

Region/workshop/survey

...../...../.....

## SECTION 1: About you and your property

### 1. What is your position / role on the property?

- <sub>1</sub> Owner-Manager  
<sub>2</sub> (Co-)Owner of company (but not directly involved in management)  
<sub>3</sub> Employed manager  
<sub>4</sub> Family member  
<sub>5</sub> other.....  
<sub>6</sub> other.....

### 2. How long have you been in this role?

- <sub>1</sub> < 5 years  
<sub>2</sub> 6-9 years  
<sub>3</sub> 10-19 years  
<sub>4</sub> 20 years and more

### 3. What is your age group?

- <sub>1</sub> < 30 years  
<sub>2</sub> 30-39 years  
<sub>3</sub> 40-49 years  
<sub>4</sub> 50-59 years  
<sub>5</sub> 60 years and older

### 4. What is your gender?

- <sub>1</sub> male  
<sub>2</sub> female

### 5. How long has the property been in the current ownership or family ownership?

- <sub>1</sub> < 5 years  
<sub>2</sub> 6-9 years  
<sub>3</sub> 10-19 years  
<sub>4</sub> 20-39 years  
<sub>5</sub> 40 years and more

### 6. Which bio-geographic and NRM regions is the property located in?

NRM Region: .....

Bio-geographic: .....

**7. What is the business structure of your property?**

- <sub>1</sub> Family business (company, trust)
- <sub>2</sub> Corporation-owned property
- <sub>3</sub> Co-operatively managed property
- <sub>4</sub> other (please specify).....

**8. What is the area size of the property?**

..... acres *OR* ..... hectares *OR* ..... sq miles *OR* ..... sq kilometres

**9. What proportion of the property is under the following types of tenure?**

- .....% freehold land
- .....% rural / grazing lease (expires in year.....)
- .....% perpetual lease
- .....% other, *please specify*.....
- .....% other, *please specify*.....

**10. How would you describe the most productive land on your property?**

Land / soil / vegetation type(s).....  
 .....  
 .....  
 .....  
 .....  
 Approximate area (or % of property).....  
 Utilisation / productivity: (e.g. ha / LSU) .....  
 Other descriptors (e.g. ecological condition, infrastructure, etc) .....  
 .....  
 .....

**11. How would you describe the least productive land on your property?**

Land / soil / vegetation type (s).....  
 .....  
 .....  
 .....  
 .....  
 Approximate area (or % of property).....  
 Utilisation / productivity: (e.g. ha / LSU) .....  
 Other descriptors (e.g. ecological condition, infrastructure, etc) .....  
 .....  
 .....

12. What is the size of your cattle herd (average last 3 years)? ..... head

13. How would you describe your herd (breed, purpose, breeding, etc)?

.....  
 .....

14. What is your grazing system?

- <sub>1</sub> continuous grazing
- <sub>2</sub> rotational grazing
- <sub>3</sub> cell grazing

Details: .....

.....

15. What are the key markets for your cattle? What was their share during 2011/12?

Most important.....; .....% of cattle sold  
 2<sup>nd</sup> most important.....; .....% of cattle sold  
 3<sup>rd</sup> most important.....; .....% of cattle sold

16. What was the average beef price you received during 2011/12? ..... cents / kg live weight

17. Were you affected by the temporary ban of cattle live export to Indonesia in 2011?

- <sub>0</sub> No
- <sub>1</sub> Yes → Please describe consequences briefly

.....  
 .....

18. Are you currently, or have you been in the past, involved in any **formal** biodiversity conservation activities and/or programs? (e.g. Nature Refuge or similar)

- <sub>0</sub> No
- <sub>1</sub> Yes → Please describe (name or type of program, years, area involved, activities involved)

.....  
 .....

19. Do you make any special efforts (which are not part of a formal program) to look after biodiversity on your property?

- <sub>0</sub> No
- <sub>1</sub> Yes → Please describe briefly what you did / do

.....  
 .....

## SECTION 2: “Biodiversity for profit” scenario

Imagine that a suite of contractual biodiversity conservation options become available, which pastoralists can apply for.

