



**CRDC**

# MONITORING AND EVALUATION FRAMEWORK

2018–2023



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Published October 2018

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# 1.0 Introduction

The purpose of the CRDC's Monitoring and Evaluation Framework is to provide a coordinated approach for assessing CRDC's management strategies and to ensure that CRDC delivers impact in an efficient and effective manner through research, development and extension activities.

Clause 10.3 of CRDC's Statutory Funding Agreement (SFA) with the Australian Government states that the M&E Framework must:

- a. be consistent with CRDC's Strategic RD&E Plan
- b. ensure that the key performance-related information is routinely collected and monitored
- c. include a structured plan for the systematic evaluation of the efficiency, effectiveness and impact of CRDC's key investments; and
- d. include a means of publishing and disseminating relevant research and development outcomes and the outcomes undertaken under subclause 10.3c.

**This Framework was developed simultaneously with CRDC's Strategic RD&E Plan. The Plan for 2018–23 commenced on 1 July 2018. As CRDC's primary RD&E planning document, the Plan provides a high-level overview of CRDC's strategic direction over a five-year period. CRDC's vision is to power the success of Australian cotton through world-leading RD&E, and the Plan sets out how this will be achieved: the goals, investment approach, and planned impact.**

This Framework provides a consistent approach to measuring, monitoring, evaluating and reporting performance against desired outcomes, and to inform continuous improvement of CRDC. Specifically, the Framework aims to:

#### **Monitor performance**

- track and report on CRDC's progress towards desired outcomes

#### **Demonstrate impact**

- the extent to which outcomes have been achieved and the tangible impact of CRDC's investments

#### **Support accountability**

- to cotton growers, the cotton industry, the community and the Australian Government

#### **Meet multiple reporting requirements**

- CRDC will publish and disseminate relevant R&D outcomes and ensure robust evidence is available for reporting

#### **Inform improvements**

- regarding the effectiveness, efficiency and appropriateness of investments, partnerships, communication, and internal systems and processes

#### **Prioritise investments**

- align portfolio development with stakeholder needs and research priorities.

This Framework will be reviewed annually to ensure it remains fit for purpose and aligns with CRDC's five-year strategic planning.

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## Vision

Powering the success of the Australian cotton industry through world-leading R&D

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## Operational Management

Translates strategy into action

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## Monitoring & Evaluation

Drives accountability for results and performance

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## Five-year strategic RD&E plan

Defines research agenda

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## People Powering Performance

Individual performance aligned to strategy

Figure 1: Management strategies



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## 2.0 Context

### CRDC ROLE

CRDC's role is to invest in and manage a portfolio of RD&E on behalf of the Australian cotton industry and Government. These investments are designed to enhance the economic, social and environmental contribution of cotton for the benefit of cotton growers, the wider cotton industry, regional communities and the Australian public.

Based in Narrabri, New South Wales, CRDC is a statutory authority established in 1990 under the *Primary Industries Research and Development Act 1989* (PIRD Act). We are funded through an industry levy and matching Commonwealth contributions. CRDC's M&E Framework aligns with the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), which requires strengthened planning, performance and reporting for all Australian Government entities.

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## 3.0 Stakeholders

### CRDC STAKEHOLDERS

The results generated through the M&E Framework will be communicated to a range of stakeholders in a timely manner and through agreed-upon methods (see section 7). CRDC's key stakeholders include:

- Australian Government Department of Agriculture and Water Resources
- Co-investors
- Cotton Australia Grower Panel Representatives
- Cotton Australia, CRDC's representative organisation
- Council of Rural Research and Development Corporations (CRRDC)
- CRDC Board
- CRDC Executive leadership and staff
- Cotton industry levy payers
- Research providers.

Through communication with stakeholders, CRDC is able to demonstrate the impact and value that its investments in RD&E are delivering.

