the benefits from the FBR coordinating with other areas of the FDF, such as the Hubs and climate information tools, to co-design content and connect farmers directly to extension activities and other resources in the Fund (Agforce Queensland, sub. 66; Northern Hub, sub. 84; SA Hub, sub. 82; TAS Farm Innovation Hub, sub. 89; TNQ Hub, sub. 88). The Department should work with states and territories to look for opportunities to strengthen these links.

There may also be scope to enhance the benefits of the program through a more structured peer networking component – during and after the course. The Commission has seen some evidence of success in some states developing networks between farmers to share knowledge and learning – this component could be extended to ensure these networks persist post-program.

Provision of this content could be through standalone mandatory courses or as content incorporated throughout the program. As NSW Government noted:

The program could consider providing more structure around the coaching, such as expected modules or sessions ... More structure may limit the individualised nature of coaching but could also provide more consistency. (NSW Government 2022a, p. 22)

Whatever structure is chosen, content could still involve business management training, but this should not be the focus of the program.

The Commission has heard that emphasising NRM content may lead to duplication of programs and services already delivered in some jurisdictions. This risk can be managed by ensuring states and territories are supported in identifying gaps through co-design with other FDF participants, such as Drought Resilience Innovation and Adoption Hubs and NRM groups (FDF Consultative Committee, sub. 69; NSW Farmers, sub. 91).

A co-contribution?

Requiring participants to contribute to the cost of training can ensure participants have a greater stake in the outcomes of training and increase the likelihood the course meets their needs. It may also reduce the risk of crowding out private offerings.

Most states require a co-contribution from program participants. However, the Commission understands that the contribution is generally minimal (about 5% of costs) and is disproportionate to the private returns for participating farmers. While training costs are generally estimated to be around \$10,000 per participant, some jurisdictions have set their participant co-contributions for business coaching at \$500 per farm business (for two participants per business), while Victoria has opted to waive participant contributions in most instances (DAFF, pers. comm., 29 August 2023).

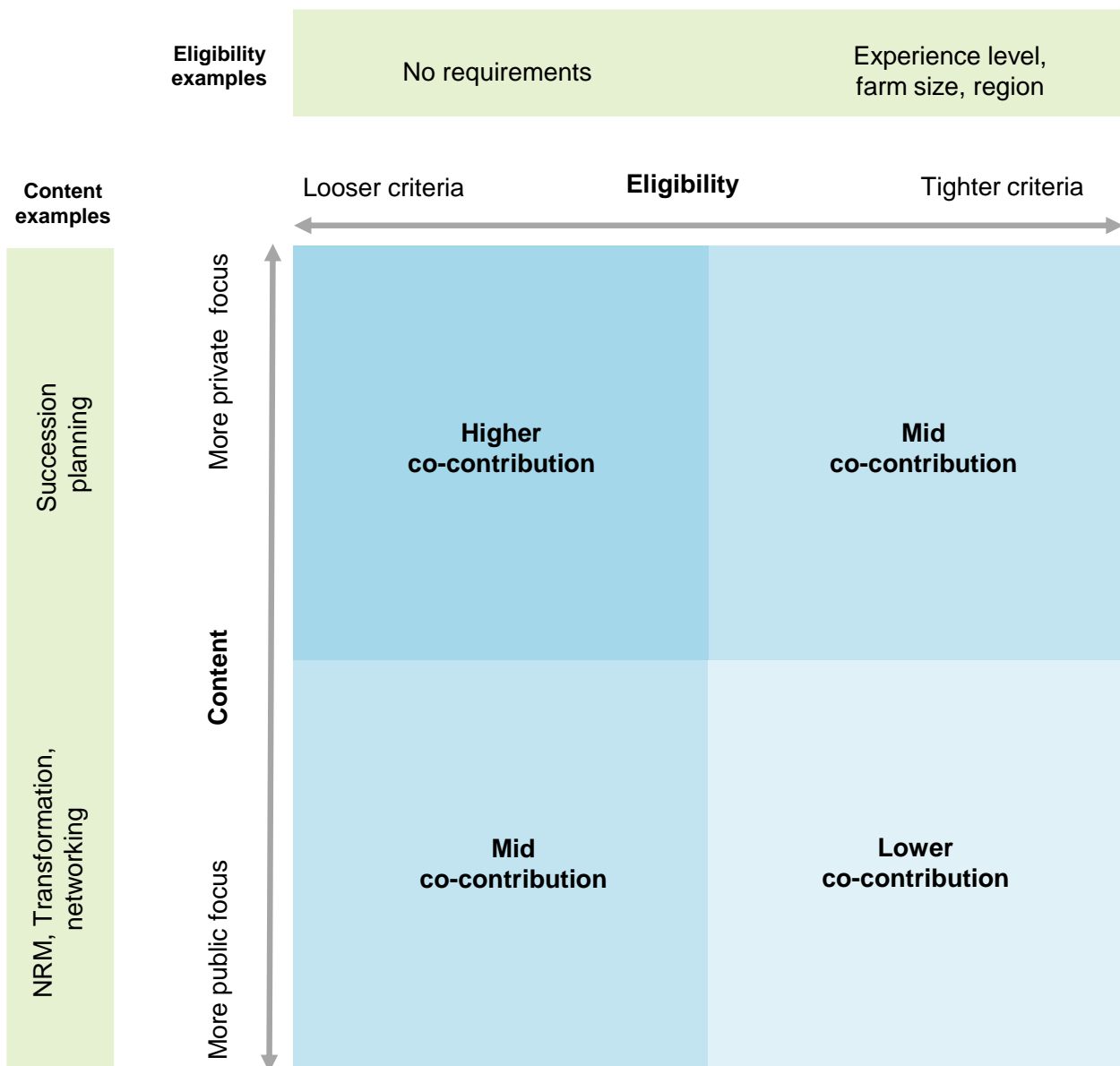
The Commission has heard mixed views from participants on the effect of a co-contribution. On the one hand, it provides the strong signals to participants mentioned above. On the other hand, it may deter some farmers from undertaking the training, even when they would benefit. There is also the challenge of the FBR competing with other publicly funded programs provided free-of-charge. As South Australia noted:

Looking at the grains industry they are well serviced over a long period of time at national level, by programs and products delivered through the Grains Research and Development Corporation. In addition, in many cases this training is provided free of charge to participants, with the FBR program competing against these well known, free offerings. (SA Government 2022a, p. 8)

Competing with other free services while also delivering flexible course content for participants is unlikely to result in a significant benefit for the Australian community.

Instead, the FBR should focus on balancing the co-contribution with the likely public and private benefits that can be achieved through the program, taking into account the characteristics of participants and the nature of course content. Some level of co-contribution should be required across all jurisdictions, given the private benefits derived from the program. However, to the extent that states and territories prioritise course content that will deliver a public benefit, there may be a justification for minimal co-contribution. This level could also be tailored to individual circumstances where tightened eligibility criteria are used. This would mean well-resourced, experienced farmers could still participate but would receive smaller subsidies to do so (figure 7.2).

Figure 7.2 – Matrix of co-contribution relative to public benefit



What does success look like for the FBR?

There is little evidence on the extent to which the FBR program has led to changes in farm management. That said, the outcome and evaluation reports for the first year of the program suggest that most participants *intend* to make changes, particularly changes to improve their economic situation (box 7.2). While this seems positive, the best measure of success is the extent to which the programs engender actions to strengthen drought resilience that would not otherwise have occurred.

The Commission believes that greater public benefits would come from tightened eligibility criteria, content focused on natural resource management and transformational change, and appropriately set co-contributions.

To the extent that these changes reduce the attractiveness of the FBR to some farmers, this should not be viewed as a failing. Greater targeting of participants and course content would generate greater community benefits and also make funding available for other areas of the Fund that are more likely to produce public benefits. The Department should therefore assess demand for the program after these changes have been made, with the possibility of reallocating funding to other FDF programs.

Regardless, ongoing monitoring will be required to assess the effectiveness of the program. The MEL framework should focus less on outputs (such as participation and content delivered) and more on outcomes, such as behaviour change of participants over time and the extent to which the program can contribute to resilience. As noted in chapter 5, the Commission is recommending greater funding for MEL activities, and given the scale of the FBR program, some of that funding could be allocated to improved monitoring for the FBR.

Box 7.2 – FBR participants intend to make change

The outcome and evaluation reports from the first year of the FBR program indicate that some participants intend to make positive changes to their farm practices.

- In New South Wales, 67% of participants reported an increased likelihood of changing behaviour; 41% of these participants reported specific behaviour changes. 100% of participants in business coaching reported specific intentions to implement priority changes (NSW Government 2022b, p. 1).
- In Victoria, participants reported a significant improvement in their knowledge and skills in business planning, farm finances and risk management. In post-program surveys of grains, mixed farming, beef and sheep farmers, 94% of farmers indicated that they intend to and/or have made changes and/or improvements to their farm business because of the program (Victorian Government 2022b, p. 6).
- In Queensland, across all industries, there were 73 fully completed business plans with up to another 246 being completed. Many participants had not completed budgets nor developed a business plan before their participation (Queensland Government 2022a, p. 5).



Recommendation 7.2

Improving the public benefit of the Farm Business Resilience program

The Department of Agriculture, Fisheries and Forestry, in partnership with state and territory governments, should improve the design and delivery of the Farm Business Resilience program by:

- tightening eligibility criteria for participants to ensure services are filling genuine gaps in training for farmers
- requiring course content to prioritise natural resource management and transformational practices. Business management training that offers largely private benefits should not be the focus
- requiring co-contributions from program participants, adjusted according to eligibility criteria and course content
- ensuring monitoring and reporting provides sufficient detail to evaluate the program's effectiveness in building drought resilience
- considering the appropriate level of funding for the program, taking into account the likely public benefits and the alternative uses of funds.