Funding may come from the corporate sector, or government, or non-government organisation, or a combination of sectors, with administration provided by regional natural resource management bodies or similar organisations.

The conservation options seek to provide biodiversity benefits across large areas of the tropical savannas. The objective is to safeguard the quintessence of savanna plant and animal life in the face of pressures including those from grazing, mining, climate change, feral animals and weed invasion.

Participation in these biodiversity conservation options is entirely voluntary.

Participating pastoralists sign a contract and get paid an agreed amount, per hectare and year. Therefore, participation enables pastoralists to diversify land use and earn an income from providing on-farm biodiversity conservation.

Pastoralists need to apply to participate. From the pool of applications, the best applications in terms of biodiversity outcomes and relative cost are chosen. These pastoralists are offered a contract. The contract details the conditions which must be met by the pastoralist and specifies the remuneration received by the pastoral company.

A number of characteristics describe the different hypothetical options, namely the conservation activity, the size of conservation payment – annually on a per hectare basis, contract duration, contract flexibility, and who is doing the monitoring. The characteristics are described in detail.

- Relationship of biodiversity conservation with the cattle enterprise:
  - (a) SHORT-term exclusion of cattle is required, for example during bird nesting season, but for most pastoralists there is no reduction in the amount of beef produced from the land.
  - (b) ProLONGed exclusion of cattle is required every year, for example wet-season exclusion from riparian zones or dry-season exclusion from wetlands, resulting in a reduction of up to 50% of beef production from this land.
  - (c) TOTAL exclusion of cattle from the land, resulting in no beef being produced on this land. Also, land management activities such as weed and feral animal control and fire management need to be undertaken to maximise biodiversity benefits.
- Payment for the provision of biodiversity conservation  
Payment for biodiversity conservation services is calculated on a per hectare basis. Payments are made to the pastoral company annually (with payment split in two equal instalments). Payments are indexed (i.e. adjusted for inflation).

Payment in any given year (except year 1) is contingent on satisfactory completion of contractual conditions during the previous year. Payment levels stipulated are for year 2013 and subsequent payments are adjusted for inflation.

Imagine that participation in the program is determined in a competitive fashion. There could be, for example, a tender process through which the funder seeks expressions of interest from pastoralists for participation in a biodiversity conservation program with conditions as per above.

- Contract duration:

5 years, 10 years, 20 years and 40 years

- Contract flexibility:

(a) **Flexible:** It is possible for the pastoralist to ask for 'suspension' of the program if the property finds itself confronted with 'exceptional circumstances' such as extensive & prolonged flood inundation, devastating wildfires, or other circumstances. Suspension can occur no more than once every five years. Land will be able to be used for cattle grazing as per normal business. No income will be paid to the pastoralists during that year and no penalty will be imposed for exceedance of contract conditions during program suspension.

(b) **Not flexible:** Breach of contract conditions will result in financial penalty.

- Monitoring:

(a) **External:** The administering body or an independent provider visits participating properties every year to monitor compliance with contract conditions and measure biodiversity outcomes.

(b) **Self with random spot-checks:** Monitoring is undertaken by the pastoralist who reports the data to the funder annually. Frequency and type of monitoring activities and reporting are contractually prescribed. Spot checks are conducted of 20% of participating properties annually to verify data provided by pastoralists.

- Eligibility conditions:

(a) Land must be in 'good condition', meaning that the pastoralist is meeting his/her statutory environmental duty of care to the environment.

(b) The area subscribed must be a minimum 400 hectares (≈1000 acres).

- Other considerations:

(a) In their expressions of interest, pastoralists indicate the type of land and size of area they are willing to subscribe to the program under these conditions.

(b) Any infrastructure requirements will be paid for by the funder and installed with assistance of the funder prior to or during the first year of contract.

