

## Monitoring, Evaluation, Reporting and Improvement Report

**Project**    **BSC Exclusion Fencing Program**

**Report February 2024**

Organisation name:	Balonne Shire Council
Organisation Address:	118 Victoria Street St George QLD 4487 Tel: 07 4620 8888
Project Manager:	Digby Whyte
MERI Coordinator <a href="#">[if different to project manager]</a>	Digby Whyte
Version date:	27 <sup>th</sup> February 2024

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# BSC MERI Report February 2024

## 1.0 Executive Summary

The Balonne Shire Council (BSC) has sourced funding from the Communities Combating Pest and Weed Impacts during Drought (CCWI), the Murray Darling Basin Economic Development Program (MDBEDP) and two rounds of Special Rate Scheme (SRS Round 1 and SRS Round 2) funded by Queensland Treasury through BSC. A total of 1,692km of fencing is currently being constructed, which encompasses an area of 695,554 ha on 87 properties.

This report is a Monitoring, Evaluation, Reporting and Improvement (MERI) report at inception of the project to record a baseline of data as well as expectations from stakeholders over a 10 year period from 2021 to 2031.

The green data in the 2023 column below is based on data collected from participants in 2023. The data for 2031 is based on expectations of change over that time. The MERI Goal is an estimate of what is possible over time. MERI reporting will replace the estimates for 2031 with actual data when it is available. In this way it is possible to see if the program is on track to achieve it's overall goal. Note it is assumed below that there will be no more Government funding after the current rounds and that future exclusion fencing will be funded by proponents. There is currently an estimated 6,000km of private fencing either constructed, being constructed or planned to be constructed.

Key Indicator	Unit	Existing fencing prior to BSC funding programs	2021 BSC Funding Programs	2023 BSC funding programs	2031 BSC funding programs + private fencing	MERI Goal BSC funding programs + private fencing
Area fenced	ha	1,200,000	594,500	695,554	2,400,000	
Proportion of Ag area fenced	%	39%	19%	22%	77%	80%
KM fencing	km		1,520	1,692	8,000	
Properties fenced	#		73	87	300	
Government funding	\$		9,478,584	12,719,093	12,719,093	
Proponents funding	\$	34,000,000	8,104,734	10,042,817	45,000,000	
Total funding	\$		17,583,318	22,761,910	57,719,093	
Benefit:cost ratio on Government funding	\$		2.86	2.22	2.22	
Landholder Benefit:cost ratio	\$		3.01	1.87	1.87	
Increased Agricultural Income per year in BSC	\$		\$ 22,973,000	\$ 34,683,000	\$ 154,887,401	\$ 100,000,000
Increased investment by landholders as a result of fencing	\$		\$ 7,900,000	\$ 42,000,000		
Increased BSC AG jobs	#		68	116	140	150
Increased BSC Other jobs	#		68	116	140	150
Increased BSC Total jobs	#		136	232	280	300

Program	Fencing Cost	Landholder Contribution	Funding
SRS Round 1	4,449,346	1,279,346	3,170,000
SRS Round 2	3,263,713	890,620	2,373,093
CCWI	1,585,000	785,000	800,000
MDBEDP R1	10,542,504	5,542,504	5,000,000
MDBEDP R3	2,921,347	1,545,347	1,376,000
<b>Total</b>	<b>22,761,910</b>	<b>10,042,817</b>	<b>12,719,093</b>

Approximately \$100 million dollars has been invested in the region over the last 5-6 years, to improve agricultural enterprises. This consists of \$44m in landholder funds for fencing. Approximately \$13m in Government grants and special rate schemes related to fencing and \$42m in improvements to fixed assets arising from the exclusion fencing program. It is estimated that this investment in the region will over time lead to an increase in the value of agricultural production in Balonne Shire of at least \$100 million per year.

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### Notes:

1. Existing fencing prior to BSC funding programs was provided by Biosecurity QLD data in 2021. (Fence Measurements by Shire)
2. Proponents funding for fencing prior to BSC funding programs was estimated at \$10,000 per km.

### Key points from the 2023 MERI and landholder survey.

1. **More than 60% of the shire is now fenced with exclusion fencing.**
2. **Approximately \$100m has been invested in fencing, and capital expenditure on properties that have been fenced, over the last 3-5 years.**
  - a. **This investment will result in improved productivity and regional incomes.**
  - b. **The investment signals increased confidence and resilience in rural enterprises. Note there are also linkages to improved seasonal conditions after the drought of 2018/19 and also the improvement in commodity prices over the period 2022/23 in particular.**
3. **Increased Agricultural income in the Balonne Shire related to landholders who have participated in exclusion fence programs is measured at \$34m per year from;**
  - a. **Reduced crop losses**
  - b. **Reduced stock losses and improved reproductive performance in livestock enterprises**
  - c. **Better pasture management with control over total grazing pressure resulting in increased productivity over time**
4. **Exclusion fencing has not resulted in a return to wool sheep production. Wool sheep numbers are forecast to be relatively consistent. Growth in livestock numbers will be more related to goats, cattle and meat sheep.**
5. **Based on the exclusion fence landholder survey, cattle and cropping are the main enterprises that will see expansion over the next 5 years.**
6. **Increased Agricultural income in the Balonne Shire could be \$150m per year by 2031. This can be measured every 5 years from the ABS census. Exclusion fencing will contribute to this increase in Agricultural Income.**
7. **While the original expectations may have been increased labour usage with a return to “small stock”, the overall increase in productivity and investment by landholders with exclusions fences, will see an increase in Ag employment of 116 FTE's based on the 2023 landholder survey of future employment. Based on an assumed 1 additional non Ag job for every new Ag job, this will see a total increase in employment of 232 FTE's.**

### 2.0 MERI Plan Purpose

The continuous and integrated cycle of **monitoring, evaluation, reporting and improvement** is referred to as **MERI**.

A project MERI plan articulates all the different aspects of MERI that will be needed and how they will be implemented over the life of the project.

This project MERI plan:

- Guides MERI for the BSC Exclusion Fencing
- Provides a base from which to review the progress the project is making towards the agreed targets and outcomes, and from which to learn about successful implementation strategies and to adapt in response to lessons learnt.

### 2.1 MERI stages

MERI planning covers the three-phase cycle of preparation, implementation and review:

- i. **Preparation** — involved first developing the project Program Logic and using it to develop the MERI Plan. This occurred before project implementation.
- ii. **Implementation** — of the plan provides for ongoing monitoring of progress, periodic evaluation of impact and achievements, and reporting to all Stakeholders. The evaluation process has been developed to suit length of the project and provides for progress reporting.
- iii. **Review** — of the MERI plan will occur at the end of the project. This will enable: project assumptions to be tested; an assessment of progress in delivering the targets identified in the funding Deed; a review of management and delivery processes/ techniques; identification of recommendations for improvement; and assessment of the effectiveness of the project in delivering against its objectives.

### 3.0 Scope

The box below contains a brief project description that includes an outline of the BSC Exclusion Fencing Project(s) and the rationale for investing in the project, and the boundaries of the project.

*The agricultural industries in the Balonne Shire have faced significant economic challenges over the last 10-15 years from a combination of extended drought impacting all industries, commodity price fluctuations, wild dog and other pest animals impacting livestock and cropping enterprises. This has had a combined negative impact on agricultural jobs, creating a downward spiral in smaller communities. Exclusion fencing has been proven in other agricultural areas of QLD to be effective in controlling pest animals and giving primary producers greater flexibility in relation enterprise selection. By BSC supporting the exclusion fence program in the region, the council is helping to ensure the ongoing viability of primary producers as well as creating an opportunity for increased employment in agriculture through investment and an increase in the gross value of production in the region.*

Table 1 shows the primary users or the key people who will use this MERI plan to organise data collection, analysis and reporting. The secondary users are people who may benefit from understanding and being aware of this MERI plan.

**Table 1**      **Key users of this MERI plan**

Primary users: <b>who will reflect and adapt</b>	BSC management, exclusion fence participants
Secondary users: <b>who need to be aware of this plan</b>	BSC community

### 4.0 Program Logic

Program logic is a key element of an evaluation process as it shows a series of expected consequences, not just a series of events, at different outcomes levels within the logic. The program logic describes the relationships between activities and desired outcomes.