Regional Drought Resilience Planning program

The pilot phase of the *Regional Drought Resilience Planning* program commenced in 2020-21 and involved the preparation of 19 regional drought resilience plans (figure 7.3). The pilot plans have included an assessment of drought vulnerability and resilience in the region and used quantitative and qualitative data to inform planning for actions to increase drought resilience. Each regional drought resilience plan is expected to:

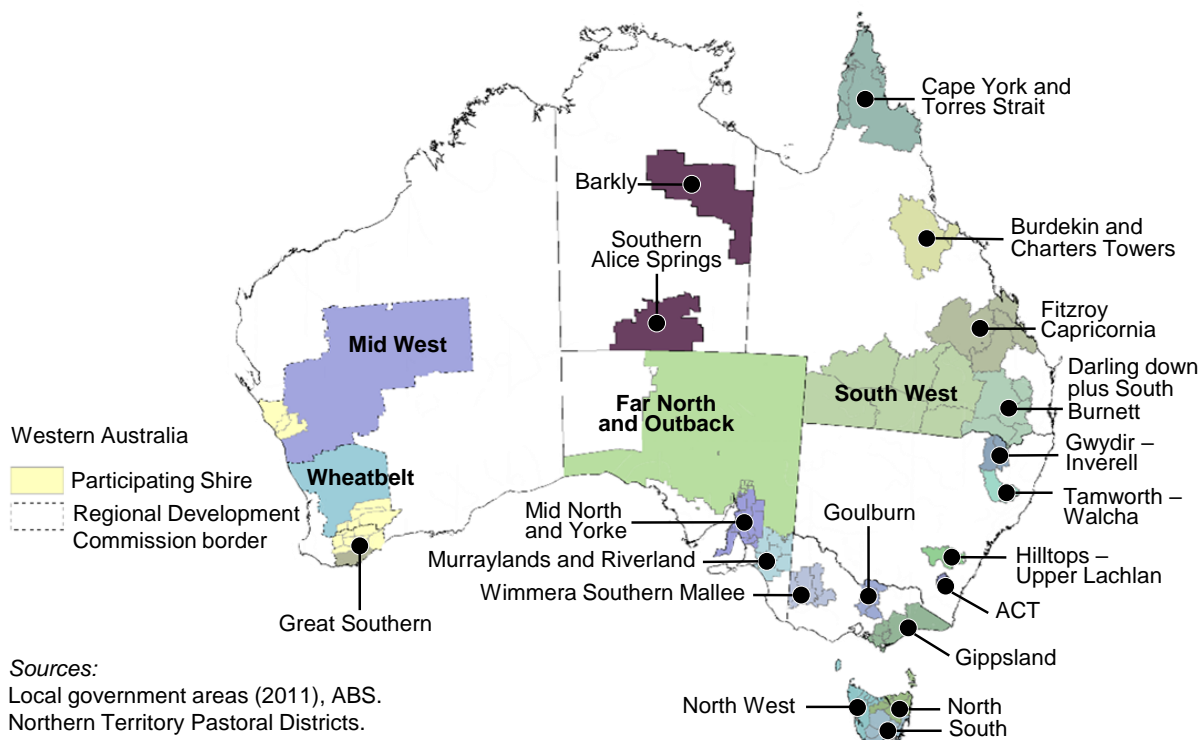
- identify actions to prepare for future droughts, concentrating on the agricultural sector and allied industries
- bring people together to share their local knowledge and perspectives
- adopt best practice approaches to resilience, adaptation and transformation
- build on existing planning
- draw out regional needs and priorities to inform future investments (DAFF 2023n).

Before their publication, regional plans are reviewed by CSIRO and approved by both the relevant state or territory minister and the Australian Government Minister for Drought. The FDF provided up to \$600,000 for each of these plans. Australian Government funding for pilot year programs could only be used for planning and not for undertaking any activities identified in the plans (DAFF 2021b, p. 3). The program also involves state and territory government funding, with these arrangements varying by jurisdiction.

While most pilot plans have reached the draft stage, only Victoria's plans have been finalised.

The Department is now negotiating with the states and territories on the second stage of the program, including expanding the plans to more regions and the delivery of grant funding to implement actions identified in plans. The Australian Government is providing implementation grants of \$150,000 per plan for eligible regional consortia, matched by the states and territories to a maximum of \$300,000 per plan (subject to individual agreements) (DAFF 2022c, p. 7). This funding will support initial implementation of RDRP actions but the FDF will not provide ongoing funding for this purpose.

Figure 7.3 – Regional Drought Resilience Planning program map^a
Foundational Year Regions



Sources:
 Local government areas (2011), ABS.
 Northern Territory Pastoral Districts.
 Western Australian participating shires.

Original map produced by ABARES

a. Plans have commenced for 19 of the 23 regions identified (DAFF 2022b, p. 6).

Source: DAFF (2023n).

The benefits of a coordinated approach

The RDRP program facilitates coordinated action by multiple actors, including individuals, communities, industry, and governments. The program enables a nationally consistent approach to regional planning while allowing states and territories flexibility to deliver the program and regional communities to define their own priorities. Regional planning has brought stakeholders together to hear a wide range of views from local governments, Aboriginal and Torres Strait Islander groups and organisations, community service organisations, farming groups and agriculture representative bodies. CSIRO noted:

The RDR plans demonstrated an understanding that droughts affect not only farmers and landholders, but also other rural sectors and community segments. Most of the plans have engaged non-farm groups to some degree. (sub. 80, p. 10)

The NSW Government (2022d, p. 6) also highlighted the benefits of community engagement through the program:

Connections made through the engagement process have already allowed the Gwydir and Inverell region to progress one of their identified RDRP initiatives. They are partnering with Bindaree Beef (a large meat processor in the region) to develop and conduct engagement and training with their farmer supplier network of 4,000 farms to deliver a drought plan. This work clearly demonstrates the community’s engagement and support of the identified actions.

The coordination undertaken throughout the RDRP process across multiple actors is unlikely to have occurred without the program.

There are also benefits from the RDRP program that extend beyond the initial planning process, with several regions commissioning research that can inform broader policy development. One example of this is research commissioned in Western Australia which has identified the trends affecting all regions so as to develop long-term strategic planning and ideas for transformational change.

CSIRO's review of the draft foundational plans noted the potential for improvement. For instance, though plans were generally inclusive of diverse stakeholders, some required more engagement with the wider community to ensure a greater diversity of perspectives and shared ownership. CSIRO also noted that, despite evidence of extensive consultation, the knowledge and evidence derived from consultations could have featured more heavily in many of the plans.

These early signs are promising. That said, the pilot program has also revealed opportunities to refine the program's design, governance and implementation as it moves into its second phase.

The practical limits of local ownership

Regional drought resilience plans are intended to be 'locally owned' – developed and implemented by consortiums of local organisations (DAFF 2021b, p. 5). The planning process seeks to establish a community consensus on the vulnerabilities and opportunities for the region and the actions local organisations should take in response.

A challenge for the Department and jurisdictions is managing expectations for the program given the scope for regional plans to address a broad range of economic, social and environmental issues. The pilot program has shown that the actions recommended in regional plans can vary widely in terms of their appropriateness and feasibility for local planners (box 7.3).

Adding to this tension, the FDF provided little funding for communities to implement actions identified in the plans (discussed further below). While funding is available from other sources (such as state, territory and local government programs), without more defined pathways to implementation, there is a risk that plans will not be implemented. The Commission has found that regional planning often succeeds in fostering community debate but can be less successful in producing community action and support from state and territory governments (PC 2017).

Effective planning requires local planners to be aware of the broader drought policy landscape and have an idea of what is feasible to implement. Where issues identified by participants go beyond regional capabilities or responsibilities, planners should be aware of the pathways or options available to them. For instance, South Australia indicated that planning priorities need to be better informed by an awareness of national and state drought policy:

This is a potential area for future engagement and communications focus for both the Australian and State Government in terms of the current review of the National Drought Agreement. This will ensure that communities are aware of these policies and shared responsibilities, how they impact and enhance the farm sector, and community drought resilience. (SA Government 2022c, p. 9)

Further, planners should be given greater support to understand linkages with other FDF programs. The Commission has heard there are challenges with this:

There was confusion around where the plans fit within the FDF overall program and there is a need to provide a clear document / diagram / explanation of these to the new regions ... For example, there was a comment about the lack of regionally specific climate data, which is the very thing that CSA is intended to provide. (Queensland Government 2022b, p. 30)

Box 7.3 – Activities identified in regional plans

The actions identified in draft foundational plans vary widely. The most frequently identified actions across plans relate to building drought resilience in:

- communities (for example, health and community infrastructure)
- regional economy (for example, diversification and workforce planning)
- water systems (for example, infrastructure and management)

Other action groupings include governance, knowledge and physical connectivity, agriculture including research and development, and Landscapes and the environment (RDR foundational plans; DAFF, pers. comm., 1 September 2023).

Australian, state and territory government support for activities outside FDF scope

CSIRO has noted that in many plans, proposed actions could provide more information on the local, regional, state, territory and federal roles relevant to implementation and ensure there is not an over-reliance on external sources of funding. This is particularly the case for actions relating to water infrastructure or regional economic development. Examples provided in finalised plans include:

- Wimmera Southern Mallee regional plan included an action to 'promote sufficient and affordable housing in the Wimmera Southern Mallee region' (Agriculture Victoria 2023b, p. 21)
- the Gippsland regional plan included an action to 'invest in skill development and digital technology for the manufacturing sector to implement and commercialise new products' (Agriculture Victoria 2023a, p. 48).

For the next funding plan, the Department should also work with states and territories to provide regional planners with clear guidelines on implementation pathways for resilience activities. This should include practical guidance for planners on how to approach regional priorities that fall outside their remit and require broader state, territory, or Australian Government support. This could be adapted from NSW's 'How to' manual that has been developed for future regional planning based on learnings from the pilot (NSW Government 2022d).

Further, the Australian Government and the relevant state or territory could consider providing a joint public response to each regional drought resilience plan as part of the Ministerial approval process. This could include feedback on feasibility of actions and if a plan raised policy issues outside its remit, a government response could also indicate if and how these issues may be addressed.

Accountability for plans

While co-design and local ownership are expected to shape the content of the plans, a lead organisation is needed to provide oversight and accountability for the process. The program framework provides little guidance on this, other than to specify that local government is the preferred project lead where possible.

Flexibility in ownership allows for variation in the size, capacity and ability of local government to take responsibility for the plans, as well as variation in the state and territory governance arrangements to support them. This has given rise to a variety of governance arrangements (box 7.4). While some approaches provided clear distinctions between accountability and delivery, there has been evidence of challenges in developing a governance structure that would endure beyond the planning process.

Box 7.4 – Pilot regions adopted different governance arrangements for planning

In **Queensland**, a single external delivery partner was employed to facilitate engagement and drafting of the plans in consultation with regional representatives. This had the benefit of pooling resources and reducing potential duplication.

In **New South Wales**, local governments were given responsibility to develop their own approach to planning and ownership, however the Department of Regional NSW provided resources and guidance on consistent governance arrangements, such as the establishment of Project Control Groups for each consortia to plan, deliver and report on outcomes.

In **Western Australia**, each region's Development Commission took a lead role in developing the plan, with oversight from a steering committee and support from a technical working group. Specialist advice was also contracted to support regional drought assessments for all foundational year plans.

In **Victoria**, Agriculture Australia took a lead role in establishing a governance structure and taking responsibility for the quality of the plans. Each region was responsible for the delivery of plans through a project team and consultation was led by a local reference group.

Source: Queensland (2022b); NSW (2022c); Deloitte (2022); WA (2022c).

Most states and territories have recognised the need for strengthened governance. For example:

Opportunities that have been identified to enable an effective delivery ... [include] providing role clarity regarding who owns the RDR Plans and who is responsible for their development, ongoing monitoring and reporting. (Deloitte 2022, pp. 28–29)

... the 'best' home for the plans is not clear. There needs to be more than token ownership, it needs to be associated with a commitment to provide resources or coordination for agreed actions which are refined and updated over time. (Queensland Government 2022b, p. 29)

Without clear and on-going governance arrangements, plans risk fragmentation and ad-hoc implementation. While flexibility is useful for allowing plans to reflect different regional needs, this flexibility should not extend to basic requirements for accountability and strategic oversight.