### SECTION 3: Six choice situations

Block A Choice Situation 1	Option A	Option B	Option C	None
Conservation requirements	<u>Total</u> exclusion of cattle + managing for biodiversity outcomes	Cattle exclusion for <u>prolonged</u> periods; 50% loss of cattle production	Cattle exclusion for <u>short</u> periods of time; zero loss of cattle production	
Annual payment (\$/ha)	\$ 16 / ha	\$ 4 / ha	\$ 1 / ha	
Contract length (years)	10 years	5 years	40 years	
Flexibility of conditions	Flexibility	No flexibility	No flexibility	
Monitoring conducted	External	External	External	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least</u> preferred option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd</u> preferred option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	0%   10   20   30   40   50   60   70   80   90   100%  Level of certainty			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None' , please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	..... Hectares ..... Acres ( <i>Alternatively:</i> ..... % of property area)			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	..... km fencing Number of new watering points .....			

Block A Choice Situation 2	Option A	Option B	Option C	None
Conservation requirements	Cattle exclusion for <u>short</u> periods of time; zero loss of cattle production	Cattle exclusion for <u>prolonged</u> periods; 50% loss of cattle production	Cattle exclusion for <u>short</u> periods of time; zero loss of cattle production	
Annual payment (\$/ha)	\$ 2 / ha	\$ 8 / ha	\$ 4 / ha	
Contract length (years)	20 years	40 years	40 years	
Flexibility of conditions	No flexibility	No flexibility	No flexibility	
Monitoring conducted	Self (25% random spot-checks)	Self (25% random spot-checks)	External	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	0%   10   20   30   40   50   60   70   80   90   100%  Level of certainty			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None' , please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	..... Hectares ..... Acres ( <i>Alternatively:</i> ..... % of property area)			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	..... km fencing Number of new watering points .....			

Block A Choice Situation 3	Option A	Option B	Option C	None
Conservation requirements	Total exclusion of cattle + managing for biodiversity outcomes	Cattle exclusion for prolonged periods; 50% loss of cattle production	Cattle exclusion for short periods of time; zero loss of cattle production	
Annual payment (\$/ha)	\$ 16 / ha	\$ 4 / ha	\$ 2 / ha	
Contract length (years)	20 years	5 years	10 years	
Flexibility of conditions	Flexibility	No flexibility	No flexibility	
Monitoring conducted	External	Self (25% random spot-checks)	Self (25% random spot-checks)	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	<div style="text-align: center;">                     0%   10   20   30   40   50   60   70   80   90   100%                        Level of certainty                 </div>			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None', please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	..... Hectares ..... Acres ( <i>Alternatively:</i> ..... % of property area)			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	..... km fencing Number of new watering points .....			



Block A Choice Situation 4	Option A	Option B	Option C	None
Conservation requirements	Cattle exclusion for <u>prolonged</u> periods; 50% loss of cattle production	<u>Total</u> exclusion of cattle + managing for biodiversity outcomes	Cattle exclusion for <u>prolonged</u> periods; 50% loss of cattle production	
Annual payment (\$/ha)	\$ 2 / ha	\$ 16 / ha	\$ 8 / ha	
Contract length (years)	5 years	20 years	10 years	
Flexibility of conditions	No flexibility	Flexibility	No flexibility	
Monitoring conducted	External	External	External	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	<div style="display: flex; align-items: center;"> <span>0%</span> <span style="margin-left: 20px;">10</span> <span style="margin-left: 20px;">20</span> <span style="margin-left: 20px;">30</span> <span style="margin-left: 20px;">40</span> <span style="margin-left: 20px;">50</span> <span style="margin-left: 20px;">60</span> <span style="margin-left: 20px;">70</span> <span style="margin-left: 20px;">80</span> <span style="margin-left: 20px;">90</span> <span style="margin-left: 20px;">100%</span> </div> <hr style="width: 100%; border: 0.5px solid black; margin: 5px 0;"/> <p style="text-align: center;">Level of certainty</p>			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None' , please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	<p>..... Hectares ..... Acres</p> <p>(Alternatively: ..... % of property area)</p>			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	<p>..... km fencing</p> <p>Number of new watering points .....</p>			