See Attachment 1 to this document for the program logic for the BSC Exclusion Fencing Program Logic.

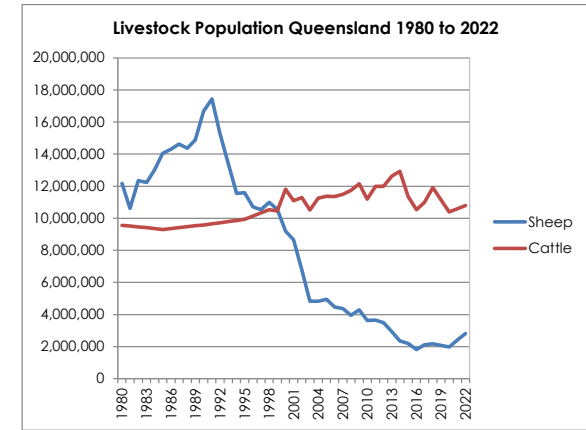
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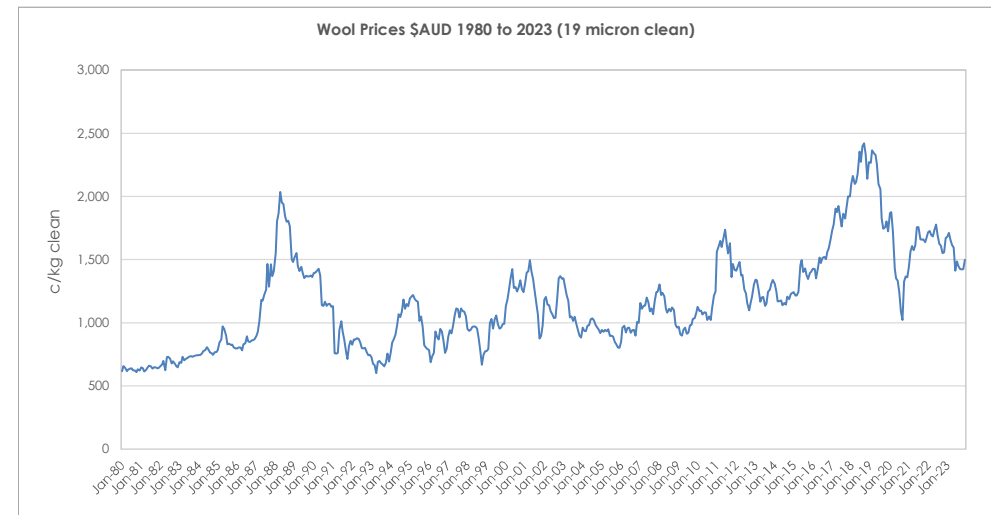
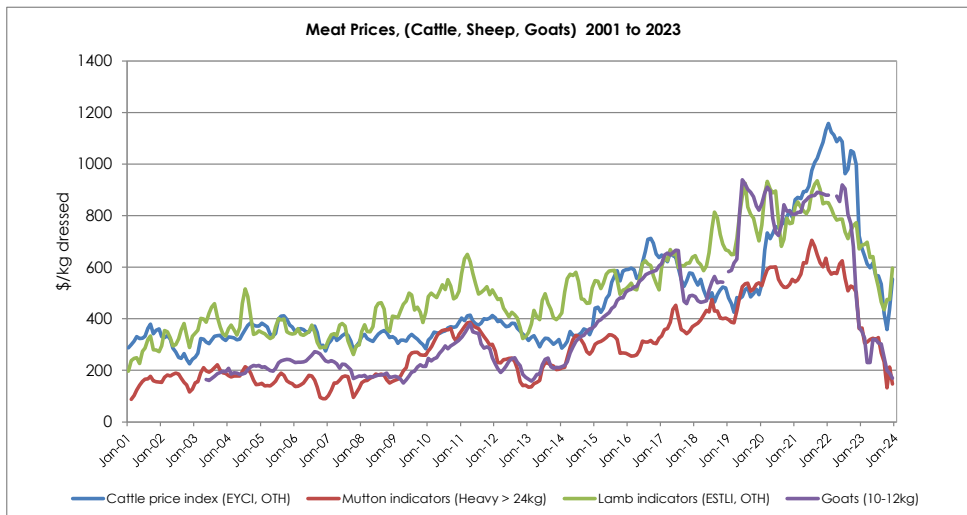
## 5.0 Background

The macro changes in agriculture in Southern and Western QLD over the last 20 years have included the following;

- The wool price collapsed in around 1990-92 and stayed low for an extended period, before escalating in 2019, followed by a significant drop in 2020 (COVID impact with reduced exports to China).
- Sheep numbers in QLD declined by around 85% from 18 million in 1990 to around 2million in 2017. Sheep numbers in 2022 were back up to around 2.8m in QLD.
- The influence of wild dogs has been a factor that has prevented or detracted from graziers increasing sheep numbers.
- On a stocking capacity basis, the reduction in sheep numbers has largely been replaced with cattle. The reduction in cattle numbers 2013 to 2017 is due to drought.
- Cattle use less labour than wool sheep.
- Agricultural jobs have declined.
- In the western regions that are more reliant on agriculture, this has caused a flow on effect to declining population.
- In the eastern part of Western QLD, (Maranoa, Western Downs, Goondiwindi, Southern Downs) population has not declined to the same extent due to a broader economic base within these regions.



- Meat prices declined from a peak in 2021/22 to a low in September 2023. Cattle prices declined by 70%, goat prices by 80%. Cattle and lamb prices have made some recovery. Mutton and Goat prices are yet to show signs of significant recovery.





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By comparison the change in sheep numbers, agricultural jobs and population is shown below for the regions, where the majority of exclusion fencing is occurring.

**Table 2 Key metrics for QFPI regions**

	2001	2016	2021	Change	
				01-16	16-21
<b>Sheep numbers</b>					
RAPAD	3,728,946	389,394	677,440	-90%	74%
SQL	3,037,446	743,447	834,523	-76%	12%
Maranoa	453,242	131,775	127,726	-71%	-3%
Goondiwindi	488,006	267,681	177,091	-45%	-34%
Western Downs	230,467	78,688	54,333	-66%	-31%
Southern Downs	235,543	77,470	54,828	-67%	-29%
	8,173,650	1,688,455	1,925,941	-79%	14%
<b>Agricultural Jobs</b>					
RAPAD	1,970	1,255	1,254	-36%	0%
SQL	4,963	3,587	3,544	-28%	-1%
Maranoa	1,822	1,286	1,245	-29%	-3%
Goondiwindi	1,683	1,286	1,251	-24%	-3%
Western Downs	4,008	2,763	2,732	-31%	-1%
Southern Downs	2,622	1,902	1,898	-27%	0%
	17,068	12,079	11,924	-29%	-1%
<b>Population</b>					
RAPAD	13,463	9,829	9,884	-27%	1%
SQL	32,442	26,525	24,101	-18%	-9%
Maranoa	12,298	12,926	12,960	5%	0%
Goondiwindi	10,312	10,813	10,404	5%	-4%
Western Downs	26,873	34,049	34,360	27%	1%
Southern Downs	30,427	35,638	36,641	17%	3%
	125,815	129,780	128,350	3%	-1%

(ABS, 2023)

**Table 3 Key metrics for South West regions**

	2001	2016	2021	Change	
				01-16	16-21
<b>Sheep numbers</b>					
Balonne	696,806	360,705	396,004	-48%	10%
Maranoa	453,182	126,628	127,726	-72%	1%
Murweh	456,715	58,672	99,066	-87%	69%
	1,606,703	546,005	622,796	-66%	14%
<b>Agricultural Jobs</b>					
Balonne	1,244	756	738	-39%	-2%
Maranoa	1,888	1,280	1,245	-32%	-3%
Murweh	598	353	321	-41%	-9%
	3,730	2,389	2,304	-36%	-4%
<b>Population</b>					
Balonne	5,417	4,461	4,378	-18%	-2%
Maranoa	11,369	12,926	12,957	14%	0%
Murweh	4,936	4,386	4,009	-11%	-9%
	21,722	21,773	21,344	0%	-2%

For Balonne Shire, the 2016-2021 compared to the 2001 to 2016 period, shows a turnaround in sheep numbers, and a plateauing of the decline in agricultural jobs and likewise with population.