For the next funding plan period, the Department should provide states and territories with more explicit guidance on a preferred governance framework. This guidance could help with:

- identification of a lead organisation to implement local planning activities and provide long-term strategic oversight for planning, implementation and future management of plans
- arrangements between state departments, regional organisations and local planners that would articulate shared roles and accountability mechanisms for planning and implementation activities
- identification of an organisation with ongoing responsibility for MEL activities.

This guidance should be developed in consultation with all jurisdictions and draw upon key learnings from the pilot phase. To the extent that this proves challenging to implement in some jurisdictions, for example, due to state and regional capacity, this guidance could provide the basis for capacity building efforts between the Department, states and territories and local organisations.

Funding arrangements

Issues with the ownership, remit and feasibility of planned activities are partly the result of uncertainty around implementation funding. Several participants noted that uncertainty about funding has hampered development of the plans:

The initial RDRP funding did not consider implementation funding. This has been a central shortcoming in the design of the program which can be addressed. (Professor Hurriyet Babacan and Professor Allan Dale, sub. 58, p. 2)

The plan was developed with no knowledge of the associated implementation budget and is now bogged down in “top down” bureaucratic review and sign off processes with CSIRO, state and federal governments. (Lu Hogan & Professor Lewis Kahn, sub. 62, p. 8)

We agree that implementation has been affected by sub optimal integration and sequencing and limited funding ... Plans that have not commenced should ensure they are explicitly considering FDF funding or other funding sources to support the implementation of those programs. (TNQ Hub, sub. 88, p. 9)

To a certain extent this issue reflects the preliminary nature of the draft foundational plans and will likely improve once the Department, states and territories deliver implementation grants.

However, the concerns raised in submissions also suggest uncertainty among participants around the overall strategy for funding implementation. For instance, planners for the Gwydir and Inverell plan suggested that Hub funding was an interim measure while implementation funding was being agreed on:

Thankfully for the Gwydir and Inverell communities, the Armidale Node of the SQNNSW Innovation Hub has been able to fund and implement some of the recommendations of the plan in the interim. (Lu Hogan & Professor Lewis Kahn, sub. 62, p. 8)

This appears contrary to the intention that plans draw upon a range of funding sources offered through existing FDF programs or outside the Fund. Further, uncertainty around funding opportunities has likely impacted the quality of plans, given there has not been a clear understanding of what is feasible. The Department should provide participants with guidance on the sources of funding that are available between the Australian, states and territory governments (including sources available outside the FDF), the types of activities that can receive funding through FDF grants and a timeline for these processes.

Stronger support for MEL activities within plans

The program framework requires that plans ‘specify a monitoring, evaluation and review process to ensure transparency, adaptive management, and long-term implementation’ (DAFF 2021b). However, several draft foundational plans have not provided evidence of a MEL component and many plans that did include a MEL process were assessed by CSIRO as needing further development. Suggested improvements included:

- incorporation of KPIs and approaches to track, assess and reflect on outcomes over time
- more explicit examination of the program logic and links between outcomes and actions identified in the plans.

Some plans have established a more comprehensive MEL framework. These plans generally were able to identify regional indicators that would be drawn upon (or indicators that would be developed) and/or an implementation strategy for the MEL activities.

Effective MEL plans are necessary for tracking and learning from the outcomes of the RDRP program. They also present an opportunity for monitoring and assessing the FDF’s long-term outcomes more broadly

(recommendation 5.1). In particular, there is potential for regions to develop baseline data on vulnerability and socio-economic profiles, as well as long-term climate data (CSIRO, sub. 80, pp. 10–11). This would have the immediate benefit of tracking outcomes for planned activities but could also be leveraged to understand the effectiveness of other FDF programs (such as the Hubs) at a regional level.

A challenge in developing effective MEL plans has been the absence of funding and accountability. The lack of certainty that the activities identified in the draft foundational plans will be implemented has provided little incentive for planners to develop effective monitoring and evaluation mechanisms. The guidance material that the Commission is recommending (outlined above) should go some way to addressing this uncertainty. Nonetheless, there should be greater effort during the next Funding Plan to improve the comprehensiveness of MEL plans, including, potentially by allocating some portion of RDRP funding specifically to MEL activities or through the additional MEL-specific funding recommended in chapter 5.



Recommendation 7.3 Improving the Regional Drought Resilience Planning program

The Department of Agriculture, Fisheries and Forestry should work with the state and territory governments to provide guidance to program participants on:

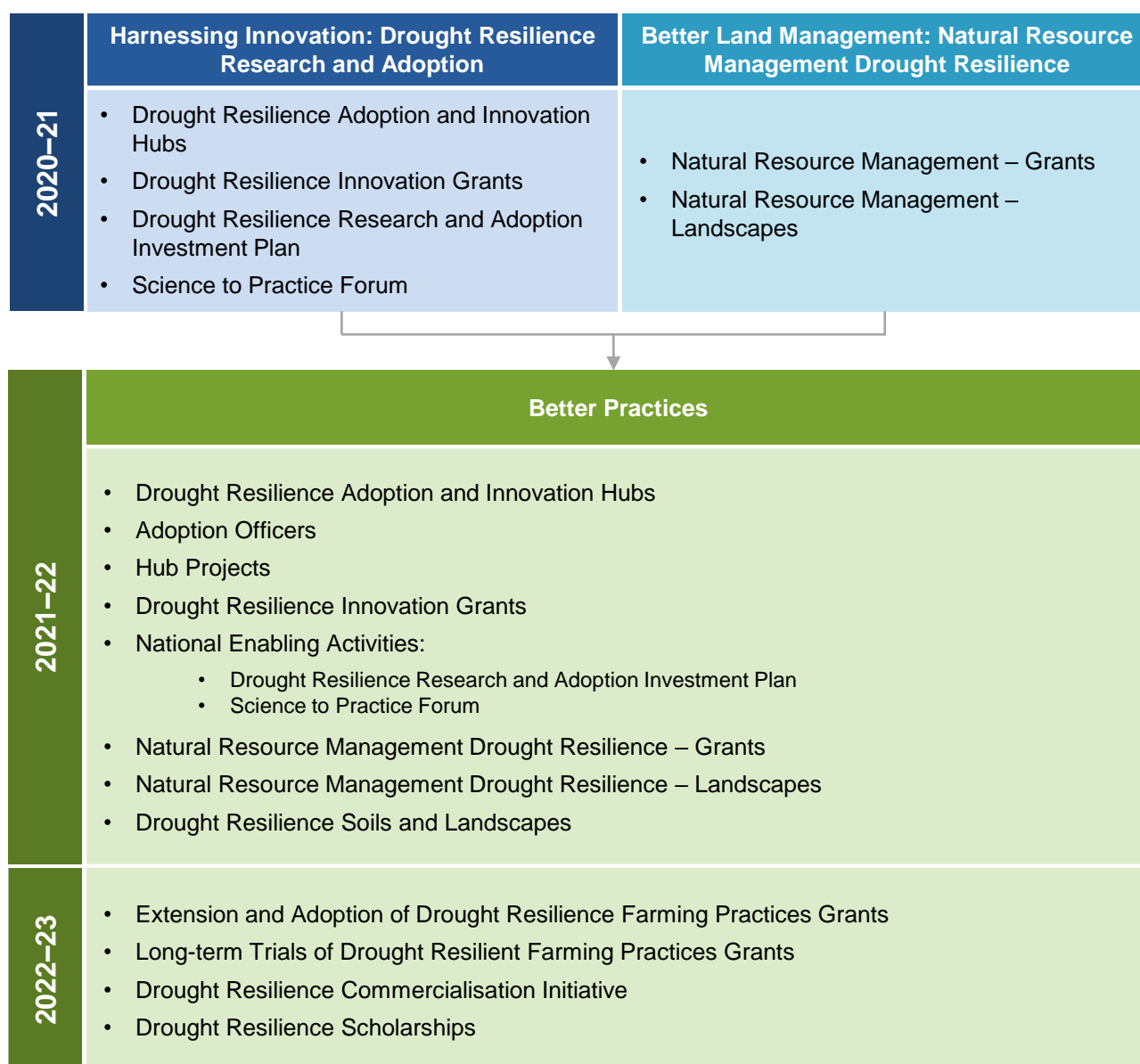
- implementation pathways for resilience activities identified through the Regional Drought Resilience Planning process
- a preferred governance framework for regional drought resilience plans
- the sources of funding available from the Australian, state and territory governments, the types of activities that would be eligible for funding from the Future Drought Fund and a timeline for these processes.

7.3 Better Practices

The *Better Practices* theme is the largest of the four FDF themes. It has undergone substantial change since the start of the Funding Plan. The theme has 12 programs with just over \$203 million allocated over the four years of the current Funding Plan. Almost \$77 million had been spent by 30 June 2022 (56.3% of FDF expenditure to date) (figure 7.1).

The Better Practices theme has evolved from two main programs, *Drought Resilience Research and Adoption* and *Natural Resource Management Drought Resilience*, to 12 programs (figure 7.4).

Figure 7.4 – A timeline of the Better Practices theme and its predecessors^a



a. The Drought Resilience Research and Adoption program was part of the Harnessing Innovation theme while the Natural Resource Management Drought Resilience program was part of the Better Land Management theme. Both programs were rolled into the Better Practices theme in 2021-22.

Source: DAFF (2022b); DAWE (2021a).

This section does not assess the latest four programs announced in 2022-23 and that are being rolled out (figure 7.4). These programs should be reviewed towards the end of their funding cycles to ensure they are generating positive outcomes for the community.

The Commission is sceptical whether the *Drought Resilience Commercialisation Initiative* and *Drought Resilience Scholarships* programs will produce sufficient public benefits to justify investment. When evidence on the outcomes from these programs is available, DAFF may need to consider if some or all of the funds allocated to these programs would be directed to other FDF programs (chapter 3).

Drought Resilience Adoption and Innovation Hubs

In April 2021, the Fund established eight *Drought Resilience Adoption and Innovation Hubs* (Hubs) as a core part of the FDF, both in terms of funding (\$66 million over four years) (figure 7.1) and their potential links to other programs. Moreover, the Hubs are intended to facilitate transformational change by bringing together a broad range of research users and providers at the regional level (DAWE 2020b, pp. 7–8). The Hubs are in major climatic and agriculture zones and are led by regional universities (except in South-West Western Australia where the Hub is led by the Grower Group Alliance), with a presence in regional centres ('nodes') (table 7.2).