Block A Choice Situation 5	Option A	Option B	Option C	None
Conservation requirements	Cattle exclusion for <u>short</u> periods of time; zero loss of cattle production	Cattle exclusion for <u>prolonged</u> periods; 50% loss of cattle production	<u>Total</u> exclusion of cattle + managing for biodiversity outcomes	
Annual payment (\$/ha)	\$ 1 / ha	\$ 2 / ha	\$ 16 / ha	
Contract length (years)	40 years	20 years	20 years	
Flexibility of conditions	No flexibility	Flexibility	Flexibility	
Monitoring conducted	Self (25% random spot-checks)	External	Self (25% random spot-checks)	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	<p>0%   10   20   30   40   50   60   70   80   90   100%</p>  <p>Level of certainty</p>			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None', please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	<p>..... Hectares ..... Acres</p> <p>(Alternatively: ..... % of property area)</p>			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	<p>..... km fencing</p> <p>Number of new watering points .....</p>			

Block A Choice Situation 6	Option A	Option B	Option C	None
Conservation requirements	Cattle exclusion for <u>short</u> periods of time; zero loss of cattle production	<u>Total</u> exclusion of cattle + managing for biodiversity outcomes	<u>Total</u> exclusion of cattle + managing for biodiversity outcomes	
Annual payment (\$/ha)	\$ 4 / ha	\$ 8 / ha	\$ 32 / ha	
Contract length (years)	40 years	10 years	20 years	
Flexibility of conditions	No flexibility	No flexibility	No flexibility	
Monitoring conducted	External	Self (25% random spot-checks)	External	
Q1: Which option would you choose?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q2: Which is your <u>least preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q3: Which is your <u>2nd preferred</u> option?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4: <u>How certain are you</u> of the choice you made in Q1? Please indicate % certainty on the scale.	<div style="display: flex; justify-content: space-between; width: 100%;"> <span>0%</span> <span>10</span> <span>20</span> <span>30</span> <span>40</span> <span>50</span> <span>60</span> <span>70</span> <span>80</span> <span>90</span> <span>100%</span> </div> <hr style="width: 100%; border: 0.5px solid black;"/> <p style="text-align: center;">Level of certainty</p>			
If you chose <b>A, B or C</b> in Q1, please continue to Q4. If you chose 'None' , please go to next page.				
Q5: <u>How much land</u> would you offer to subscribe to the program? (minimum 400 ha / 1000 acres)	..... Hectares ..... Acres ( <i>Alternatively:</i> ..... % of property area)			
Q6: How did you determine the size of land area?				
Q7: What type of land is this?				
Q8: Indicatively, how much <u>up-front infrastructure investment</u> would be required to implement your proposal?	..... km fencing Number of new watering points .....			

20. Please answer this question if you chose the 'None' option in all six choice situations:

**Which of the following statement(s) do(es) most closely reflect you reason(s) for not choosing any of the conservation contract options?** *(Tick only one or two, please)*

- <sub>1</sub> None of the options provide sufficient monetary incentive.
- <sub>2</sub> The options are unlikely to result in any biodiversity benefits.
- <sub>3</sub> I am not interested in diversifying my business.
- <sub>4</sub> I am not interested in participating in contractual biodiversity conservation.
- <sub>5</sub> There is a risk that what is a voluntary option now may become compulsory in the future.
- <sub>6</sub> I am unsure about the future of my property and cannot commit to any multi-year contract.
- <sub>7</sub> Landholders should protect the biodiversity on their land in the absence of contracts.
- <sub>8</sub> The conservation options are unrealistic.
- <sub>9</sub> I did not understand the choice situations.
- <sub>10</sub> Other *(please specify)*.....

21. When making your choice decisions, how strongly did you consider each of the attributes?

Please rate your on a scale from 1 (never considered) to 5 (always=considered in all choice situations)

Never	Sometimes	Frequently	Mostly	Always
1	2	3	4	5

- 1. Impact of conservation requirement on cattle enterprise
- 2. Remuneration
- 3. Contract duration
- 4. Flexibility
- 5. Monitoring arrangements

*If you applied any decision rules, please explain: (E.g. "I only considered options that had flexibility"):*

.....