# 4.0 Goals and Targets

## GOALS

CRDC's M&E Framework is designed to indicate the degree to which CRDC's investments have contributed to the goals and targets detailed in CRDC's Strategic RD&E Plan. CRDC has identified three key goals within its Strategic RD&E Plan:



**Increase productivity and profitability on cotton farms**



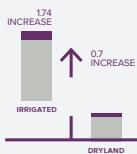
**Improve cotton farming sustainability and value-chain competitiveness**



**Build adaptive capacity of the cotton industry**

## TARGETS

The CRDC Strategic RD&E Plan is ambitious in that it seeks to create \$2 billion in additional gross value of production by developing a more innovative, profitable, sustainable and dynamic Australian cotton industry. Key targets in this bold initiative include:



**Increasing the five-year average cotton yield by 1.74 bales/ha in irrigated cotton, and 0.7 bales/ha in dryland cotton**



**Ensuring our biosecurity preparedness through two industry-led biosecurity scenarios**



**Supporting 50 researchers through strategic career pathways**



**Assisting to have 85% of cotton farms digitally enabled**



**Participating in six global sustainability initiatives**



**Supporting the availability of five new beneficial technologies**



**Commercialising five new cotton products**

CRDC's achievement against these goals and targets is demonstrated through outcome and impact monitoring (section 5.1), impact assessments (section 5.3.5), and stakeholder and industry surveys (5.3.6). Performance reports are outlined each year in the CRDC Annual Report using periodic traffic light reporting against CRDC's Key Performance Indicators, and corporate and operational compliance reporting.

CRDC's KPIs and targets are identified in the Strategic RD&E and Annual Operational Plans, which are available on the CRDC website <https://www.crdc.com.au/> publications. The KPIs are aligned to 12 Key Focus Areas (KFAs) and are reported on annually to the CRDC Board, and twice a year to the Australian Government at six-monthly Statutory Funding Agreement meetings.

# 5.0 Measuring and Reporting Impact

## 5.1 IMPACT PATHWAY

CRDC’s impact pathway is based upon a program logic model (Figure 3) that identifies CRDC’s intended outcomes, articulates a rationale for investments, and provides a line-of-sight through logically linked components:

- ▶ **INPUTS** – the resources used to deliver activities, produce outputs, and achieve outcomes

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- ▶ **ACTIVITIES** – the actions taken to produce outputs

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- ▶ **OUTPUTS** – the products or services generated from activities

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- ▶ **OUTCOMES** – the difference or change that results from services and outputs

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- ▶ **IMPACTS** – the long-term industry changes that CRDC has contributed to

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## 5.2 ACCOUNTABILITY

The impact pathway identifies a ‘line of accountability’, which should be considered when assessing CRDC’s performance. For example, inputs, activities, outputs and, to some extent, short-term outcomes that sit before the line of accountability are directly influenced by CRDC. This means that evidence can be collected

to demonstrate *attribution*. Longer term outcomes and impacts are influenced by CRDC and its investments, but they are also influenced by a range of external factors that collectively result in the realised change. Evidence can be collected to demonstrate CRDC’s *contribution* to longer term results.