Table 7.2 – Hubs' priority themes/areas

Hubs	Lead organisation	Priority themes/areas
Northern Hub	Charles Darwin University	<ul style="list-style-type: none"> • Access to knowledge • Improve management^a • Enhance forage production and utilisation • Improve use of water sources • Increase human capacity
SA Drought Hub	University of Adelaide	<ul style="list-style-type: none"> • Farm planning and decision making^a • Strategies, technologies and innovation in <ul style="list-style-type: none"> – soil and land management – livestock and fodder management – crop and pasture management – native vegetation, biodiversity, and pest management – water security and management – irrigated agriculture management • Upskilling advisers, researchers, and key influencers
Southern NSW Innovation Hub	Charles Sturt University	<ul style="list-style-type: none"> • Water management • Regional communities^b • Planning and preparedness^a • Agricultural practices • Landscape management
SQNSW Innovation Hub	University of Southern Queensland	<ul style="list-style-type: none"> • Data and decision making • Wellbeing and employability • Environmental commodities • Best practice agriculture and preparing for drought
SWWA Drought Resilience Adoption and Innovation Hub	Grower Group Alliance	<ul style="list-style-type: none"> • Agricultural practices • Environmental footprint • Water management • Digital agriculture • Farm planning and decision making^a
TAS Farm Innovation Hub	University of Tasmania	<ul style="list-style-type: none"> • Farm planning and preparedness^a • Water • Landscapes • Climate • Community^b

TNQ Drought Hub	James Cook University	<ul style="list-style-type: none"> • Drought and climate change adaptation • Land and soil management • Innovation and technology • Enhancing skills and human capacity • Enhancing sustainable Aboriginal and Torres Strait Islander resilience
Victoria Drought and Innovation Hub	University of Melbourne	<ul style="list-style-type: none"> • Improve farm management^a • Improve information provision and access • Improve business management^a • Promote Indigenous knowledge and culture • Improve advisory services

a. There is some overlap with FBR program activities. b. Some activities overlap with the Better Communities theme programs. Source: Individual Hub websites.

Hubs were intended to address gaps in extension and adoption

A 2019 report on agricultural innovation by the Department (then the Department of Agriculture, Water and the Environment), in conjunction with Ernst & Young, indicated the need for improving extension and adoption of innovations and greater collaboration across the agricultural innovation system (EY 2019).

The Department established the Hubs to bring together pre-existing research and accelerate its uptake through extension, adoption, testing and scaling up of new solutions, and commercialisation (DAWE 2020b, p. 7). The Hubs were also expected to facilitate coordination between FDF programs in their regions (FDF Consultative Committee, sub. 3, p. 3).

A key function of the Hubs program is knowledge brokering. Each Hub is required to host a knowledge broker to connect the Hubs and other FDF programs, share new knowledge, and ensure information and capability flow across all FDF programs. Knowledge brokers are also expected to support decision-makers to identify research priorities and in the translation of science into practice (DAWE 2020b, p. 9). Furthermore, in 2021, the Hubs were funded for Adoption Officers to facilitate and support on-ground extension and adoption activities and to drive uptake of new on-farm and local innovations for improved drought resilience (DAFF 2022b, p. 27).

Positive early signs of building networks and trust

Inquiry participants acknowledged the importance of building networks and trust in the regions, which has been the focus of most Hub activities to date (Northern Hub, sub. 11, p. 2; TAS Farm Innovation Hub, sub. 39, p. 1; University of Adelaide, sub. 32, p. 1).

Collaboration, enabling and support depends on relationships, networks, communication channels and trust. The past 12 months has seen all of these critical elements develop and grow in the SNSW Hub ... (Southern NSW Innovation Hub, sub. 74, p. 2)

Hubs provide critical function in connecting, raising awareness, and collaboration for a shared purpose to the challenge of drought. (Dr Chad Renando, sub. 77, p. 23)

Besides building networks within their regions, the Hubs have commenced a number of environmental and social resilience activities. For example, several cross-hub projects include natural resource management

activities that have scope to deliver broad environmental benefits. And the Victoria Drought Resilience Adoption and Innovation Hub (among others) is undertaking activities to enhance social resilience.

The Victoria Drought Hub has commenced engagement with rural health and mental health specialists from five Victorian universities with a view to developing a strategy to better address the well-recorded mental health stresses experienced by rural communities during drought periods. This strategy is still under development and more will be achieved during the next reporting period. (Vic Drought & Innovation Hub 2022, p. 22)

There are further opportunities for the Hubs to leverage the existing networks in their regions and inquiry participants expressed their willingness to work with the Hubs (FRRR, sub. 70, p. 13). For example, the National Landcare Network (sub. 18, p. 3) stated that:

Whilst there has been some engagement at node, hub and grant level, there is a significant opportunity for the Community Landcare network to have much wider, systematic engagement at local, regional, state and national scales to ensure outcomes across the following Drought Hub priority areas: information provision and access; farm planning and decision-making to manage climate and operational risks; strategies for soil, livestock, crop, pasture, native vegetation, biodiversity and pest management; adoption of best-practice agriculture and preparation for drought, and enhancing sustainable Aboriginal and Torres Strait Islander resilience, among others.

Uncertainty around Hubs' role and duplication of activities persist

Agricultural communities have generally supported the intent of Hubs to facilitate extension and adoption of knowledge and practices. However, the Commission has heard from both the Hubs themselves and other sector participants that there is uncertainty about the Hubs' role.

In particular, there has been confusion about the extent to which the Hubs should engage in research and development and interact with existing organisations, such as NRM groups, Landcare groups and Rural Research and Development Corporations (Ag Excellence Alliance, sub. 19, p. 2; NACC NRM, sub. 21, p. 3; NRM Regions Australia, sub. 51, p. 8; Queensland DAF, sub. 54, pp. 5–6). For example:

Complementarities between the FDF and existing organisations such as the industry-led Research and Development Corporations (RDCs) and a range of related Cooperative Research Centres (CRCs) are unclear (Funding rule #4), leading to both overlaps and gaps as well as risking a sense of competition rather than complementarity. (IWF and CEAT, sub. 25, p. 9)

... introducing a new intervention into an existing ecosystem, especially at the scale and immediacy of the Future Drought Fund implementation, competes with established networks and creates confusion, competitive shielding, and lack of trust. (Dr Chad Renando, sub. 77, p. 7)

Uncertainty around the roles and responsibilities of the Hubs was exacerbated when new non-FDF functions and funding were added to the Hubs. These included new roles in the delivery of the National Agriculture Innovation Agenda and hosting the soil management coordinators of the Regional Soils Coordinator Program (DAFF 2022a, p. 28). The Hubs are now expected to undertake broader innovation and soil management activities to improve productivity and commercialisation opportunities.

We welcome vehicles such as Drought Resilience Hubs as a focus for innovation providing funding that allows for strengthening of regional ecosystems of research, innovation, education and business development, including supporting the role of regional universities in innovation and extension for the benefit of agricultural regions. (JCU, sub. 83, p. 3)

In 2022, the Department sought to clarify the roles of Hubs, stating within each Hub's MEL plan that the Hubs were to focus on applying existing knowledge to solve issues of local concern (extension, adoption and commercialisation) rather than generating new knowledge (research and development). There is scope to further clarify the roles and responsibilities for each Hub within the FDF and to stakeholders and broader communities (chapter 4). Participants to this inquiry, including Hubs themselves, have strongly supported the need for further clarity (JCU, sub. 83, p. 2; NRM Regions Australia, sub. 67, p. 2; Dr Chad Renando, sub. 77, p. 23; Southern NSW Innovation Hub, sub. 74, p. 2). For example, the Northern Hub (sub. 84, p. 2) stated that:

A clearer definition of the Hub's roles within the architecture of the FDF. A refinement of the outcomes the hub will be measured by in the short, medium and longer term (MEL).

There is also a need to clarify the roles and responsibilities of knowledge brokers⁹ in supporting knowledge and information flow between the Hubs and across FDF programs as part of the proposed knowledge strategy (chapter 3). This point has been made by participants (FRRR, sub. 70, p. 13; NFF, sub. 64, p. 12; Dr Chad Renando, sub. 77, p. 19). For example, Riverine Plains (sub. 29, pp. 4–5) noted that knowledge brokers are operating differently in different Hubs and provided suggestions for the roles that knowledge brokers could play:

Being partners of both the Victorian and s[S]NSW drought hubs has exposed us to the different ways these positions operate. Areas of improvement include developing a template for knowledge sharing and simplifying research into common language for end users and clarifying the difference between the communications team and the knowledge brokering roles.

Finally, inquiry participants raised concerns that Hubs are duplicating activities by existing organisations, state and territories, and other FDF programs as well (table 7.2). For example:

The intent of the Hubs is supported; however, the implementation has not met expectations. These include issues with real and perceived duplication of services and reliance and under-acknowledgement on NRM Regional Organisation networks, capacity, reach, contacts, and events. (Rangelands NRM Coordinating Group, sub. 50, p. 5)

In drought hubs ... there can be a duplication of services (including with state agencies), which may not be adding value to existing extension and adoption efforts. (Queensland DAF, sub. 54, p. 5)

Hub governance could be improved

The annual governance survey of Hub members in 2022, conducted by the Hubs themselves, found a generally positive view on how the Hubs are run.¹⁰ However, some concerns have been raised, including about the role and membership of the Hub steering committee,¹¹ which is the main governance body of each Hub.

Key issues flagged in the survey included:

- tensions arising from differences in expertise, experience, priorities, resources and culture of the organisations that make up the consortium that runs each Hub (particularly between regional universities and other groups, and between farming and NRM/Landcare groups)

⁹ The difference in definition of roles of knowledge brokers between 2020-21 and 2021-22 annual reports shows that the role of knowledge brokers in ensuring information flow had been taken away. (DAFF 2022b; DAWE 2021a).

¹⁰ Hubs are required to undertake an annual survey of their members and publish it in their annual MEL report. Only five of the eight Hubs undertook the required survey of their members in 2021–22. The three that elected not to survey their members were the South Australia, Tasmania and Tropical North Queensland Hubs.

¹¹ Each Hub has a Steering Committee (or equivalent such as the Hub Board) of member representatives that oversees management and delivery of the Hub; the policy framework; risk management and budget.

- the Hubs are failing to include all consortium members in decision making
- differences of opinion concerning the direction that the Hub should take and projects that it should fund, particularly after the remit of the Hubs was expanded
- uncertainty about the roles of the Hub steering committee (or equivalent) and Hub staff, and the boundaries between the two
- a lack of certainty concerning whether the steering committee is an advisory body or one that makes binding decisions (like the board of a listed company)
- whether membership of the steering committee should be based on the skills that the Hub needs or should represent the interests of the organisations that comprise the consortium.