.....

.....

22. If the contract options had been about carbon sequestration instead of biodiversity conservation, but otherwise identical, do you think your choices might have been different?

- <sub>0</sub> No
- <sub>1</sub> Yes → Please explain the likely difference and the reason for it.

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## SECTION 4: Risk assessment and risk management

**23. What do you rate as risks associated with participating in a voluntary biodiversity conservation program?**

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.....

**24. When you compare yourself to other pastoralists you know, would you say that you are willing to take more or less risks with respect to the following aspects?**

Please rate your **COMPARATIVE WILLINGNESS TO TAKE RISK** on a scale from **1 to 5**

*"I am willing to take ..... risk than other graziers I know with respect to..."*

Much less	Somewhat less	Neither less nor more	Somewhat more	Much more
1	2	3	4	5

- 6. Introduction of novel animal production/ husbandry practices .....
- 7. Introduction of novel land management practices .....
- 8. Trialling and implementing new enterprises .....
- 9. Property financial management (high risk: e.g. venture capital) .....
- 10. My personal finances (high risk: e.g. high-stake gambling) .....
- 11. My personal health (high risk: e.g. smoking, drinking) .....
- 12. Activities I do (high risk: e.g. helicopter riding, heli-skiing) .....
- 13. In general .....

**25. How strongly do you agree or disagree with the following statements about taking risks?**

Please rate your level of **(DIS) AGREEMENT** on a scale from **1 to 5**.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1	2	3	4	5

- 1. I am willing to take higher financial risks in order to realise higher average returns .....
- 2. It is more important to ensure farm cash flow than to maximise income .....
- 3. Negative gearing is an important element to building wealth .....
- 4. Participation in a contractual biodiversity conservation program reduces farm financial risk .....
- 5. Pastoralists would participate in biodiversity conservation more 'because they care for the animals and plants, and less for the money' .....
- 6. Penalties should apply if people do not comply with the conditions of biodiversity conservation contracts .....
- 7. Sometimes you need to 'bend' contract conditions or a policy to make a living .....
- 8. There is no need for large penalties in biodiversity conservation contracts because pastoralists generally comply with the contract conditions .....
- 9. When selling cattle, I prefer financial certainty to financial uncertainty .....
- 10. With respect to running my business, I prefer certainty to uncertainty .....

**26. How do you rate the following sources of risk in terms of  
(a) likelihood of occurrence and  
(b) consequence for the viability and sustainability of YOUR pastoral property?**

Please rate **LIKELIHOOD** as low, medium or high likelihood of occurrence.

Please rate **CONSEQUENCE** on a scale from 1 to 5. 1=no impact; 2=small impact; 3=moderate impact;  
4=large impact; 5=catastrophic impact

	<u>Likelihood of occurrence</u>			<u>Consequence for YOUR property</u>				
	Low	Medium	High	None	Small	Mod	Severe	Catastr
..... Eg. XYZ.....	L	M	H	1	2	3	4	5
1.... Bankruptcy / foreclosure by lender.....	L	M	H	1	2	3	4	5
2.... Climate change resulting in higher frequency of hot conditions, more severe storms, flooding and inundation, etc.....	L	M	H	1	2	3	4	5
3.... Decline in native biodiversity.....	L	M	H	1	2	3	4	5
4.... Decline in property's land/asset value.....	L	M	H	1	2	3	4	5
5.... Dis-unity among farm decision makers.....	L	M	H	1	2	3	4	5
6.... Family ill-health.....	L	M	H	1	2	3	4	5
7.... Government imposing more environmental laws.....	L	M	H	1	2	3	4	5
8.... High inflation and interest rates.....	L	M	H	1	2	3	4	5
9.... Injury / illness / death of operator.....	L	M	H	1	2	3	4	5
10... Less investment in research and development (resulting in declining rate of productivity growth).....	L	M	H	1	2	3	4	5
11... Loss of standing of the beef industry in the Australian community.....	L	M	H	1	2	3	4	5
12... Loss of government support (eg. drought assistance, fuel rebate).....	L	M	H	1	2	3	4	5
13... International beef / cattle market instability.....	L	M	H	1	2	3	4	5
14... Lack / loss of strategic cattle industry leadership.....	L	M	H	1	2	3	4	5
15... Land degradation and loss of productive capacity.....	L	M	H	1	2	3	4	5
16... Outbreak of contagious cattle disease (eg. BSE).....	L	M	H	1	2	3	4	5
17... Permanent ban of live cattle export.....	L	M	H	1	2	3	4	5
18... Rapidly declining terms of trade (e.g. due to spike in fuel costs).....	L	M	H	1	2	3	4	5
19... Reduced access to professional advice.....	L	M	H	1	2	3	4	5
20... Severe drought.....	L	M	H	1	2	3	4	5
21... Spiralling farm debt.....	L	M	H	1	2	3	4	5
22... Wildfires, bushfires.....	L	M	H	1	2	3	4	5
23... Other:.....	L	M	H	1	2	3	4	5
24... Other:.....	L	M	H	1	2	3	4	5