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## 6.0 MERI Reporting

**Table 4 MERI Summary**

That the BSC Exclusion Fencing program funding to be a catalyst for growing jobs and achieving significant improvement in the profitability of regional businesses (both rural and non-rural) through the demonstration of the economic, social and environmental benefit of exclusion fencing.				Existing fencing prior to BSC funding programs	Review 1 (2021)	Review 2 (2023)	Review 3 (2026)	Review 4 (2031)	2031 Forecast plus Census data where possible (Note 17)	
Targets	Notes	Measurement	Level 1	Level 2	Level 2	Level 2	Level 2	Level 2	Level 4	
Direct Impacts			Baseline	Actual	Actual	Actual	In progress	In progress	Target	Actual
<b>Project Metrics</b>										
Hectares fenced	1	ha		1,200,000	581,589	695,554			2,400,000	
Kilometres of fencing	1	km			1,522	1,692			8,000	
Number of properties	1	#			73	87			300	
<b>Planned accumulated capital cost of fencing</b>										
SRS-Round 1	1	\$			2,690,284	4,796,332			4,796,332	
SRS-Round 2	1	\$			1,618,198	2,411,493			2,411,493	
CCWI	1				832,788	545,184			545,184	
MDEDP (1)	1				4,337,314	5,271,252			5,271,252	
MDEDP (3)						1,432,650			1,432,650	
Landholder Contribution	1	\$		34,000,000	7,456,356	9,481,184			45,000,000	
<b>Total</b>		\$			<b>16,934,940</b>	<b>23,938,095</b>			<b>59,456,911</b>	
<b>Livestock in clusters</b>										
<b>Before</b>										
Wool Sheep	2	#			50,049	71,354				
Meat Sheep	2	#			17,085	13,117				
Cattle	2	#			39,275	39,307				
Goats	2	#			28,482	52,901				
<b>After</b>										
Wool Sheep	2	#			80,802	99,737				
Meat Sheep	2	#			100,198	40,528				
Cattle	2	#			42,873	54,968				
Goats	2	#			85,224	116,020				
<b>Reproduction rates within the fenced area</b>										
<b>Before</b>										
Wool Sheep	2	%			77%	85%				
Meat Sheep	2	%			78%	86%				
Cattle	2	%			80%	80%				
Goats	2	%			67%	93%				
<b>After</b>										
Wool Sheep	2	%			101%	100%				
Meat Sheep	2	%			132%	125%				
Cattle	2	%			91%	91%				
Goats	2	%			112%	122%				

# BSC MERI Report February 2024

## BSC MERI Summary continued

That the BSC Exclusion Fencing program funding to be a catalyst for growing jobs and achieving significant improvement in the profitability of regional businesses (both rural and non-rural) through the demonstration of the economic, social and environmental benefit of exclusion fencing.				Existing fencing prior to BSC funding programs	Review 1 (2021)	Review 2 (2023)	Review 3 (2026)	Review 4 (2031)	2031 Forecast plus Census data where possible (Note 17)	
<b>Targets</b>	<b>Notes</b>	<b>Measurement</b>	<b>Level 1</b>		<b>Level 2</b>	<b>Level 2</b>	<b>Level 2</b>	<b>Level 2</b>	<b>Level 4</b>	
<b>Direct Impacts</b>			<b>Baseline</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>In progress</b>	<b>In progress</b>	<b>Target</b>	<b>Actual</b>
<b>Project Metrics</b>										
<b>Crop Growing Benefits</b>										
Improvement in Crop Gross Margin	2	\$			3,439,000	8,337,406				
<b>Change in management</b>										
All participating landholders have a current Pest Management Plan	3	#			73	87			300	
<b>Benefit Cost</b>										
Benefit:cost ratio on External funding per year every year for \$1.00 upfront External Expenditure	4	\$			\$2.86	\$2.22			\$2.22	
Landholder Benefit:cost ratio per year every year for \$1.00 upfront contribution	4	\$			\$3.27	\$1.87			\$1.87	
Increased Gross Margin in Cropping due to Pest Control	5	\$			\$3,400,000	\$8,300,000			\$29,000,000	
Increased Agricultural Income per year in BSC	6	\$			\$22,973,000	\$34,683,000			\$154,887,401	
Investment in Capital expenditure by landholders	7	\$			\$7,300,000	\$42,000,000			\$30,100,000	
<b>Regional Impacts</b>										
Wool	8	ABS Commodities	12,390,835		12,022,353				12,000,000	
Livestock slaughtering	8	ABS Commodities	115,936,242		70,357,706				130,000,000	
Broad Acre Cereal crops and pulses	8	ABS Commodities	128,212,044		176,473,961				180,000,000	
Cotton (irrigated and dryland)	8	ABS Commodities	100,573,478		164,915,199				190,000,000	
Total Broadacre livestock and crops		ABS Commodities	357,112,599		423,769,219				512,000,000	

Total Broadacre livestock and crop income as per the 2016 ABS census was \$357m. In the 2021 ABS census, this was \$423m, despite a reduction of \$45m in livestock slaughtering due to drought and reduced numbers. For 2031, I have estimated income based on the following general assumptions. Wool income will remain the same as wool sheep numbers are not increasing substantially. Meat income (livestock slaughtering) will exceed the 2016 ABS census data with increases in meat sheep, goats and cattle numbers. Broad acre cereals will exceed 2021 census data with better protection from pests and increased area. Cotton income will increase from 2021 for the same reasons. This results in agricultural income of \$512m which is \$150m higher than 2016.

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## BSC MERI Summary continued

That the BSC Exclusion Fencing program funding to be a catalyst for growing jobs and achieving significant improvement in the profitability of regional businesses (both rural and non-rural) through the demonstration of the economic, social and environmental benefit of exclusion fencing.			Existing fencing prior to BSC funding programs	Review 1 (2021)	Review 2 (2023)	Review 3 (2026)	Review 4 (2031)	2031 Forecast plus Census data where possible (Note 17)		
Targets	Notes	Measurement	Level 1	Level 2	Level 2	Level 2	Level 2	Level 4		
Direct Impacts			Baseline	Actual	Actual	Actual	In progress	In progress	Target	Actual
Project Metrics										
Total km of exclusion fencing (all properties)	9	Km of fencing to be constructed		3,500	5,022	5,192			8,000	
Proportion of region protected with exclusion fencing	10	% of region with exclusion fencing	3,111,900	38.56%	57.25%	60.91%	0.00%		77.12%	
Exclusion fencing is a catalyst for other fencing in the region	11	Total area protected by exclusion		1,200,000	1,781,589	1,895,554			2,400,000	
Sheep Numbers	12	ABS Ag Census data Sheep Numbers	360,705		396,004				430,000	
Cattle Numbers	13	ABS Ag Census data Cattle Numbers	180,673		122,546				190,000	
Goat Numbers	14	ABS Ag Census data Cattle Numbers							400,000	
Employment in the region	15	https://economics- indicators.id.com.au/	2,418		2,149				2,558	
New Agricultural Jobs	15				68	116			140	
Agricultural employment	15			756		738			896	
Increase in population in the region	15				408	696			840	
Population in the region	15			4,461		4,378			5,301	
Health and Well Being										
Landholder baseline attitudinal survey - see attached	16	Survey	Baseline		Survey results attached	Survey results attached	Survey results attached	Survey results attached	Survey	

### Notes to table

1. Exclusion fence data supplied by BSC.
2. Survey responses June 2021.

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3. All funding recipients are required to have a Pest Management Plan.
4. Benefit Cost calculations calculated as per Appendix 2.
5. Increased crop income based on trends from Survey responses June 2023.
6. Increased annual income in BSC based on Cost Benefit analysis (Appendix 2) Cereal crop losses \$3.5m, pulses \$3.8m, cotton \$1m.
7. Increased investment in capital expenditure as a result of completing exclusion fencing. Survey responses June 2023.
8. Sheep, cattle and broad acre cropping income ABS 7503.0 for BSC as per 2016 and 2021 census.
9. Exclusion fencing in the BSC over time including private fencing. (Includes data from Biosecurity QLD on QLD exclusion fencing)
10. Base data is Hectares of land used for Agricultural Production (ABS 7121 2001). Proportion of the region fenced with exclusion fencing over time including private fencing.
11. Hectares fenced with exclusion fencing over time including private fencing.
12. Sheep numbers (ABS 7121 2016, 2021). Calculated sheep numbers in 2031 based on trends from 2023 survey of initial exclusion fencing.
13. Cattle numbers (ABS 7121 2016, 2021). Calculated cattle numbers in 2031 based on trends from 2023 survey of initial exclusion fencing.
14. Goat numbers not included in ABS census data. Calculated goat numbers in 2031 based on trends from 2023 survey of initial exclusion fencing.
15. Agricultural and total jobs and population 2016, 2021 (EconomyID, 2023). Estimated increase in agricultural jobs based on survey data 2023 that relates to expectations of future employment numbers and forecast changes in livestock numbers. Increased service sector jobs (non-Ag) are assumed to be 1:1 for new Ag jobs, within the Balonne Shire. Increased jobs applied to increased population at the rate of 3 persons per additional FTE.
16. Landholder attitudinal survey completed in June 2023. Results summarised in Section 7.
17. Updated based on data from 2031 census (June 2032). Assumes no more Government funding, however increased private fencing based on the example shown by the cluster fencing participants.