The Commission has also heard concerns from participants around transparency and accountability:

The governance models of the Hubs are unclear and greater transparency in this regard would be welcome. (Riverine Plains, sub. 29, p. 5)

The governance and delivery model can also be adjusted at the Hub and regional level. In its establishment the application of the fund and the development of the priorities has been a largely top-down approach and to build true community resilience (including all aspects of the 3 strategic priorities) the program requires a strong commitment to local and regionally driven governance. The Hubs were established with an initial remit that has been substantially increased without transparent process or consideration of whether alternative arrangements would be better suited to deliver the various program components. (NRMRQ, sub. 23, p. 7)

A statement of expectations and a mid-term review

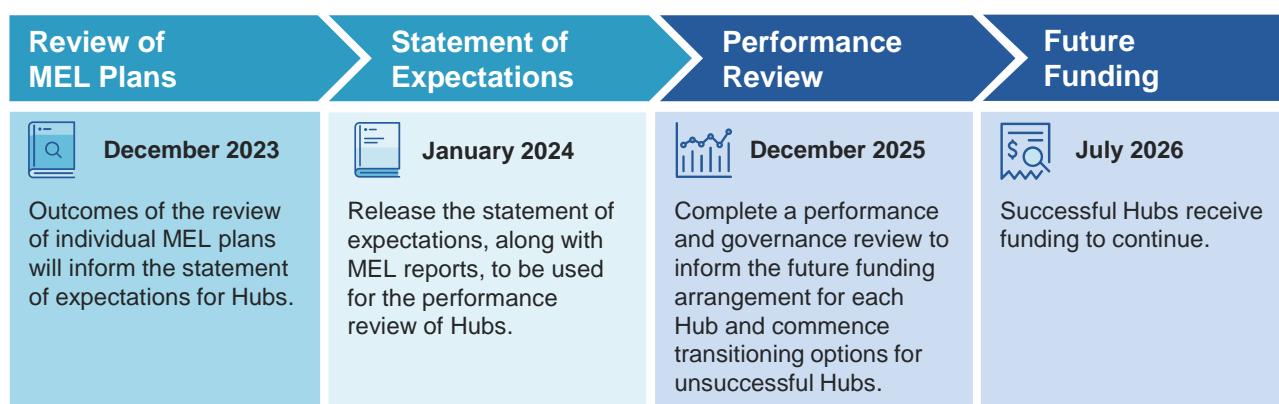
To enhance Hubs' accountability and clarify their role, the Department could develop a public statement of expectations for the Hubs program. Among other things, the statement should confirm the 2022 guidance to the Hubs to focus on activities supporting extension, adoption and scaling-up rather than fundamental (new) research and innovation activities.

The statement could also clarify the roles and responsibilities of each Hub, including collaboration with existing networks and the role and membership of the steering committee; and set indicators for the outputs and outcomes that the Hubs are expected to deliver (chapter 5). Explicitly referencing this statement in the investment plan and the knowledge strategy (chapter 3) would reinforce expectations, including of the Hub knowledge brokers.

The Hubs would be expected to tailor their activities, outputs, and outcomes to the statement of expectations. In doing so, the Hubs could undertake a significant role in the proposed knowledge strategy by improving their coordination and collaboration with other FDF programs in areas such as farm business planning and management, awareness of climate information, and community resilience while addressing their governance issues.

The Commission recommends that funding for the Hubs be continued in the next funding cycle (from July 2024 to June 2026). However, further funding for any individual Hub should be contingent on demonstrating adequate performance and governance in a review mid-way through the next funding plan period, no later than the end of 2025-26 financial year (figure 7.5). Reporting in accordance with the MEL plans – which are largely consistent across each individual Hub – will be instrumental in informing this review.

Figure 7.5 – Proposed plan for the Hub program in the next Funding Plan



Recommendation 7.4

Improving the Drought Resilience Adoption and Innovation Hubs

Funding for the Drought Resilience Adoption and Innovation Hubs should be extended for two years in the next funding plan period, with continued funding for each Hub depending on a satisfactory mid-term performance review.

The Department of Agriculture, Fisheries and Forestry should also:

- release a public statement of expectations for the Drought Resilience Adoption and Innovation Hubs program and individual Hubs
- align Hub knowledge brokers' activities with the proposed Future Drought Fund knowledge strategy (recommendation 3.4).

National Enabling Activities

The *National Enabling Activities* program supports activities to 'help farmers and regional communities build drought resilience through investment in collaboration and impact assessment'. Four National Enabling Activities have been funded, comprising:

- an annual Science to Practice Forum
- an investment plan to identify drought resilience research and adoption investment priorities
- work on how to effectively engage with First Nations communities on drought resilience
- work on how to develop an effective knowledge management system for the FDF (DAFF 2022b, pp. 30–31).

These activities were rolled out at the beginning of the FDF and were intended to underpin other FDF activities. Over \$8 million was earmarked for these activities over the four years of the current Funding Plan; \$6.8 million remains unallocated (figure 7.1).

Most of the activities within the National Enabling Activities program have concluded.

- A draft Drought Resilience Research and Adoption Investment Plan was developed, at a cost of \$214,000, but was overtaken by changes in the Fund and not released (the need for such a plan is discussed in chapter 2). Two consultancies were undertaken to assist with engagement of Aboriginal and Torres Strait Islander people (the recommendations from these consultancies are discussed in chapter 6).

- A consultancy project, costing \$710,000, was commissioned to inform the development of a knowledge management system for the Hubs and for the Fund, but this platform has not been progressed (the need for a knowledge strategy is discussed in chapter 3).

The Commission has heard that the Science to Practice Forum – an interactive, online and free event that connects researchers, farmers, agri-businesses, communities and governments to discuss challenges and solutions in building drought resilience – has been beneficial. At the Forum, the Hubs share their progress towards development, extension, and adoption of drought resilience practices and technologies. Other stakeholders also share and demonstrate their work on building drought resilience. As a low-cost avenue of sharing knowledge and information publicly, the Commission recommends continued funding for the Forum in the next Funding Plan as part of the knowledge strategy recommended in chapter 3.

Drought Resilience Innovation Grants

The *Drought Resilience Innovation Grants* program funds innovative projects to equip farmers, agricultural communities and businesses to adapt, reorganise, transition and/or transform in preparation for drought conditions. The funded projects are at different stages of development, including early-stage proposals, feasibility testing for new products, processes and services and large-scale innovation projects. The program has awarded \$28.9 million to 15 Innovation Grants, 8 Proof-of-Concept Grants and 23 Ideas Grants (DAFF 2022b, p. 32). The Ideas Grants and Proof-of-Concept Grants streams were funded to 30 June 2022 while the Innovation Grants stream was funded for 3 years, ending June 2024.

Projects under the Innovation Grants program offer the potential to deliver improved ways of building drought resilience and are consistent with the Funding Plan's objectives. The funded projects are diverse and encompass: applied research activities such as harvesting atmospheric moisture, and developing ground cover to enable resilience in low rainfall mixed farms; improving natural capital through innovative livestock ranking strategies; and using behavioural science approaches to building drought resilience.

While implementing the Drought Resilience Innovation Grants program, the Department provided additional funding to Hubs to expand their focus beyond drought resilience to include broader agricultural innovation. Furthermore, many NRM grant activities (including Drought Resilient Soils and Landscapes) target broadly similar endeavours as the Innovation Grants program. This creates the potential for duplication of innovation activities within the Fund.

A program MEL plan is needed

Recipients of funding through the Innovation Grants stream must complete a MEL plan and report against it. However, the recipients of the Proof-of-Concept and Ideas Grants streams are only required to complete a report at the end of the project.

An Activity Work Plan sets out, among other things, the intended objectives, deliverables and milestones for each Innovation Grant. These Plans contain, in effect, a condensed MEL plan for each project that outlines the intended approach for assessing the effects of the program (including the baseline against which the effects will be measured).

Projects funded under the other two streams were scheduled for completion by mid-2022 but some were extended due to COVID-19 and floods. The intention of these two streams is to create new or improved products, services, and processes for building drought resilience and for farmers to adopt them at scale. However, the absence of a MEL plan and associated reporting means there is no mechanism to ensure that the knowledge gained from these two streams is shared and understood. The Department should consider

deploying a program MEL plan as part of the systematic MEL approach suggested in chapter 5 and integrating reporting requirements of these two streams into it.

The Fund has a role to invest in transformational innovation

The presence of public good benefits associated with research and development are an important rationale for government involvement (IC 1995; PC 2011). Transformational innovation is likely to have spillover benefits from the resulting knowledge beyond the innovator, who therefore tends to underinvest.

The Australian agricultural innovation ecosystem comprises a range of actors, including Research and Development Corporations (RDCs), CSIRO, Cooperative Research Centres, universities, federal and state governments and agencies, grower groups, and entrepreneurs (DAWE 2021c). However, this existing ecosystem – including the Fund – has predominantly invested in commodity-based innovation, focusing on short-term, incremental changes (Council of Rural RDCs 2018).

Analysis of the existing R&D system by [the Centre for Entrepreneurial Agri-Technology] and others indicates the agricultural sector expends much of its R&D resources on short-term, incremental Innovation. (IWF and CEAT, sub. 79, p. 8)

The Commission has heard from inquiry participants that some regions see substantial challenges ahead for their industries, and that agricultural industries may require step-changes in practices to be viable in the long-term. The Fund has a comparative advantage in supporting investment in long-term projects that can facilitate transformational change (chapter 3).

The Innovation Grants program should pilot a ‘challenge-oriented’ approach

In the interim report, the Commission raised the idea of the Department testing a ‘challenge-oriented’ approach to innovation through the Innovation Grants program. This approach would facilitate tailored innovative solutions to a small number of complex and multi-dimensional challenges – in a particular region, industry or at a broader systems level – arising from drought and climate change. The program would not focus on incremental efficiency gains, but on the transformative innovations that are required to support agricultural systems over the long term. For example, it might focus on finding opportunities to enhance the sustainability of regions highly exposed to drought and climate risks by assisting with diversification in those regions.

Inquiry participants strongly supported the proposal of a challenge-oriented approach (IWF and CEAT, sub. 79, p. 9; NFF, sub. 64, p. 17; Southern NSW Innovation Hub, sub. 74, p. 3). For instance, South Australian Drought Resilience Adoption and Innovation Hub (sub. 82, p. 4) stated that:

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.

The Commission is recommending the Innovation Grants program include a pilot of a ‘challenge-oriented approach’ to innovation. The pilot sub-program could be developed and delivered with industry, the relevant Hubs, and local and state governments, leveraging financial and in-kind support from these partners. There may be opportunities to integrate the work supported by the pilot with other FDF programs, such as the Regional Drought Resilience Planning and the Farm Business Resilience programs. The outcomes of the pilot should be assessed ahead of any decision to continue with and scale up the approach and considered in the context of the proposed Fund’s investment plan.



Recommendation 7.5

Piloting a 'challenge-oriented' approach to the Drought Resilience Innovation Grants program

The Department of Agriculture, Fisheries and Forestry should pilot a 'challenge-oriented' approach as part of the Drought Resilience Innovation Grants program. The pilot should facilitate tailored, innovative solutions to a small number of complex and multi-dimensional challenges – in a particular region, industry or at a broader systems level – arising from drought and climate change.

Natural Resource Management Drought Resilience programs

The Funding Plan has rolled out three programs to improve natural resource management.

The first two programs, the *Natural Resource Management Drought Resilience Program – Grants* (\$7.8 million) and the *Natural Resource Management Drought Resilience Program – Landscapes* (\$5.6 million) were 12-month programs, with a short extension due to COVID-19. The third program, *Drought Resilience Soils and Landscapes* (\$23.1 million), is a three-year program running from 2021-22 to 2023-24 (figure 7.1).

As discussed in chapter 3, there is a strong case for the Fund to support activities that improve natural capital. NRM activities can produce positive economic outcomes at the farm gate (private benefits), and, in the long term, can improve the resilience of regional economies and the environment (public benefits) (Samuel 2020; Swinton, Shiferaw and Freeman 2005).

However, despite the prospect of private gains, uncertainty around the scale and likelihood of future benefits may mean there are inadequate incentives for individual landholders to change their practices – resulting in poorer outcomes for the community overall. In this regard, trialling and demonstrating natural resource management practices can enable more farmers to recognise the benefits, increase uptake and deliver a greater benefit for the community (Cary, Webb and Barr 2002; Pannell 2008).