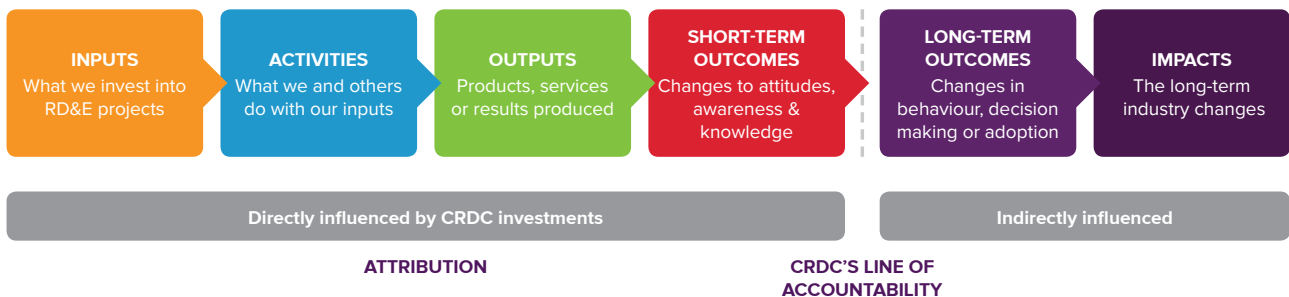


Figure 2: CRDC’s line of accountability

### 5.3 CRDC PROGRAM LOGIC MODEL

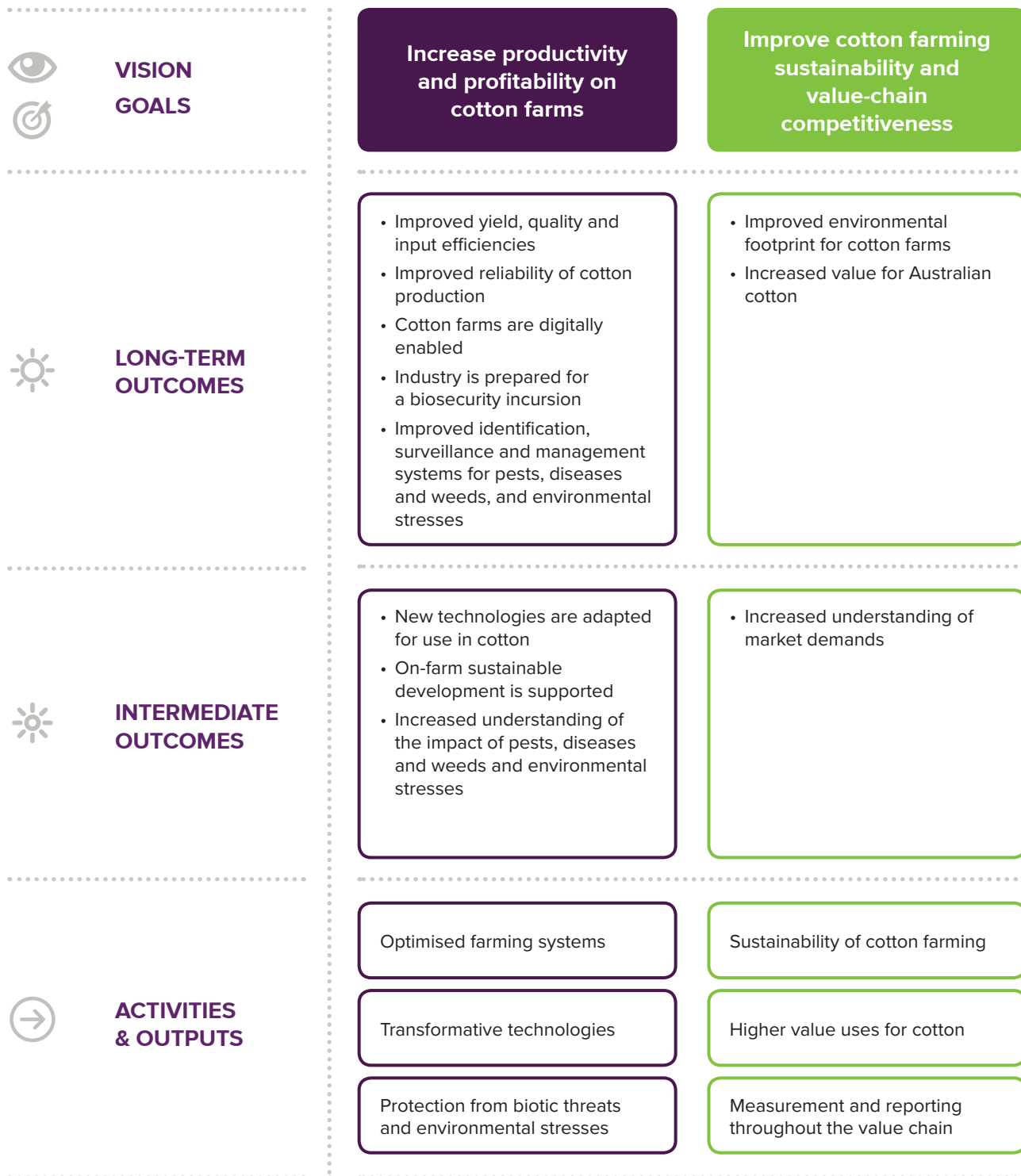


Figure 3: CRDC program logic model





### Build adaptive capacity of the cotton industry

- Science and innovation capacity is strengthened and strategically fit for a digital future
- Australian cotton farmers are able to adapt to change

- Increased understanding of the diverse human capital in regional communities
- Increased opportunities for innovation skills development
- Increased opportunities for strategic foresighting

Science and innovation capability and new knowledge

Futures thinking

### Strengthening partnerships and adoption

- CRDC-funded projects demonstrate value and return on investment
- New knowledge and evaluation results have led to internal improvements to CRDC's systems and processes

- CRDC investments meet grower, industry and government needs
- CRDC monitors and evaluates RD&E impact
- Growers, the cotton industry and government are informed and aware of R&D outcomes and CRDC's progress and performance