## 7.0 Change in enterprise

The table below is the results from the survey of participating landholders.

**Table 5 Enterprise mix data from survey participants**

Livestock	Current Numbers	DSE current	Pre fencing	DSE pre fencing	5 years after fencing	DSE 5 years after fencing
Meat Sheep	19,610	19,610	11,407	11,407	35,244	35,244
Wool Sheep	65,984	65,984	62,051	62,051	86,733	86,733
Cattle	41,801	351,130	34,182	287,129	47,802	401,534
Goats	87,003	87,003	46,004	46,004	100,894	100,894
Other						
<b>Total</b>		523,727		406,591		624,406

Key outcomes from the livestock survey are as follows. Overall DSE's are forecast to increase. I believe that is in part because the region is coming out of an extended drought. ABS data shows the overall livestock numbers for 2001, 2016 and 2021 showing the reduction in sheep numbers and an increase in cattle numbers, however there is an overall reduction in estimated DSE's over this period. There is a further reduction in livestock numbers in 2021, particularly cattle numbers, most likely as a result of drought conditions over 2018-2021.

ABS data	2001	2016	2021
Sheep numbers	696,806	360,705	396,004
Cattle numbers	168,622	180,673	122,546
Estimated DSE's	2,113,231	1,878,354	1,425,390

Note, DSE's are converted for simplicity at sheep=1, goats=1, cattle=8.4.

In the 2023 survey, participants were asked a question in relation to enterprise change:

"Do you intend to change your enterprise mix in response to recent commodity price changes?"

**Table 6 Change in enterprise mix due to commodity price changes**

Count	Yes/No	Meat Sheep	Wool Sheep	Cattle	Goats	Crop
Yes	14					
No	30					
More		4	2	8	4	7
Less		2	2	4	4	1

Around 30% of respondents said they would change enterprise mix. The overall change appears to be an increase in cattle and an increase in cropping.

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In the 2023 survey, participants were asked a question in relation to climate variability affecting decisions around enterprise mix:

“Do you intend to change your enterprise mix in response increased climate variability?”

Count	Yes/No
Yes	23
No	22

Around 50% of respondents said they would change enterprise mix in response to increased climate variability. Some of the comments are shown below.

#	Enterprise Change due to climate variability
1	More goats when its dry to handle tough conditions. Although goats aren't viable at the moment due to processing limitations
2	Developing crop area for fodder production and storage Goats that cope with drier years
3	Less cattle. Feeding supplement program because of drought conditions
4	We have a larger disposable herd
5	Being more conservative with the feed we do have
6	Only running one breeding enterprise, trade the rest
7	Less cattle yet maintaining goat numbers.
8	Unreliable rainfall - focus on best use of water through ecological sustainability of pastures, soils and water supplies. Then mix of enterprise to hedge fall of markets.
9	Rotation grazing. Increased internal fencing into 200ha paddocks
10	Only one breeding enterprise, balance trade.
11	Will reduce cattle numbers first if it stays dry
12	Building fodder storage and handling systems to utilise in dry periods
13	We will transition to a mix of cattle and goats, as goats are more hardy & feed on different fodder to cattle. This will allow us to run a similar cattle herd with the diversity of a mixed animal income stream & allow us to market animals in line with shifts in livestock commodity markets.
14	Sold most cattle drought 2019, after significant rain there was significant price rise in all livestock so we cropped from then to now with the intent of going back into livestock.
15	Sold all sheep by 2021. Now concentrating on meat goats and beef cattle. Drought in 2019 was the catalyst for reducing stock numbers, resulting in a complete sell of sheep 2019 to 2021.
16	Focussed on more wethers to provide flexibility & lower variability of income
17	Reduction of numbers to suit seasonal conditions
18	Ongoing dry conditions have meant a reduction in flock numbers as not financially sustainable to feed them - due in part to high fodder prices and low market prices
19	Reducing stocking pressure by controlling goat numbers Reduction in the buildup of pig numbers after big seasons
20	More farming to take advantage of big wet years Climate variability and commodity prices making sheep barely profitable Will increase cattle numbers slightly instead of running sheep

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## 8.0 Change in Gross Margin

Below is the gross margin analysis used in the cost benefit calculations.

**Table 7 Gross margin calculations (with and without dogs)**

Gross Margin analysis	Notes	Wool Sheep		Meat Sheep		Goats		Cattle	
		With Dogs	Without Dogs	With Dogs	Without Dogs	With Dogs	Without Dogs	With Dogs	Without Dogs
Gross Income	1	493,444	537,069	252,255	394,969	162,812	217,396	273,420	309,746
Total Expenses	1	241,153	244,294	83,704	90,839	34,281	37,010	31,273	33,089
Gross Margin	1	252,291	292,775	168,552	304,129	128,531	180,386	242,147	276,657
Head (capacity) (DSE/AE)	1	8,000	8,000	8,000	8,000	8,000	8,000	952	952
Gross Margin per head (DSE/AE)	1	32	37	21	38	16	23	254	290
Gross Margin per ha	1	36	42	24	43	18	26	35	40
Gross Income Per Head (DSE/AE)	1	61	67	32	49	20	27	287	325
Annual lost gross margin (\$)	1		40,484		135,578		51,854		34,510
Annual lost gross revenue (\$)	1		43,625		142,713		54,584		36,326
Reproductive Rates	2	85%	100%	86%	125%	93%	122%	80%	91%
Average death rates	2	4.0%	1.0%	8.0%	1.0%	2.0%	1.0%	1.4%	1.4%
Wool Price (\$/kg greasy)	3	\$ 9.46	\$ 9.46						
Meat Price (\$/kg dressed)									
Mutton	4	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00				
Lamb	4			\$ 6.00	\$ 6.00				
Goat	4					\$ 2.70	\$ 2.70		
Cattle	4							\$ 6.00	\$ 6.00

Notes:

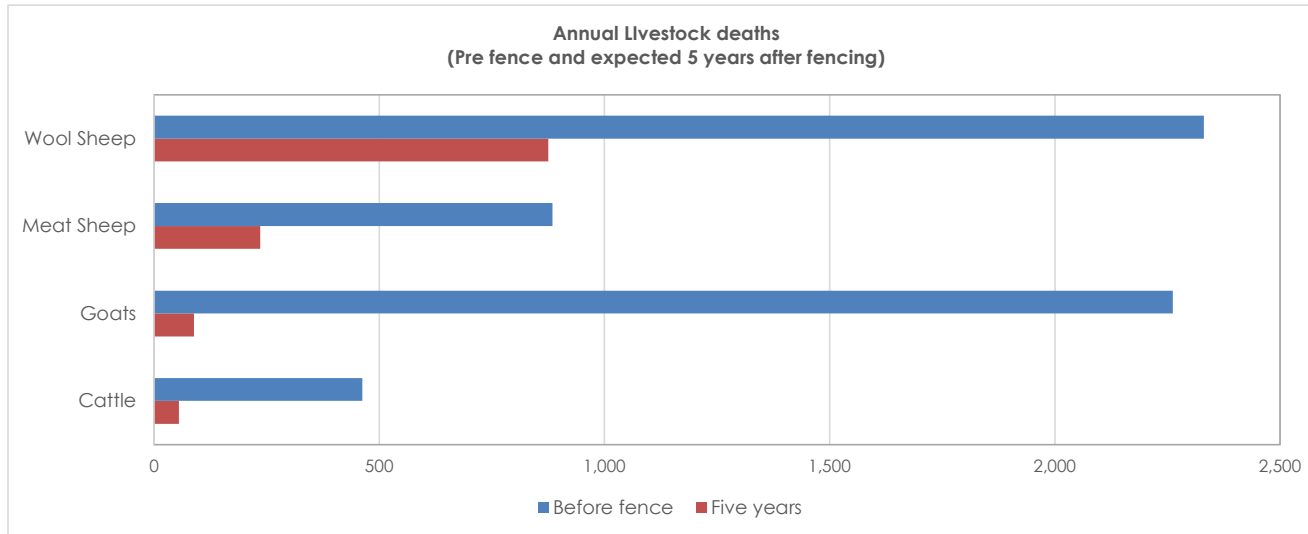
1. Gross Margin calculations
2. Participant survey December 2023
3. <https://www.wool.com/market-intelligence/weekly-price-reports/20232024/week-23-december-2023/> for 19mu wool, 1,456c/kg clean at 65% yield.
4. Meat price source data is as follows.
  - a. Average mutton price for 2023 was \$2.72/kg dressed weight, rounded to \$3.00/kg as a longer term indicator. (MLA, 2023)
  - b. Average trade lamb price for 2023 was \$5.73/kg dressed weight, rounded to \$3.00/kg as a longer term indicator. (MLA, 2023)
  - c. Average EYCI price for 2023 was \$5.48/kg dressed weight, rounded to \$6.00/kg as a longer term indicator. (MLA, 2023)
  - d. Average Goat price for 2023 was \$2.66/kg dressed weight, rounded to \$2.70/kg as a longer term indicator. (MLA, 2023)



## 9.0 Dog impacts on livestock

Based on the 2023 exclusion fence survey, annual livestock deaths pre-fencing were costing approximately \$1,560,000 per year. Survey respondents expect livestock deaths due to dog impacts to decrease by approximately 80% within 5 years.

**Figure 1** Annual livestock deaths pre and post fencing

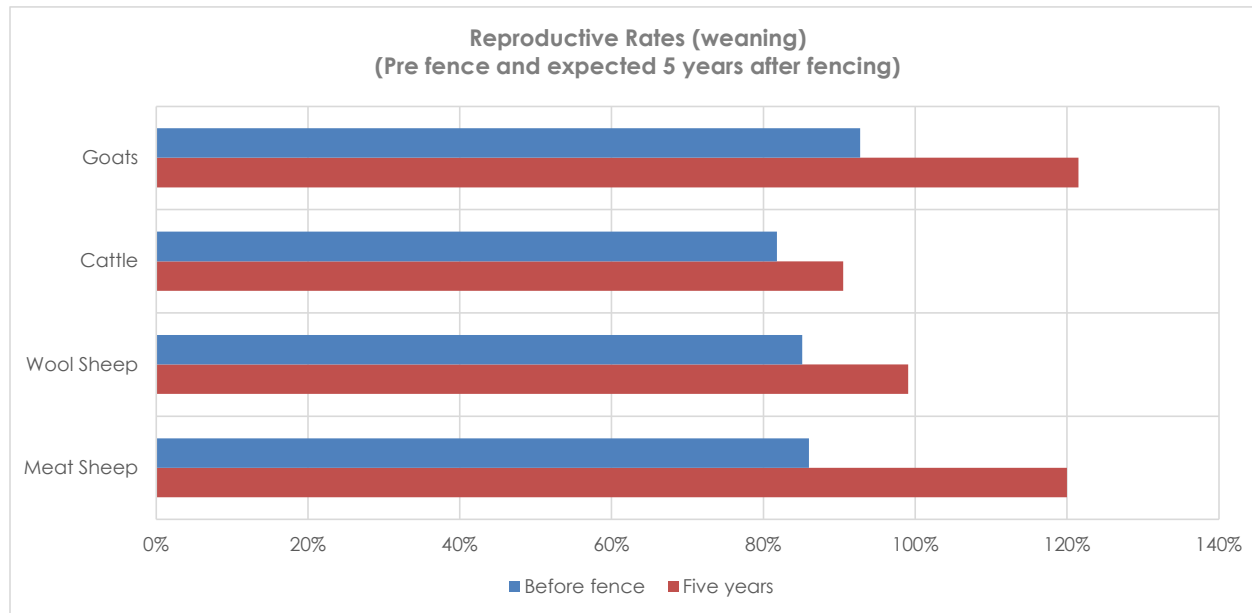


Dogs and pigs were the main nominated predators in the survey responses. 75% of respondents nominated dogs as the problem with livestock deaths and 20% nominated pigs, the balance was undecided.

It was estimated that there were approximately 97 dogs still inside the exclusion fences and that 627 dogs had been destroyed since the commencement of the fencing program.

Reproductive rates (weaning) are expected to increase once the exclusion fencing is complete. The biggest change is in goats and meat sheep. This increase in reproductive rates makes a significant contribution to increased gross margins, once the fencing is complete.

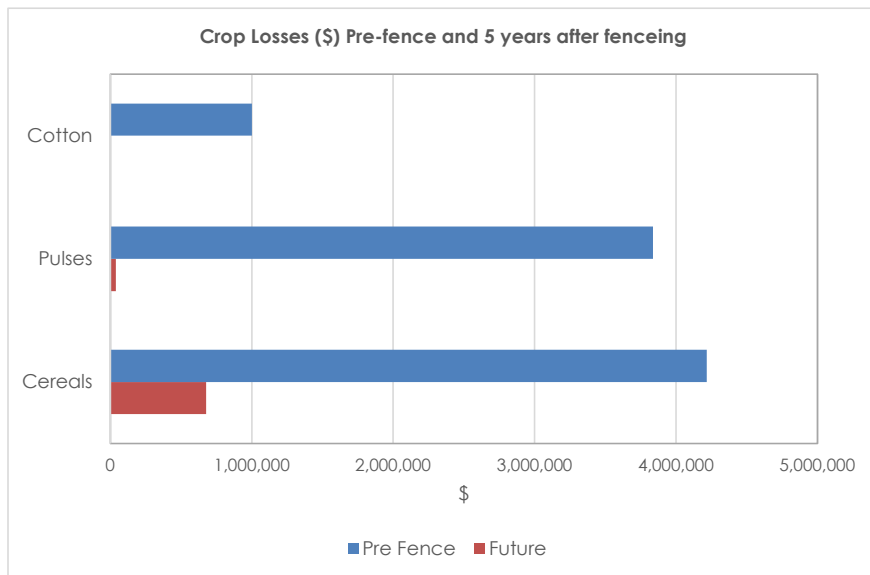
**Figure 2** Reproductive rates pre and 5 years post fencing



## 10.0 Pest animal impacts on crops

The survey of exclusion fence participants asked a question about crop losses (in tonnes) due to pest animals. The result was an estimated 14,000 tonnes of lost cereal crops and 6,000 tonnes of lost pulse crops and 2,000 bales of cotton. Losses due to pest animals are expected to decline to a negligible amount within 5 years. The annual cost of lost crop income is estimated at \$8,300,000.

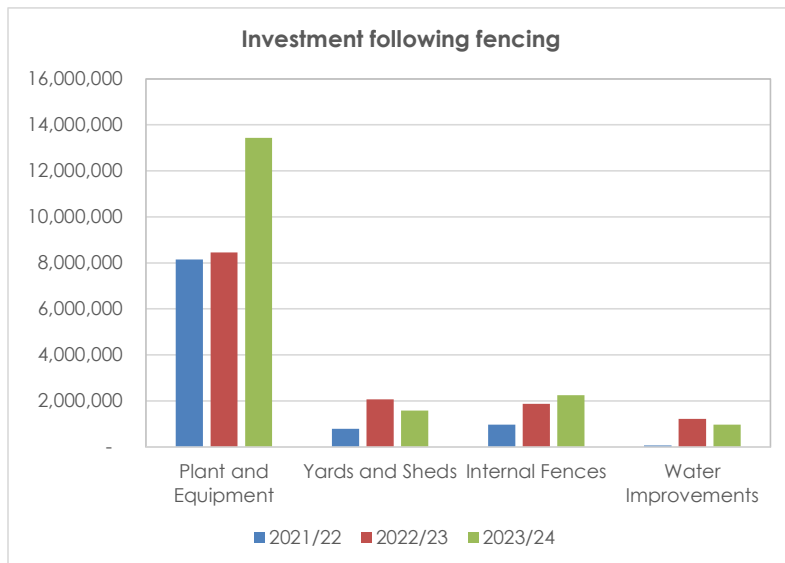
**Figure 3** Pest animal impacts on crops



## 11.0 Investment in capital expenditure post exclusion fencing

Exclusion fence survey participants were asked if they had, or intended to, invest in capital expenditure **because** they had completed the exclusion fence. It could have been replacing an old shearing shed, fixing up internal fences, buying plant and equipment because they are now going to increase the area of crop. The total value of investment over a 3 year period is approximately \$42,000,000.