Many participants strongly supported an increased emphasis on activities to enhance natural capital (ALCA, sub. 78, p. 1; NFF, sub. 64, p. 11). For example, NRM Regions Australia (sub. 67, p. 1) highlighted that:

... environmental resilience and improved natural capital are fundamental to long-term sustainability, and that support for improved natural resource management should be a priority in the next funding cycle. We agree that collaborative catchment projects are more likely to provide public benefits.

Natural Resource Management – Grants and Landscapes

The NRM Grants and Landscapes programs targeted building environmental resilience to drought through on-ground, natural capital projects.

- The NRM – Grants program provided \$7.8 million in funding to 66 small projects and was open to everyone.
- The NRM – Landscapes program was restricted to NRM organisations with 14 projects receiving \$5.6 million in total (DAFF 2022b, p. 33; DAWE 2020f, p. 1).

By 30 June 2022, 35 projects across the two programs were completed. The remaining 45 projects were extended beyond 30 June 2022 due to the impacts of COVID-19, floods and other adverse weather conditions (DAFF 2022b, p. 25).

Short-term programs are likely to yield short-term results

Both the Grants and Landscape programs initially operated for 12 months and were rolled out quickly, with applications opening in late 2020.

The short-term nature of projects meant that the program is unlikely to have delivered on its central aim of promoting transformational on-ground practices, networks and partnerships that contribute to the drought resilience of agricultural and broader landscapes. The Selection Advisory Panel for both NRM Landscapes and NRM Grants also commented that transformational change is not feasible within the timeframes of the programs (that is, 12-18 months in duration) (DAWE 2020e, 2020f). This sentiment was recognised by the Department of Agriculture, Fisheries and Forestry.

The foundational NRM Drought Resilience program received 12 months of funding for activities throughout 2021-22. ... It is essential that our grantees be given the time and space if they are to observe and report on drought resilience improvements. ... Experimenting with transformative approaches to build natural capital to increase drought resilience often takes multiple years under varied seasonal production cycles and climatic conditions. (sub. 42, p. 8)

There is not a separate MEL plan for each program

One MEL plan covers both the Grants and Landscapes programs (DAFF 2022d). The MEL plan states that there will be a program evaluation after receipt of the final program reports, expected in September 2022. However, the extension of the completion date beyond June 2022 has meant a limited number of projects have reported to date. Consequently, there has been no end-of-project MEL reporting for the combined programs.

Environmental outcomes are generally difficult to measure (chapter 5). This, coupled with the assorted nature of the projects funded, will make it difficult to assess the effectiveness of the combined programs.

Notwithstanding this, differences between the two programs – the parties involved, the types of projects funded, grant size and the quantum of funding involved – point to the need for separate MEL reporting to evaluate the effectiveness of each program.

Drought Resilient Soils and Landscapes program

The objective of the *Drought Resilient Soils and Landscapes* program is to trial and demonstrate how scaling of particular practices (or combinations of practices) to improve management of natural capital can build drought resilience. It is intended to create and communicate an evidence base that will lead to widespread adoption of successful practices.

The Drought Resilient Soils and Landscapes program has provided just over \$23 million to 26 projects (DAFF 2022b, p. 35). This program appears to have incorporated learnings from the initial two NRM programs by providing a longer time frame, 2021-22 to 2023-24, and supporting projects that can be expanded. These changes make it more likely that the program will enhance environmental resilience, compared to the earlier NRM programs.

The focus of successful projects was to trial and demonstrate practices that improve drought resilience. Projects were required to support:

- continued agricultural productivity and profitability during drought
- faster recovery of agricultural productivity and profitability following drought
- the provision of common and public good ecosystem services during and after drought (as these services underpin or are co-benefits to agricultural productivity and profitability) (DAWE 2021b, p. 6).

Program activities must be completed by 30 June 2024. Since the projects have been running for roughly one year, it is too early to assess their effectiveness. Besides emphasising the importance of investing in natural capital enhancement activities (chapter 3), inquiry participants have also pointed to the need for the FDF to avoid duplicating efforts by NRM and Landcare organisations (ALCA, sub. 78, p. 4; NFF, sub. 64, p. 11; NRM Regions Australia, sub. 67, p. 1). For example, ALCA (sub. 78, p. 4) said:

The FDF should, at minimum, aim to complement its activities with the NLP [National Landcare Program], which promotes the protection and management of biodiversity and sustainable land and water management practices. This collaboration can facilitate the implementation of targeted drought mitigation strategies while avoiding duplication.

Like other FDF programs, the MEL plan for the Soils and Landscapes program was developed after the roll out of the program. Consistent with the recommendation in chapter 5, the program MEL plan should be further developed with details on how to measure outcomes, particularly environmental benefits, along with clear links between program activities and medium- and long-term outcomes.

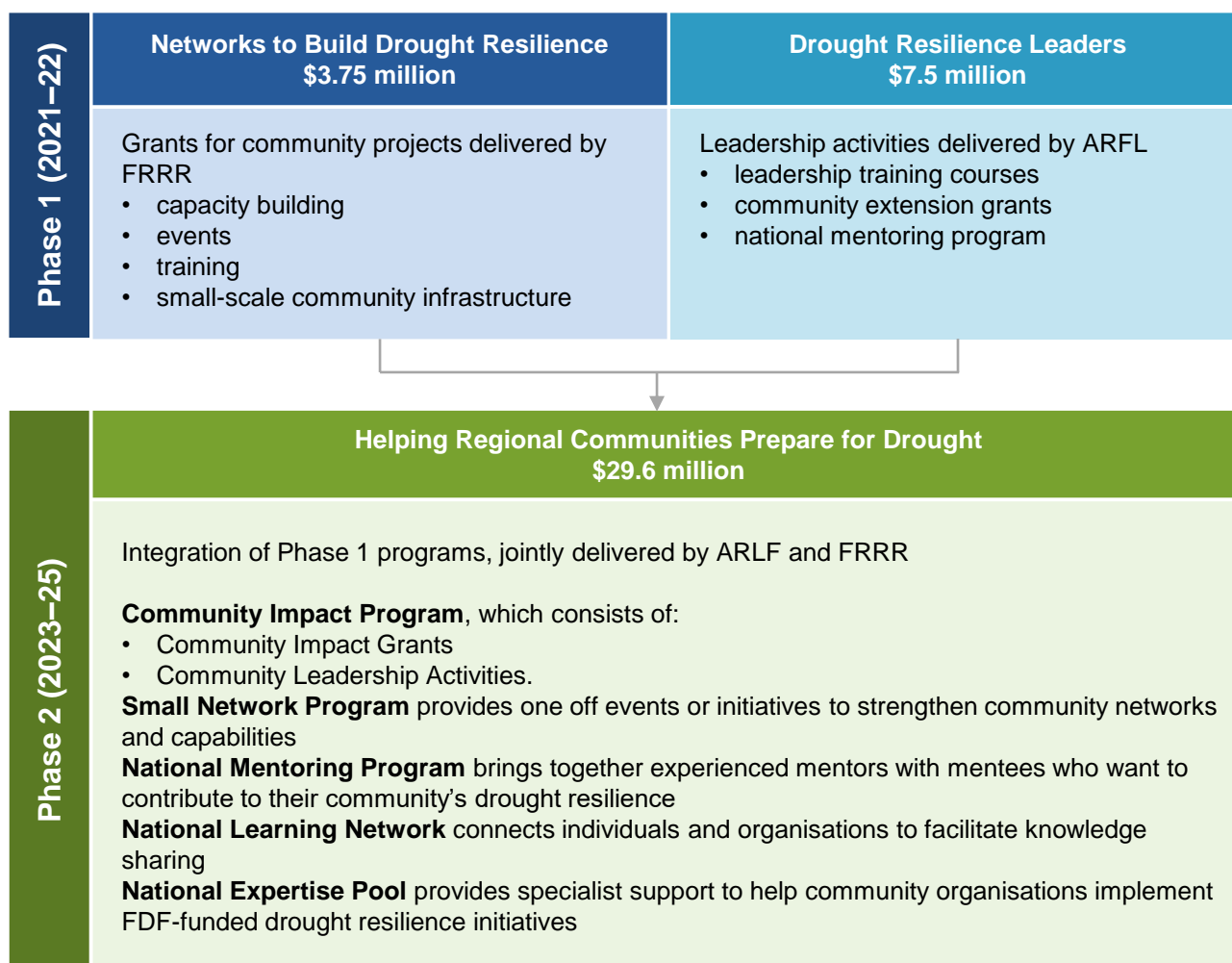
Overall, given the greater likelihood of community-wide benefits from NRM activities in the long term, the Commission considers there is merit in continuing this program in the next Funding Plan.

7.4 Better Prepared Communities

Programs under the *Better Prepared Communities* theme (community programs) are focused on building local social capital to help communities withstand the impact of drought. The programs support local leaders, networks, mentors and community organisations working on drought resilience in their community, primarily by strengthening their social resilience to drought. The guiding principle is that social capital is built on strong social networks and leadership, which support communities to adapt and transform in response to drought and climate change.

The three programs under the Better Prepared Communities theme were allocated \$40.8 million over the four years of the current Funding Plan, with \$16.2 million spent by 30 June 2022 (figure 7.6).

Figure 7.6 – Better Prepared Communities program framework



Source: FRRR (nd).

Building social resilience through community programs

The foundational programs – *Networks to Build Drought Resilience* (Networks) and *Drought Resilient Leaders* (Leaders) – have reported high levels of participation and positive feedback from participants in terms of network growth, wellbeing, capacity building and leadership development. The extent to which these outcomes will have an enduring effect on the resilience of communities is not yet known.

Networks to Build Drought Resilience program

The Networks program, delivered by the Foundation for Rural and Regional Renewal (FRRR), aims to build social resilience by providing workshops, networking events, training, and funding for small infrastructure projects. While some of these activities would be expected to support social resilience, others are unlikely to be effective or may be better provided through other FDF programs.

Networking, events and training

Many of the projects funded by the FRRR were events, workshops and information sharing initiatives for farmers and communities. Limited evidence on these activities is available, though several grantees (that delivered projects with FRRR funding) have told the Commission that their projects provided specific value to

social resilience in the form of connectedness, mental health support and wellbeing (brief comment C11; brief comment C12; brief comment C28; Hayley Webster, sub. 61; Upper Mooki Landcare, sub. 73).

However, there also appears to be considerable overlap with traditional extension and adoption activities, which only tangentially support the social resilience of communities (box 7.5).

Box 7.5 – Agriculture events and workshops provided by community grants

High-level detail on projects delivered under the Networks program suggests a majority of projects are events, training and knowledge sharing for agriculture groups, promoting drought resilient practices in the sector. There is little evidence on how these activities have specifically targeted the social resilience of communities.

Monaro Farming Systems held a field day in the Monaro region that included a seasonal outlook presentation and discussion around the Farming Forecaster tool.

Upper North Farming Systems delivered a 'Tools, Tech and Transformation' workshop for farmers and agri-businesses followed by a series of nine Hub events.