**27. How important are the following activities within your current property (risk) management strategy?**

Please rate **IMPORTANCE** on a scale from **1 to 5**. (Importance = extent to which you employ this activity)

Not at all important	Slightly important	Moderately important	Very important	Extremely important
1	2	3	4	5

- 1 ...Apply for government assistance when it is available .....
- 2 ...Attend relevant information sessions and workshops .....
- 3 ...Be member of industry association (eg. AgForce, NTCA) .....
- 4 ...Collaborate with neighbouring properties (e.g. fire, weeds, etc).....
- 5 ...Comply with statutory environmental duty of care .....
- 6 ...Consult financial advisors .....
- 7 ...Consult agribusiness advisors.....
- 8 ...Consult government extension service.....
- 9 ...De-stock the property early in drought.....
- 10 ...Develop and implement business plan.....
- 11 ...Develop and implement succession plan.....
- 12 ...Develop and implement fire management plan.....
- 13 ...Diversify farm enterprises (e.g. tourism, carbon, biodiversity, etc) .....
- 14 ...Diversify product markets (e.g. supply different markets) .....
- 15 ...Diversify beef products (e.g. wagyu beef, organic beef) .....
- 16 ...Engage in forward pricing strategies for cattle.....
- 17 ...Establish and implement property management plan .....
- 18 ...Establish forward contracts for farm inputs.....
- 19 ...Expand operation by buying near-by properties .....
- 20 ...Expand and diversify the operation geographically.....
- 21 ...Focus on (re)building cattle live export.....
- 22 ...Give kids an education outside the cattle industry .....
- 23 ...Have formal property accreditation (e.g. ISO 14001) .....
- 24 ...Implement industry best management practices .....
- 25 ...Improve cattle productivity (e.g. improved genetics, husbandry) .....
- 26 ...Improve land productivity (e.g. removal of trees, improved pastures, etc) .....
- 27 ...Improve level of (formal) education (self and staff) .....
- 28 ...Improve knowledge about farming/grazing through targeted courses (eg. 'grazing land management', 'future profit', etc) .....
- 29 ...Increase stocking rate.....
- 30 ...Intensify production systems (eg cell grazing) .....
- 31 ...Invest in more farm infrastructure (fences, water points, etc).....

Q27 Continued

Not at all important	Slightly important	Moderately important	Very important	Extremely important
1	2	3	4	5