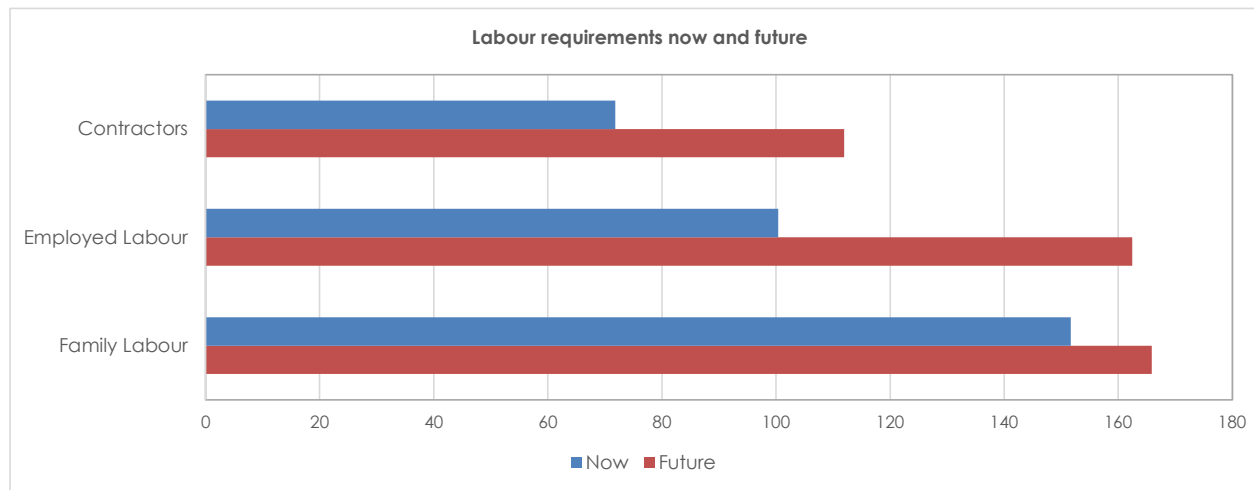
**Figure 4 Investment following fencing**



## 12.0 Estimated labour impacts of exclusion fencing

Employed labour on the exclusion fence properties is expected to increase by 62 FTE, while family labour is expected to increase by 14 FTE and contractors are expected to increase by approximately 40 FTE. This represents a total increase of employment in the region of 116 FTE.

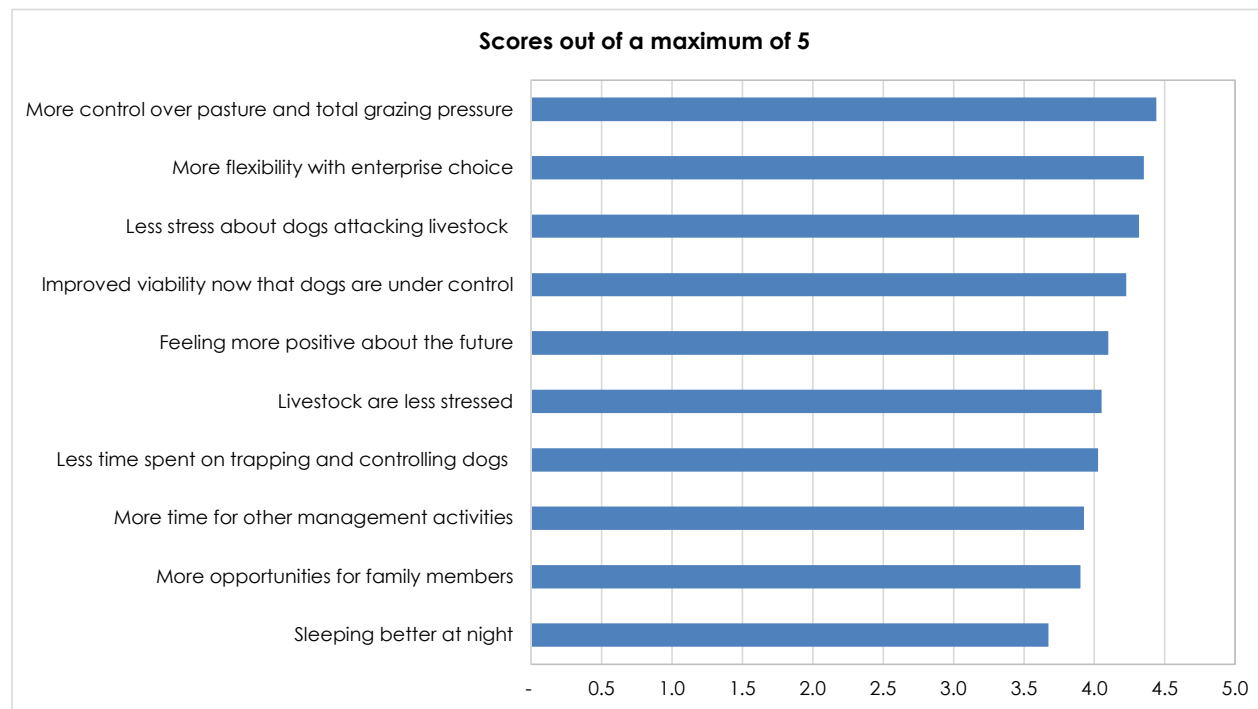
**Figure 5** Labour requirements now and in the future



## 13.0 Responses from Surveys

The MERI program logic spans a time period of 10 years in terms of the aspirational goals of the project. Therefore many of the longer term impacts of the project will not be visible within this reporting period. As part of this MERI process, applicants were asked a number of questions about their expectations of change relating more to the Level 3 or 5 year outcomes. A summary is included below.

**Table 8 Attitudinal survey results 2024**



- Sample size is 44 out of 87 properties (50.5%)
- All responses are over 3.68 out of 5.
- Top responses are about having control over pastures and reduced stress about dogs attacking livestock.
- Greater flexibility in relation to enterprise choice.
- Less stress about dogs attacking livestock.
- Improved viability now dogs are under control.

- More positive about the future of their business
- Less tangible things had lower scores, however still over 3.4 out of 5.

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Do you notice (or expect to in the future) any changes in pasture composition, pasture seeding, etc due to improved control of total grazing pressure?

**Table 9**      **Expectations related to change in pasture**

#	Pasture Change
1	A spate of good seasons allowed for excellent pasture growth. In the scrub country there is less feral pig activity due to the exclusion fence preventing new incursions from the stockroute and neighbouring properties. Unfortunately, I was unsuccessful in applying for a grant to complete an exclusion fence on my fourth boundary, along the western, river end. Feral dog and pig incursions have continued from this direction. Luckily the dog incursion remained only in the river country and did not spread to the scrub country. We had several losses of weaner buck goats as a result. A combination of pig strength baits and shooting reduced pig numbers and either killed or drove the feral dogs out. Given the heavy timber and thick grass cover, no dog carcasses were found. Dog tracks disappeared, as did the number of bitten/dead goats found.
2	Ability to rest pastures now better control of grazing pressure
3	All depends rain.
4	Cleared more land for pasture
5	CONTROL OF WOODY WEEDS WITH GOATS SINCE FENCE UP BUT PASTURE DECREASE DUE TO DRY WEATHER
6	Greater body of feed available
7	Has not rained since fence went up
8	Have just gone from flood in 2021-22 to drought 2023. Too short a time frame and seasonal affected to gauge
9	Huge improvement with increase in pasture growth due to decrease in feral animals
10	i think it has improved our grazing a hell of a lot
11	Kangaroo numbers remain high inside fence. Mitigation needs to occur
12	Less kangaroos and therefore more grass
13	Less pressure from kangaroos
14	No improvement yet. Kangaroo numbers are in large numbers, it will take many years to improve grazing pressure
15	No Roos eating the grass
16	Not as of yet, fence only constructed in september. now it is a drought
17	Not Yet