GroWQ delivered an Ag Industry Round-table facilitating collaboration and a technology showcase on innovation and business resilience in the agricultural sector and the wider community.

Birchip Cropping Group delivered the 'Growth, Adoption, Production and Profitability' regional event for new generation farmers and discussion group meetings.

Mid Lachlan Landcare provided four local field days on drought resilience, on-farm drought preparedness plans and agricultural sustainability practices in the region.

Several project grantees have told the Commission their activities have delivered benefits, however their evidence largely referred to economic and environmental benefits (brief comment C14; brief comment C24; brief comment C27). For instance, Macintyre Ag Alliance (brief comment C30) suggested the benefits of their regenerative agriculture event involved:

...giving participants the opportunity to see regenerative ag practices in action at nearby farms, and to learn new knowledge, tools and skills to introduce regenerative ag practices on their own farms. It also saw the creation of educational resources, including case studies and a video promoting regenerative ag practices in our region as sustainable, profitable, productive and the way of the future to a wider audience.

Source: FRRR (2023d).

While research suggests farmers build their social resilience by participating in community activities such as environmental groups (McManus et al. 2012), it is questionable whether grant funding for one-off workshops or events will create sustained forms of community participation, wellbeing, or broader social cohesion. It is likely that one-off information sessions for farmers are a beneficial avenue for knowledge sharing but not for building enduring community connections that can be drawn upon in future droughts. Further, community programs are unlikely to be the most efficient or appropriate way of developing professional forms of social capital, given the Fund undertakes this through other programs and has a finite annual budget.

- **Hubs** support local networks of farmers, businesses and other groups (including industry, environmental and community groups) through extension, adoption and capability building activities.

- **NRM** programs support networks through large regional extension or industry-focused events on trial and adoption for on-ground drought practices.
- **RDRP** builds social capital by bringing together local government, community members, not-for-profits and industry groups to plan for drought and implement community activities.
- **FBR** provides workshops, events and group activities that aim to build the social resilience of participants and support the development of peer networks in agriculture.

The emphasis on events and social connection in the Networks program potentially provides an accessible entry point for agricultural not-for-profits to run events and therefore extend their reach. However, networking events and workshops tend to be low-cost, core activities of these organisations and could be resourced through charitable donations and membership fees. Indeed, many of these events appear to already be occurring regardless of the program, for instance one participant received grant funding from FRRR for a biannual soil conference that already existed and claimed the extra funding ‘enhanced our capacity to bring together an international quality event’ (brief comment C15).

There is a stronger case to support the development of social capital that would not otherwise be created. This may involve building new connections or supporting existing networks to specifically address social resilience challenges.

Mental health services

Some projects focused on mental health awareness and education to support individuals and communities to manage the stresses of drought.

- The University of Queensland provided ‘Wellbeing Warriors’ for the regional town of Loxton to promote mental health and wellbeing within their networks.
- Paynesville Neighbourhood Centre provided mental health first aid training for local community leaders to understand the risks of challenges such as drought (FRRR 2023d).

These projects provide a strong example of activities that could have enduring impacts in preparing communities for the social impacts of drought and which are likely to result in the community being better off. While formal mental health services are the responsibility of states and territories, there is a role for informal activities that build awareness and a positive culture around mental health support – particularly given the cultural challenges in providing mental health support to farmers (Polain, Berry and Hoskin 2011).

Some events and workshops also provided a focus on mental health awareness. For instance, Gippsland Agriculture Group ran a field day for farmers to discuss drought resilient practices and brought mental health service providers to the event to provide farmers with a comfortable space to discuss mental health and wellbeing (FRRR 2023d).

Small-scale infrastructure

Some projects improved community infrastructure with the aim of combating a decline in amenity value and improving social connectivity (DAFF 2023k).

Several projects invested in upgrades to community halls or other potential meeting areas that may support future community events and planning. While some upgrades involved essential repairs or extensions that made a building usable, others appear to have been non-essential improvements such as the ‘beautification’ of a hall yard. Some investments claimed to improve social connectivity but had a tenuous link to drought resilience, such as the installation of an electronic noticeboard at a community centre and installation of a ‘Connect with the world!’ LED sign at a showground.

Drought Resilience Leaders program

The Leaders program – delivered by the Australian Rural Leadership Foundation (ARLF) – provided leadership training with a focus on drought resilience for young and emerging leaders, along with opportunities to implement small projects in their communities. The program also provided a national mentoring program to support diffusion of best practice and knowledge sharing.

The Leaders program is intended to enhance both formal and informal leadership capabilities by integrating formal training with opportunities for leaders to build connections and deliver projects with community benefits (ARLF, sub. 81). Whether or not this program can translate into lasting, meaningful local change will require further monitoring and evaluation of outcomes over the long term.

However, short-term results from the program suggest a mixed picture. On the one hand, some participants have reported benefits from the training's community focus. For example, it provided some participants the opportunity to collaborate on a Regenerative Rangelands project using their community extension grant (ARLF, sub. 81, p. 1).

On the other hand, reporting suggests the program may be largely producing private benefits. According to Dr Chad Renando (sub. 77, p. 17), only 22% of participants identified a collective impact outcome and 5% had realised impact in these areas by the end of the program.

Similarly, a submission on the mentoring program reported benefits that largely appear private.

The program enhanced our employee's confidence, understanding of their strengths and weaknesses and provided strategies to advance their careers and increase their effectiveness. (Riverine Plains, sub. 29, p. 12)

There is a risk that leadership training will provide private benefits that do not clearly lead to more drought resilient practices. Activities that build the capability of local leaders to support drought preparedness in the community and provide better opportunities for trainees to gain practical experience – for instance through Hubs or RDRP activities – are more likely to deliver community-wide benefits. The *Helping Regional Communities Prepare for Drought* (Helping Regional Communities) initiative is expected to address this point by integrating leadership training opportunities into community impact grants.

The way forward

Better design of social resilience activities for community programs

FDF programs are required to address economic, environmental and social resilience – the triple bottom line approach – as far as practicable. However, the community programs focus on social resilience. While this approach might ensure that social outcomes are prioritised, there is no fund-wide approach to adjudicating the effectiveness of this mix.

Some participants have argued that social capital and wellbeing are better targeted through the Fund's environmental and economic programs:

The NFF supports ... the FDF focus on economic and environmental programs which residually support social capital. The Commission should recognise that social capital improvements are a natural, consequential outcome of many FDF existing programs. (NFF, sub. 64, p. 18)

Social resilience outcomes and investment are better integrated into natural resource management and economic programs. (Lu Hogan and Professor Lewis Kahn, sub. 62, p. 4)

However, the FRRR argues that the social resilience benefits from other programs are ancillary at best:

... the underlying conditions for building social resilience are not inherent to the other program streams. This includes designing for diversity, inclusion, formal and informal communication mechanisms, mental health and wellbeing, and leadership development. (FRRR, sub. 70, p. 5)

The Commission agrees there is a risk that other programs supporting social capital may not adequately focus on diversity, inclusion and wellbeing. However, to the extent that social resilience is not adequately addressed in other programs, this should be improved through better design and delivery of these activities.

The purpose of an entirely separate program stream should be to target the wider community beyond the agriculture sector, and be designed in a way that can deliver long-term change for local communities.

For these programs, activities most likely to deliver the greatest possible benefit include mental health and wellbeing initiatives, training for local leaders to support communities through drought and establishing enduring community connections. The benefit of these activities could be further improved by ensuring they are integrated where possible and designed with long-term change in mind. Leveraging regional planning processes to guide consolidated social resilience initiatives may provide an effective platform for this approach (discussed below).

In the Commission's view, it has not been clearly demonstrated that one-off networking events for farmers provide a significant value-add beyond traditional extension and adoption activities already undertaken in the sector and within other FDF programs. These activities should not be included in future iterations of the program.

Improving monitoring and evaluation of community programs

There is an opportunity for the Department to leverage the long-term nature of the Fund to better understand what activities can build social resilience to drought. Along with improved program design, there is an opportunity to invest in more effective MEL activities to allow underlying program assumptions to be tested and refined. The MEL plan for the community programs outlined measures of overall success and short-term outcomes with indicators such as the number of activities funded, number of participants, surveys of participant satisfaction, and changes in attitudes and learnings (DAFF 2023k).

Both pilot programs have reported on these short-term indicators. For the Networks program, FRRR measured success in developing social capital quantitatively through attendance numbers, growth in memberships for grantee organisations and growth in grantee connections with other groups. Qualitative evidence on project outcomes was provided through case studies and FRRR insights from grantee feedback (FRRR 2023d).

For the Leaders program, ARLF reported quantitative measures on the number of participants, geographical reach of the program, participants' self-reported change in leadership skills and mentoring benefits. It also provided some quotes from participants with their views on the benefits of the program (ARLF 2023).

While these reports provide evidence of outputs, more could be done to understand how they are leading to social resilience outcomes. This can partially be achieved through long-term MEL activities, but short-term indicators should also be sufficiently detailed to inform an understanding of the effectiveness of programs.

Developing a MEL framework for Phase Two

As part of the Helping Regional Communities initiative, an external MEL provider has been engaged to evaluate the program. This evaluation will build on phase one with more extensive interviews, surveys and evaluation from an external party. The aim is to build a more detailed and appropriate evidence base through:

- **regional working sessions** with delivery partners and others involved in the program to collaborate on designing the evaluation approach and ensure there is a clear understanding of how their projects aim to contribute to community and drought resilience
- **regional deep dives**, conducted twice during the program, to provide longitudinal case studies and detailed qualitative evidence on the impacts of the program (FRRR 2023c).

Several elements of the foundational program MEL activities provide learnings for improved MEL design.

For community grants, reporting should engage with people who participated in the program and the broader community, to understand different community perspectives on social resilience. For activities intended to build networks, reporting should focus on the quality of social connections made, beyond just measuring an increase in the size of networks. Finally, more detail should be included on the knowledge and practices that are helping communities prepare for the social impacts of drought. The most detailed reporting tended to come from activities that targeted mental health, whereas many networking events reported successful knowledge sharing around 'drought resilient practices' but provided little detail on what these practices were.

For the Leaders program, little reporting on activities or outcomes from the community extension grantees was provided to the Commission. Despite some evidence of leadership participants being involved in other FDF programs (for instance, some regional drought resilience plans), the Commission has not seen evidence that these connections have been monitored or reported on. Given the program's stated aim of combining formal leadership with opportunities for leaders to build community connections and deliver community benefits, MEL reporting for the Helping Regional Communities initiative will need to prioritise monitoring of these activities.

Targeting social resilience through regional planning

The Fund's foundational community programs took a nationally-led approach to building social resilience but engaged delivery partners with regional expertise to ensure grant funding was allocated through a community-led approach (DAWE 2020a, 2020g). This approach relied on the assumption that community organisations are best placed to know what services are useful and needed beyond their immediate members and have the capacity to provide this broader support and connection.

The RDRP program, which focuses upon broad community engagement, may provide a better reflection of community demand for social resilience activities. There are opportunities to better align the community programs with the RDRP program to strengthen the focus on place-based resilience activities.