- 32 ...Invest in novel technology (e.g. cattle collars, virtual fencing, remote monitoring, etc).....
- 33 ...Invest in off-farm assets.....
- 34 ...Maximise profitability (net profit).....
- 35 ...Maximise production (cattle numbers) .....
- 36 ...Maximise realstate value of the property .....
- 37 ...Monitor grass cover and conduct grass budgets .....
- 38 ...Organise business in most tax-effective manner .....
- 39 ...Participate in government programs .....
- 40 ...Participate in carbon market and other emerging markets .....
- 41 ...Participate in 'payments for environmental services' programs (eg. for carbon, biodiversity conservation) .....
- ..
- 43 ...Produce high quality beef .....
- 44 ...Reduce farm debt .....
- 45 ...Restructure debt .....
- 46 ...Regularly and strategically spell land .....
- 47 ...Safeguard native biodiversity on the property .....
- 48 ...Seek off-farm employment (self, other family members).....
- 49 ...Take out business/production insurance .....
- 50 ...Take income insurance and other personal insurance.....
- 51 ...Talk to local members of parliament.....
- 52 ...Use farm debt strategically to build assets .....
- 53 ...Vertically integrate enterprises .....
- other (please specify) .....
- ..... other (please specify) .....

**28. In the short to medium-term future, what do you rate as the three most important elements of a risk management strategy for your property? (You can use the numbers above.)**

Most important.....  
 2<sup>nd</sup> most important.....  
 3<sup>rd</sup> most important.....



## SECTION 5: ADDITIONAL SOCIO-ECONOMIC AND ATTITUDINAL DATA

29. How long do you intend to continue to operate the property? .....years

30. What do you plan to do with your property in the future?

- <sub>1</sub> Pass on to children or other relative
- <sub>2</sub> Sell to somebody else
- <sub>3</sub> Sell/hand over to biodiversity conservation estate
- <sub>4</sub> Recruit (another) manager to take over
- <sub>5</sub> Other (*specify*).....
- <sub>6</sub> Unsure

31. How would you describe the 2011/12 net profit of the beef enterprise?

- <sub>1</sub> large profit
- <sub>2</sub> small profit
- <sub>3</sub> broke about even
- <sub>4</sub> small loss
- <sub>5</sub> large loss

32. For family farms: What proportion of total household income do you derive from.....?

- ... beef enterprise .....%
- ... other agricultural enterprises (e.g. horticulture) .....%
- ... other enterprises (e.g. contract grading) .....%
- ... off-farm salaries or wages (e.g. family member working in town) .....%
- ... off-farm investments (eg. properties, shares) .....%
- ... pensions, government support payments, etc .....%
- ... other income streams (e.g. private super, etc) .....%

33. How much debt does your property carry? \$.....

34. What is the debt to asset ratio? ..... % or: equity .....%

35. Are you a member of industry and professional organisations?

- <sub>0</sub> No
  - <sub>1</sub> Yes → Please list: .....
- .....

**36. When you think about being a land owner/manager and pastoralist, how important are the following motivations to you?**

Please rate **IMPORTANCE** on a scale from **1 to 5**.

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
	1	2	3	4	5

- 1. Avoid years with very little or negative income
- 2. Be among the best in the industry
- 3. Build up land, wealth and (family) assets
- 4. Earn a high income
- 5. Enjoy life and work on the property
- 6. Follow headoffice / board / owner directives
- 7. Fulfil cultural obligations by caring for country
- 8. Get satisfaction from living and working on the land
- 9. Have a challenging / diverse / autonomous job
- 10. Improve resource/land condition
- 11. Look after cattle (and other productive animals on the farm)
- 12. Look after the natural assets on the property
- 13. Produce high quality cattle
- 14. Protect the environment
- 15. Put children through school/university
- 16. Maintain a sufficient cash flow
- 17. Maximise cattle production from the land
- 18. Maximise company profit
- 19. Maximise land / property value for time of sale
- 20. Minimise tax payable
- 21. Pass on land in good condition
- 22. Produce beef to help feed the world population
- 23. Raise family on a grazing property
- 24. Retire on the farm
- 25. Ride horses, motorbikes, helicopters
- 26. Run a profitable business
- 27. Safeguard the property's natural assets
- 28. Step in ancestors' footsteps
- 29. Work with animals / nature
- 30. Other (*specify*)
- 31. Other (*specify*)

**37. Among the motivations that you rated as 'extremely important', what are the top three?**

(Again, you can use the numbers.)

Single most important.....

2nd most important.....

3rd most important.....