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### Pasture change continued

#	Pasture Change
18	Not yet, there has been no pasture growth since the completion of the fencing project. Next time it rains I do expect to see significant improvement in pasture growth thou
19	Not yet. still have a Kangaroo issue.
20	Only that we can put small animals where we wouldnâ€™t before
21	Our fencing is not complete yet, but with a significant amount of fencing in the surrounding area around us ,and the current dry period being equivalent to 2018/19, we are carrying an extra 100 steers and have significantly less pressure from marsupjals.
22	Pasture recovered well after rain
23	This is extremely noticeable, reaping fantastic results, allows for better stock rotation, pastures are given a chance to be spelled, which helps with pasture reproduction, a lift in fodder density, improved pasture health, density and quality.
24	to date have not noticed any changes mainly due to poor season
25	Too early to tell as fence only completed September 2023. Ongoing dry conditions also impacting.
26	Yea. Better grass and medic establishment
27	Yes - massive yes
28	Yes Roos and pigs were terrible, and we now have them at a good manageable rate. Grass consumption is way more.
29	Yes - with the combination of good season - we have seen plant seeding on many different variety's
30	Yes noticed a difference Able to control goats and pigs through last 2 good years and improved ground cover due to more control of total stocking pressure
31	Yes pasture lasts longer with controlled mgt of the rate of consumption
32	Yes, but a strong two wet seasons are the main reason
33	Yes, dramatically
34	Yes. Native animal numbers are lower.
35	yet to be seen due to lack of rain



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Do you have any other general comments about impacts of the fence on your business, family or personal?

**Table 10** General comments about exclusion fencing

**General comments continued**

#	Other general comments
1	Adverse seasons are the biggest negative on the business, along with vastly reduced livestock prices. All input costs have gone up and farm income has gone down. This is preventing the ability to finance further improvements. While the exclusion fence has certainly helped with dog predation, the inability to fully enclose the freehold portion of the property still leaves the goats susceptible to feral pigs and the occasional feral dog incursion as already mentioned.
2	As stated above fencing is not complete but will certainly be of benefit once it is
3	Bringing wild dogs under control has allowed for more focus on others of the business such as grazing management & improving genetics of the sheep flock
4	Councils decision to reduce funding for trapping has not proven wise. Good seasons have seen a huge increase in dogs in unfenced areas
5	Fence has been an enormous benefit to our business, from relief in grazing pressures and property security. Also added benefit of extra carrying capacity with livestock or protection of cropping.
6	For the first time we have been able to actively manage the Macropod population, this has resulted in the huge increases in winter cereal production
7	I am all cropping so most of these questions are not applicable to me but going forward in a normal season I can see great benefit in keeping feral pigs off my crops.
8	I would like to see the program be made available to more properties within the Balonne Shire, as the benefits of the exclusion fence have been incredible, both in terms of pasture management, and also the productivity of livestock and grazing enterprises.
9	It's too early to answer these questions for us because we still have too many Roos and dogs inside the fence. In 12 months time hopefully we will have both under control and will see a big difference particularly when it rains.
10	No
11	Now have the ability to diversify into some goats or meat sheep if situation required. Cattle on property at present are dry cattle. Being able to reduce and destroy pigs on property will reduce bio security risks
12	Overall the fence has let us run a more profitable operation and less stress.
13	The fence has stopped dogs attacking calves and Roos eating grass out.
14	The only issue regarding the fence is getting control of the of the vermin inside the fence.
15	This program is only in its infancy for us, but going forward we can see a great positive impact of having the exclusion fence erected around Balagna

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### General comments continued

#	Other general comments
16	Very glad to have been able to complete fence, after such a long process. Dry conditions currently impacting ability to see full benefit, this will hopefully change soon. We are very hopeful that we will see a reduction in pests and a greater ability to control and reduce predators.
17	We believe that the dog fencing is a tremendous asset to the shire to control the wild dogs.
18	We can now make choices about the most profitable enterprises for our various land types with confidence about being able to control outcomes. Reducing pests (Emu Kangaroo Pigs) from inside fence proving to be a difficult time-consuming task
19	We have had a wild dog/dogs break the integrity of the fence, however whilst I am no wild dog guru, we perhaps have just been a little unlucky. It appears that these or this animal may have learnt this habit elsewhere, is extremely territorial & is extremely cunning. Interestingly the infringement is only between one neighbor & Pebbly. Meaning the animals/animal only travels one direction and does not put any pressure on any of the remaining boundary. Overall i am extremely grateful and thankful the fence is erected, just a little frustrated as until this issue is sorted, we are missing other valuable opportunities the fence can provide.
20	Will have to be vigilant about keepng Kangaroo/Emu numbers under control.
21	Yes it gives us security and peace of mind that our natural grasses are being protected from wild life -and the opportunity to be able to establish a meat breeding sheep enterprise

### 14.0 Bibliography

ABS. (2003). 7120 Agricultural Commodities 2000/01.

ABS(2). (2016). 7120 Agricultural Commodities 2015/16.

IMF. (2023). *Fine Wool Prices*. Retrieved from <https://www.imf.org/en/Research/commodity-prices>

MLA. (2023). MLA Daily price indicators 2020/21 <https://www.mla.com.au/prices-markets/>.

MLA(2). (2023). Australia Slaughter Goats Fiscal Year.

MLA(3). (2023). OTH cattle indicators QLD 2021.

MLA(4). (2023). Eastern States OTH goat prices.

**Attachment 1**  
**Program Logic**

Logic Hierarchy Level	Project Outcomes	Link to State Outcomes	Targets	Measurements
<p><b>LEVEL 4.</b> <b>Aspirational goals</b> (10 years' time)</p>	<p>That the BSC Exclusion Fencing program funding is building upon existing private fencing and combined will be a catalyst for growing jobs and achieving significant improvement in the profitability of regional businesses (both rural and non-rural) through the demonstration of the economic, social and environmental benefit of exclusion fencing.</p>	<p>The economic, social and environmental risks associated with priority weeds and pests are managed.</p>	<p>75% of the rural properties within the BSC area are fenced with pest exclusion fencing.</p> <p>An increase in the regional domestic product. (Regional GDP).</p> <p>800,000 small animal ruminants in the BSC region.</p> <p>Local Government expenditure on Dog control has reduced by \$100,000 per year.</p> <p>Wild dog count in the BSC region has decreased by 70%.</p> <p>Landholders within the exclusion fence areas feel more in control of their small animal enterprises.</p>	<p>Hectares and kilometers fenced in BSC region</p> <p>MAP showing area fenced with exclusion fencing</p> <p>Accumulated capital cost of fencing</p> <p>Livestock numbers within the fenced area</p> <p>Livestock numbers outside fenced area</p> <p>Labour spend based on Standard Labour costs per animal</p> <p>Reproduction rates within the fenced area</p> <p>Regional GDP</p> <p>Cost benefit ratio of CAPEX to economic benefit</p> <p>Cost of Dog control by Regional Councils and Landowners</p> <p>Population changes</p> <p>Count of wild dogs</p> <p>Landholder attitudinal survey</p>

Logic Hierarchy Level	Project Outcomes	Link to State Outcomes	Targets	Measurements
<p><b>LEVEL 3.</b> <b>Long-term outcomes</b> (5 years' time)</p>	<p>That the BSC exclusion fencing project has been successful in demonstrating the economic, social and environmental benefits of cluster fencing.</p>	<p>The preparedness and resilience of communities (including community organisations, Indigenous groups, industry, Landcare, landholders, land and water managers, local government and volunteers) is improved.</p> <p>Priority landscapes have improved resilience to weed and pest impacts.</p>	<p>The BSC exclusion fencing has become a catalyst for other fencing in the region. The area fenced is now greater than 3 times the initial BSC exclusion fencing area.</p> <p>50% of the rural properties within BSC region are fenced with pest exclusion fencing.</p> <p>600,000 small animal ruminants in the BSC region.</p> <p>Wild dog count in the BSC region has decreased by 50%.</p> <p>Landholders within the exclusion fence areas feel more in control of their small animal enterprises.</p>	<p>Hectares and kilometers fenced in BSC region</p> <p>MAP showing area fenced with exclusion fencing</p> <p>Accumulated capital cost of fencing</p> <p>Livestock numbers within the fenced area</p> <p>Livestock numbers outside fenced area</p> <p>Labour spend based on Standard Labour costs per animal</p> <p>Reproduction rates within the fenced area</p> <p>Regional GDP</p> <p>Cost benefit ratio of CAPEX to economic benefit</p> <p>Cost of Dog control by Regional Councils and Landowners</p> <p>Population changes</p> <p>Count of wild dogs</p> <p>Landholder attitudinal survey</p>