Partnerships and collaboration

Best practice (*myBMP*)

Innovation and commercialisation

### Driving RD&E impact

- Best practice is based on science and measured impact
- Growers/consultants value CRDC farming systems and research outcomes
- Improved R&D innovation and commercialisation

- Partnerships are strengthened to engage multi-disciplinary and multi-institutional resources
- CottonInfo partnership is maintained and practice change improved

Measuring and reporting impact and effectiveness

# 5.4 Monitoring and Evaluation

## 5.4.1 PLANNING AND INVESTMENT

### Five-year strategic planning

Every five years, CRDC develops a five-year strategic RD&E plan. During the planning phase of development, extensive consultation using a formal strategic foresighting process identifies where to invest RD&E funding for the next five years. This involves environmental scanning, identifying drivers and trends affecting the cotton industry, and examining world views and the cotton industry's preferred future.

### Annual planning

To ensure an optimally balanced RD&E investment portfolio and alignment with five-year strategic goals, CRDC investment priorities are assessed annually in consultation with grower associations, Cotton Australia, and the Australian Government. RD&E priorities are identified at an annual grower forum, and expressions of interest are developed to address identified priorities. Research proposals addressing the priorities are evaluated individually and, in some cases, at a portfolio level where consideration is given to how multiple projects are necessary to achieve specific outcomes.

CRDC is committed to ensuring RD&E investments meet the needs of stakeholders and align with industry and government priorities. In managing the portfolio balance, CRDC aims to:

- meet industry RD&E needs through investing in annually identified priorities
- add value through collaboration and leveraging, where practicable
- optimise outcomes and impact
- have the right balance of projects (low, medium and high risk) to deliver anticipated outcomes
- have the right scale of investment
- effectively manage projects to ensure they deliver agreed outcomes
- maximise returns for stakeholders.

## 5.4.2 INPUT MEASUREMENT

Project-level monitoring and evaluation is carried out at multiple points during a project lifecycle (initiation, implementation and completion). It ensures projects are delivered as planned, and that identified risks are managed early in the implementation phase to limit any adverse impacts.

Ex-ante evaluation determines which new projects will be recommended for investment in any given year. Each project is assessed against specific criteria to ensure they are appropriate, methodologically sound, and will benefit the industry. Grower panels evaluate project submissions to ensure they address identified priorities, and then make recommendations for investment to the CRDC Board.

## 5.4.3 OUTPUT MEASUREMENT

CRDC R&D investment and impact managers supervise programs of work through regularly scheduled and standardised milestone and output submissions. They monitor each project with milestone and output tracking. Where appropriate, projects include 'stop/go' milestones. If the stop/go milestone is not achieved satisfactorily, funding will cease and the future of the project is negotiated.

Projects of five years or longer are evaluated mid-term to provide a more rigorous assessment of performance and to ensure any changes or new knowledge can be incorporated. The results of project tracking and mid-term evaluations are used to assess performance, identify issues, and inform potential improvements to project delivery.



#### 5.4.4 OUTCOME MEASUREMENT

CRDC's outcome assessment measures the achievement of short-term and mid- to long-term outcomes. Short-term outcomes cover changes in awareness and knowledge that occur as a direct result of CRDC investment. Mid- to long-term outcomes cover practice or behaviour change (adoption) that are indirectly influenced by CRDC.

CRDC outcome assessments are informed by project completion evaluation results and final reports, and by performance monitoring and assessment. Key sources of information to identify and demonstrate the achievement of outcomes include data collected through commissioned evaluation projects, stakeholder surveys, and an assessment of delivered outputs. CRDC maintains its project information, including outputs and outcomes, in its project management database.

#### 5.4.5 IMPACT ASSESSMENT

Each year, independent external economists evaluate impact and return-on-investment through triple bottom line (economic, environmental, and social) reporting and cost-benefit analysis, in line with Council of Rural R&D Corporation guidelines. CRDC managers select completed projects in clusters for ex-post-evaluation based on the CRDC Strategic RD&E Plan. All goals with completed projects are evaluated on a rolling five-year program, and the reports published on the CRDC website.