This opportunity has informed the design of the next phase of the community programs, delivered through the Helping Regional Communities initiative. Along with integrating the networks and leadership activities, the initiative has also sought greater alignment with regional drought resilience plans, through:

- targeting regions that align with the RDRP regions
- preferencing organisations involved in regional drought resilience plans for project funding
- engaging a Community Partner Lead Organisation (CPLO) that was involved in the regional drought resilience plans for each region
- CPLOs and RDRP organisations being invited to participate in co-design of projects
- notification of activities for RDRP coordinators and state and territory contacts (DAFF, pers. comm., 7 February 2023, August 29 2023).

Phase two has only just commenced, so the Commission is unable to provide a complete assessment of this new approach. However, there are several risks the Department will need to manage to ensure the process is successful.

- If there is a significant increase in the number of plans developed beyond the pilot, resources will likely be strained in catering to all regions through this process, and some regions may miss out.
- Engaging RDRP participants to undertake another round of priority setting through CPLOs and community organisation planning may lead to further consultation fatigue and unnecessary duplication.
- While selection of CPLOs aims to be collaborative, it risks fragmented implementation of RDRP activities. Given the current governance and ownership challenges for regional drought resilience plans, this process will need to remain integrated with on-going planning activities and ensure that all RDRP stakeholders are given adequate opportunities to be involved.

To reduce these risks for the next iteration of the programs, the Department could consider strengthening this approach by ensuring regional planners are directly engaging with the FRRR during the planning process, rather than as a follow up process.

This approach should be reviewed by the Department during the next funding plan period to ensure it is genuinely meeting the needs of local communities. If the next iteration of community programs has challenges in targeting social resilience activities and monitoring outcomes, it is the Commission's view that the Department should investigate alternatives for delivering social resilience, including leveraging regional drought resilience plans more directly so that regional planners lead the process, rather than FRRR. This may be a more appropriate approach given it would provide regional planners with greater autonomy in how coordination occurs and the choice of which providers and community organisations they wish to engage.



Recommendation 7.6 **Better targeting of community programs**

The Department of Agriculture, Fisheries and Forestry should improve the Better Prepared Communities programs by:

- focusing support on community-wide activities and networks, leaving engagement with agricultural industry networks to other programs
- ensuring detailed reporting on the types of knowledge and practices being shared, to assist evaluation and build a stronger evidence base on what works
- reviewing at the end of the next Funding Plan whether the Helping Regional Communities Prepare for Drought initiative is best placed to target social resilience activities or if there should be greater emphasis on delivering social resilience through the Regional Drought Resilience Planning program.

A. Public engagement

The Commission has actively encouraged public participation in this inquiry. This appendix outlines the engagement process undertaken and lists the organisations and individuals that have participated in this Inquiry.

- Following the receipt of the terms of reference on 10 January 2023, an advertisement was placed in *The Australian* and *The Land*, and a circular was sent to identified interested parties.
- The call for submissions was released on 19 January 2023 to assist those wishing to make a written submission to the inquiry and an interim report was released on 13 June 2023.
- The Commission received 91 submissions, including 56 prior to the release of the interim report and 35 post the interim report (table A.1). Participants also made 32 brief comments on the review's website. The submissions and brief comments are available online at <https://www.pc.gov.au/inquiries/current/future-drought-fund/submissions>.
- Consultations were held with state and territory government agencies, private organisations and their peak bodies, industry groups, community groups, academics and researchers (table A.2).

The Commission would like to thank everyone that has participated in this Inquiry.

Table A.1 – Submissions

Participants	Submission no.
Adrian and Gayle	41
Ag Excellence Alliance	19
AgForce Queensland	45,66
AgRee Commodities	2
Australian Academy of Technological Sciences and Engineering (ATSE)	7
Australian Fodder Industry Association (AFIA)	72
Australian Land Conservation Alliance (ALCA)	16,78
Australian Pork Limited (APL)	31,76
Australian Red Cross	87
Australian Rural Leadership Foundation (ARLF)	81
Dr Chad Renando	77
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	8,80
Coutts J&R	68
David Blackett	44
Department of Agriculture, Fisheries and Forestry (DAFF)	42
Donald Yates	1
Farmers for Climate Action	65
Farming Systems Group Alliance (FSGA)	15
Foundation for Rural & Regional Renewal (FRRR)	37,70
Future Drought Fund Consultative Committee (FDF Consultative Committee)	3,69
GrainGrowers	12
Grower Group Alliance (GGA) and the South-West WA Drought Resilience Adoption and Innovation Hub (SW WA Hub)	30,86
Hayley Webster	61
Professor Hurriyet Babacan and Professor Allan Dale	58
Hydro Tasmania	40
Institute for Water Futures (IWF) and Centre for Entrepreneurial Agri-Technology (CEAT)	25,79
James Cook University (JCU)	83
Associate Professor Kate Gunn	59
La Trobe University	35
Lisa Anderson	75
Livestock SA	26
Local Government Association of Queensland (LGAQ)	22
Lu Hogan and Professor Lewis Kahn	5,62

Participants	Submission no.
Mallee Sustainable Farming (MSF)	9
Meat and Livestock Australia (MLA)	36
NACC NRM	21
Name Withheld	34
National Farmers' Federation (NFF)	17,64
National Landcare Network (NLN)	18
National Rural Health Alliance (NRHA)	27
Natural Resource Management WA (NRM WA)	13
Northern Hub	11,84
Not-For-Profit House (NFP House)	71
NRM Regions Australia	51,67
NRM Regions Queensland (NRMQR)	23
NSW Farmers' Association (NSW Farmers)	91
Queensland Department of Agriculture and Fisheries (Queensland DAF)	54,90
Rangelands NRM Coordinating Group	50
Regional Development Australia Central West (RDA Central West)	14
Regional Development Australia Tropical North (RDA Tropical North)	60
Regional Investment Corporation (RIC)	47
Riverine Plains	29
Rural Economies Centre of Excellence (RECoE)	38,63,
Shire of Dumbleyung	4
South Australian Department of Primary Industries and Regions (PIRSA)	53
South Australian Drought Resilience Adoption and Innovation Hub (SA Hub)	82
Southern Farming Systems (SFS)	43
Southern NSW Drought Resilience Adoption and Innovation Hub (Southern NSW Innovation Hub)	56,74
Southern Queensland and Northern New South Wales Drought Innovation and Adoption Hub (SQNNSW Hub)	24
Stanthorpe and Granite Belt Chamber of Commerce	10
TAS Farm Innovation Hub	39,89
Tasmanian Government	52
The Mulloon Institute (TMI)	6,57
Tropical North Queensland Drought Resilience Adoption and Innovation Hub (TNQ Hub)	33,88
University of Adelaide	32
University of Melbourne	48
Upper Mooki Landcare	73

Participants	Submission no.
Vic Catchments	20
Victoria Drought Resilience Adoption and Innovation Hub (Vic Drought & Innovation Hub)	28,85
Victorian Department of Energy, Environment and Climate Action (Victorian DEECA)	55
Wendy Schelbach	49
Western Australian Department of Primary Industries and Regional Development (WA DPIRD)	46

Table A.2 – Consultations

Participants
ACT Environment, Planning and Sustainable Development Directorate
AgForce
Agriculture Victoria
Agrifutures
Professor Alan Dale
Australian Bureau of Agricultural and Resource Economics and Sciences
Australian Dairy Farmers
Australian Farm Institute
Australian Local Government Association
Australia Pacific Climate Partnership
Australian Pork
Australian Rural Leadership Foundation
Australian Water Partnership
Brian Keating
Bureau of Meteorology
Cape York NRM
Coutts J&R
Commonwealth Scientific and Industrial Research Organisation
Deloitte
Department of Agriculture, Fisheries and Forestry
Department of Climate Change, Energy, the Environment and Water
Department of Foreign Affairs and Trade
Department of Regional NSW
Emma Boon
Facey Group
Far North Queensland Regional Organisation of Councils
Farmers for Climate Action

Participants

Fire to Flourish

Foundation for Rural & Regional Renewal

Future Drought Fund Consultative Committee

Grosvenor

Growcom

Grower Group Alliance

Gulf Savannah NRM

Hub Directors

Hub Knowledge Brokers

Hurriyet Babacan

Institute for Sustainable Futures

Joshua Gilbert

Landcare Australia

Lu Hogan and Professor Lewis Kahn

Merredin and Districts Farm Improvement Group

Merredin Drylands Research Institute

Mount Isa to Townsville Economic Development Zone

Murawin

NACC NRM

National Emergency Management Agency

National Farmers' Federation

National Landcare Network

New South Wales Department of Primary Industries

NRM North

NRM Regions Australia

NRM Regions Queensland

Noongar Land Enterprise Group

Northern Australia Infrastructure Facility

Northern Hub

Northern Territory Department of Industry, Tourism and Trade

Nous Group

NQ Dry Tropics

Queensland Department of Agriculture and Fisheries

Queensland Farmers' Federation

Rangelands NRM

Participants

Regional Development Australia Pilbara

Regional Development Australia Townsville and North West Queensland

Regional Investment Corporation

Rural Business Tasmania

SA Arid Lands Landscape Board

Shire of Dumbleyung

Shire of Kojonup

South Australian Department of Primary Industries and Regions

South Australian Drought Resilience Adoption and Innovation Hub

South Australian Research and Development Institute

Southern Dirt

Southern NSW Drought Resilience Adoption and Innovation Hub

Southern Queensland and Northern NSW Drought Resilience Adoption and Innovation Hub

South West Catchments Council

South-West WA Drought Resilience Adoption and Innovation Hub

Stuart Lockie

Tablelands Regional Council

TAS Farm Innovation Hub

Tasmanian Department of Natural Resources and Environment

Tasmanian Department of Premier and Cabinet Tasmania

Tasmanian Farmers and Graziers Association

Tasmanian Institute of Agriculture

Tasmanian Irrigation

Tasmanian Leaders

Terrain NRM

The Mulloon Institute

Torres Cape Indigenous Council Alliance

Tropical North Queensland Drought Resilience Adoption and Innovation Hub

Victorian Drought Resilience Adoption and Innovation Hub

Western Australian Department of Primary Industries and Regional Development

Wheatbelt Development Commission

Wheatbelt NRM

Yvette Everingham

Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ARLF	Australian Rural Leadership Foundation
BOM	Bureau of Meteorology
COAG	Council of Australian Governments
COVID-19	Coronavirus disease 2019
CSA	Climate Services for Agriculture
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DR.SAT	Drought Resilience Self-Assessment Tool
FBR	Farm Business Resilience
FDF	Future Drought Fund
FRRR	Foundation for Rural & Regional Renewal
HRCPI	Helping Regional Communities Prepare for Drought Initiative
ICIP	Indigenous Cultural and Intellectual Property
MEL	monitoring, evaluation and learning
NDA	National Drought Agreement
NRM	natural resource management
OECD	Organisation for Economic Co-operation and Development
PC	Productivity Commission
RDEA&C	research, development, extension, adoption and commercialisation
RDRP	Regional Drought Resilience Planning
RIC	Regional Investment Corporation
RNTBC	Registered Native Title bodies corporate

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