Logic Hierarchy Level	Project Outcomes	Link to State Outcomes	Targets	Measurements
<b>LEVEL 2.</b> <b>Immediate outcomes</b> (i.e. within 12 months)	Fence erection and a positive change to clusters' profitability and environmental management due to exclusion fencing and the reduction of wild dogs through the: <ul style="list-style-type: none"> <li>• Development of pest management plans;</li> <li>• Training of landholders in monitoring;</li> <li>• Significant proportion of exclusion is fencing constructed;</li> <li>• Implementation of pest management activities</li> <li>• Current snapshot of the impact of wild dogs on exclusion fenced properties economic and environmental wellbeing.</li> </ul>	Activities undertaken towards preventing and/or managing populations of emerging weeds and pests.  Communities (including community organisations, Indigenous groups, industry, Landcare, landholders, land and water managers, local government and volunteers) have the skills, knowledge and capacity to participate and engage in natural resource management.  Activities undertaken to protect priority ecosystems or agricultural undertakings from further damage from weeds and pests.  Targeted weeds and pests are controlled as appropriate.	The area of the BSC exclusion fencing is now complete.  Wild dog numbers have been reduced.  Landholders within the exclusion fence areas feel more in control of their sheep enterprises.	Hectares and Kilometers fenced  MAP showing area fenced with BSC  Accumulated capital cost of fencing  Livestock numbers within the fenced area  Livestock numbers outside fenced area  Labour spend based on Standard Labour costs per animal  Reproduction rates within the fenced area  Cost benefit ratio of CAPEX to economic benefit based on forecast economic benefits  Count of wild dogs  Landholder attitudinal survey

Logic Hierarchy Level	Project Outcomes	Link to State Outcomes	Targets	Measurements
<b>LEVEL 1. Foundations</b>	<p>Current snapshot of the impact of wild dogs on clusters' economic and environmental wellbeing through:</p> <ul style="list-style-type: none"> <li>• Development of legal and governance arrangements with clusters; and</li> <li>• Validation of current pest, economic and environmental data.</li> </ul>	<p>Activities are undertaken towards preventing and/or managing populations of emerging weeds and pests.</p> <p>Partnerships with key stakeholders (e.g. Landcare, industry) are established and/or maintained, and engagement activities are undertaken</p> <p>Activities are undertaken to protect priority ecosystems or agricultural undertakings from further damage from weeds and pests.</p> <p>Activities are undertaken with key stakeholders to develop knowledge of priority NRM issues (e.g. mapping, monitoring studies, case studies, etc.)</p>		<p>Planned hectares and kilometers fenced</p> <p>MAP showing planned area to be fenced</p> <p>Planned accumulated capital cost of fencing</p> <p>Current livestock numbers within the fenced area</p> <p>Reproduction rates within the fenced area</p> <p>Annual cost of wild dogs to enterprises within the fenced area</p> <p>Planned cost benefit ratio of CAPEX to economic benefit based on forecast economic benefits</p> <p>Current count of wild dogs on properties to be fenced</p> <p>Landholder baseline attitudinal survey</p>



**Attachment 2**  
**Benefit Cost Calculations**

**Cost Benefit Analysis**

**Review 2, 2023**

	<b>Before</b>	<b>After</b>	<b>Change</b>
Wool Sheep Numbers	71,354	99,737	28,383 BSC Participant survey
Wool Sheep Variable Labour required	1,427,070	1,994,732	567,662 BSC Gross Margin Calculations
Variable FTE Sheep	22	31	9 Variable FTE calculated at \$40/hour
Cattle Numbers	39,307	54,968	15,662 BSC Participant survey
Cattle variable Labour required	3,537,597	4,947,140	1,409,543 BSC Gross Margin Calculations
Variable FTE Cattle	55.27	77.30	22 Variable FTE calculated at \$40/hour
Meat Sheep Numbers	13,117	40,528	27,411 BSC Participant survey
Meat Sheep variable labour required	170,525	526,863	356,338 5,000 dse per man
Variable FTE Meat Sheep	2.66	8.23	5.57 Variable FTE calculated at \$40/hour
Goat Numbers	52,901	116,020	63,119 BSC Participant survey
Goat variable Labour Required	687,715	1,508,262	820,547 5,000 dse per man
Variable FTE Goats	10.75	23.57	12.82 Variable FTE calculated at \$40/hour
Increase in expenditure on labour	5,822,907	8,976,997	3,154,090 Calculation
Net Increase in Jobs	90.98	140.27	49.28 Calculation
Survey Data Increase in jobs	292.00	397.00	105.00
Wool Sheep GM	30.00	35.00	5.00 BSC Participant survey
Increased Sheep Gross Margin	2,140,606	3,490,782	1,350,176 Calculation
Cattle GM	254	290	36.00 BSC Participant survey
Reduced Cattle Gross Margin	9,983,885	15,940,784	5,956,900 Calculation
Meat Sheep GM	21	38	17.00 BSC Participant survey
Increased Meat Sheep Gross Margin	275,463	1,540,060	1,264,597 Calculation
Goat Gross Margin	16.00	23.00	7 BSC Participant survey
Change in Goat Gross Margin	846,418	2,668,463	1,822,046 Calculation
Improvement in Grain Gross Margin		8,337,406	8,337,406
Increased Regional Gross Margin	13,246,371	31,977,496	18,731,124 Calculation

**Cost Benefit Analysis**  
**Review 2, 2023**

	<b>Before</b>	<b>After</b>	<b>Change</b>
Number properties	87	87	BSC
Total DSE	457,968	682,437	49.01% Calculation
Increase in Labour per property	1.05	1.61	54.17% Calculation
Sheep per property	820	1,146	326 Calculation
Cattle per property	452	632	180 Calculation
Goats per property	608	1,334	726 Calculation
DSE per property	5,223	7,787	2,564 Calculation
Total area fenced	695,554	695,554	Calculation
Ha per property	7,995	7,995	0 Calculation
KM fenced	1,692	1,692	Calculation
GM/Property	152,257	367,557	215,300 Calculation
Gross income sheep	3,924,444	7,978,930	4,054,486 Calculation
Gross income per head wool sheep # on hand	55	80	BSC Gross Margin Calculations
Gross income cattle	16,705,319	26,934,429	10,229,110 Calculation
Gross income per head cattle # on hand	425	490	BSC Gross Margin Calculations
Gross income meat sheep	603,395	3,525,927	2,922,532 Calculation
Gross income per head meat sheep # on hand	46	87	BSC Gross Margin Calculations
Gross income goats	1,534,132	10,673,854	9,139,722 Calculation
Gross income per head goats # on hand	29	92	BSC Gross Margin Calculations
Increase in cropping income		8,337,406	8,337,406 Calculation
Increase in gross income	22,767,290	57,450,546	34,683,255 Calculation
Add Increased variable labour			9,450,000 Calculation at \$90,000 per FTE
Total Annual Regional Benefit			28,181,124 Calculation
Government Expenditure on Fencing			12,719,093 BSC
Annualised multiplier based on one off expenditure			\$ 2.22 per year every year from \$1 government spend
Proponents Expenditure on Fencing			10,042,817 BSC
Total Cost of Fencing			22,761,910 Calculation
Increased Annual Gross Margin			18,731,124 Calculation
Proponents Return on Capital (Increased Gross Margin/CAPEX)			\$ 1.87 per year increased GM for every \$1 spent on the fence
Proponents Return on Capital if no Government funding			\$ 0.82 Calculation
Cost per KM fenced			13,453 Calculation