In partnership with CottonInfo (a joint venture partnership in extension between CRDC, Cotton Australia and Cotton Seed Distributors), CRDC provides indicative examples of the tangible impact of the adoption of R&D outcomes through case studies. The development of case studies involves a comprehensive assessment using interviews, surveys and an examination of a range of supporting data. Case studies also provide an opportunity to examine and explain the role of the multiple players in the eventual long-term results achieved. As an important communication tool, case studies are used to inform and educate partners and stakeholders about the tangible benefits of CRDC investments.

#### 5.4.6 GROWER AND STAKEHOLDER SATISFACTION

Each year, CRDC engages external consultants to conduct grower and crop consultant surveys. These provide valuable insights into the demographics of the industry, on-farm metrics, practice change, future needs and satisfaction with CRDC RD&E outcomes, and communication and engagement. Survey data is a key source of evidence for performance monitoring, and outcome and impact assessment. Additionally, stakeholder surveys completed every two years provide more metrics about satisfaction levels and performance from CRDC's representative organisation, research providers, supply chain members and consumers.

# 6.0 Corporate and Operational

## 6.1 FINANCIAL PERFORMANCE, PLANNING AND PROCESS IMPROVEMENT

Financial performance is measured through management, audit committee and Board review of management reports. Reports provide a balance of financial and nonfinancial metrics to analyse current performance and projections of future performance. The CRDC Board approves the annual budget following review by the Audit Committee. The budget is determined through consideration of strategy, risk, long-term plans, and current priorities. The budget is reviewed quarterly and may be adjusted to account for changes in seasonal outlook. Longer term planning, in the form of a five-year rolling forecast, is formally reviewed by the CRDC Board every six months.

Assurance and review of controls and process occurs through both internal and external audit functions. An independent external auditor appointed by the Australian National Audit Office tests transactions and controls to provide stakeholders with an independent opinion on whether the financial position represents a true and fair view of performance. The external auditor also provides annual assurance that the organisation satisfies the financial terms of the SFA.

Independent internal auditors are engaged through a three-year rolling program to provide the Audit and Risk Committee and the Board with assurances about the quality of management practices, processes and controls.

Areas of internal audit focus are informed by risk considerations, strategy and required performance. The internal audit reports on risk, status and recommendations and, together with management, mitigating actions are agreed. The Audit and Risk Committee reviews the execution and implementation of agreed actions and reviews the internal audit program annually.

## 6.2 CORPORATE GOVERNANCE

CRDC is a statutory authority established in 1990 under the PIRD Act. CRDC's charter under the PIRD Act is to invest in and manage a portfolio of research, development and extension projects and programs in order to secure economic, environmental and social benefits for the Australian cotton industry and the community. Since 1 July 2013, CRDC has been subject to the *Public Governance, Performance and Accountability Act 2013*, which provides enhanced levels of accountability as well as a planning and reporting framework.

## 7.0 Reporting

Evaluation results and ongoing CRDC activities, objectives and desired outcomes will be reported to stakeholders at agreed timeframes. The following table outlines CRDC's primary reporting requirements.

In addition to formal reporting, CRDC communicates with and informs stakeholders about CRDC investments and their impacts. It also provides research summaries and information about the role and value of CRDC through a range of channels, including:

- the CRDC website
- various publications, such as *Spotlight* magazine
- media (news/radio)
- social media
- events
- e-newsletters.

REPORT	CONTENT	STAKEHOLDER	TIMING
Annual Performance Statement	Documents CRDC's performance against impact statement and high-level indicators	Commonwealth Department of Agriculture and Water Resources	Annually
Annual Report	CRDC's strategic objectives, RD&E investments, activities, key achievements against outcomes and financial situation	All stakeholders	Annually - November
Statutory Funding Agreement: Compliance Report	Documents CRDC's compliance with legislative requirements	Commonwealth Department of Agriculture and Water Resources	6 monthly
Annual Operational Plan	Outlines the portfolio balance, alignment with priorities, and RD&E investments	All stakeholders	Annually - May
Portfolio Budget Statement	Summary of investment across the portfolio, details the financial situation of CRDC, investments committed, outstanding	Australian Government	Annually
Project milestone reporting	Progress reports against project objectives	CRDC management	Ongoing
Project progress reports (RAG Report)	Details the progress of RD&E projects against agreed milestones	CRDC Board	6 monthly





World-leading RD&E

**The Australian cotton industry is an agricultural success story. A culture of innovation within the industry, which embraces RD&E, has been a major contributor to this success.**





**CRDC**

[www.crdc.com.au](http://www.crdc.com.au)