**38. How strongly to you agree or disagree with the following statements?**Please rate **(DIS) AGREEMENT** on a scale from 1 to 5.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1	2	3	4	5

1. Abundance of certain native animals, e.g. brolgas, is an indicator of the health of the country
2. As a landowner / land manager, I have an obligation to look after the native biodiversity and other natural assets on the property
3. Australia's pastoral industry has an ethical responsibility to contribute to global food production
4. Caring for biodiversity is important to me personally
5. Business conditions for my property will improve within 12 months
6. Business conditions for the pastoral sector will improve within 12 months
7. Cattle grazing is not always compatible with biodiversity conservation
8. Cattle live export will always be an important market
9. Current laws defining duty of care for the land restrict the grazing enterprise
10. Current National Parks are sufficient to safeguard biodiversity of the savannas
11. Every pastoralist has a moral responsibility to look after the biodiversity and other natural assets on his/her land. This includes corporate-owned stations.
12. External decision makers (e.g. bank, corporation headquarters) are in control of this property and dictate what happens.
13. Feral animals and plants pose a greater threat to native biodiversity than grazing
14. Future viability of many pastoral properties requires diversification into other land uses such as biodiversity conservation, carbon, and tourism
15. Government does not provide a consistent policy and regulatory environment
16. Grazing plays a minor role in biodiversity decline compared to other pressures
17. I have noticed a decline of native animals and plants on my property
18. I intend to do more to protect native animals and plants on my property
19. I know the names of all the native animals and plants on my property
20. I take pleasure from seeing native biodiversity around
21. I accept that cattle grazing contributes to biodiversity decline
22. It is relatively easy to safeguard native biodiversity on my property
23. Leasehold land will be converted to freehold in the near future
24. Other pastoralists tend to think that protecting biodiversity is important
25. People who are important to me think that protecting biodiversity is important
26. Protecting endangered species on my property is easy
27. Statutory duty of care to the land is sufficient to conserve biodiversity
28. The beef industry will come under intense cost pressure in the near future, particularly from fuel / transport
29. The pastoral industry has a bright future
30. There is no discernible difference between leasehold and freehold land in terms of how land is managed

#### 40. How effective would the following measures be in helping you to undertake (more) conservation activities on your operation?

Please rate EFFECTIVENESS on a scale from 1 to 5

Not at all effective	Slightly effective	Moderately effective	Very effective	Extremely effective
1	2	3	4	5

1. Community involvement (volunteers, schools) in on-ground works
2. Courses in grazing systems / grazing land management
3. Debt-for-conservation swaps, i.e. a three-way contract between a funder, the property and the bank, whereby a certain amount of debt is removed in return for specified biodiversity conservation services
4. Environmental management plans/systems
5. Financial incentives schemes (payments for ecosystem services) such as the ones explored in this research
6. Government investment in safeguarding / expanding overseas cattle markets
7. Income tax incentives
8. Increased peer recognition of grazier achievements (eg. awards)
9. Increased public acknowledgement of environmental achievements by graziers (eg. press, television...)
10. Industry organisations (e.g. AgForce, NTCA, etc) promoting the benefits of farm enterprise diversification
11. More extension and consulting services offered on-farm
12. More research into animals & grazing systems
13. Property management planning
14. Voluntary (industry & regional) grazing code of practice
15. Other (*specify*)
16. Other (*specify*)

#### 41. What education and training have you completed?

- <sub>1</sub> High school
- <sub>2</sub> Tertiary education relevant to agriculture
- <sub>3</sub> Other tertiary education
- <sub>4</sub> Training and Cert course(s) relevant to agriculture
- <sub>5</sub> Other training and Cert course(s)
- <sub>6</sub> Grazing land management course
- <sub>7</sub> DPI / MLA or similar course(s)
- <sub>8</sub> other of relevance to agriculture: (*specify*).....
- <sub>9</sub> other of relevance to biodiversity: (*specify*).....

**42. How important are the following sources of information to you when making decisions about the property?**

Please rate **IMPORTANCE** on a scale from **1 to 5**.

Not at all important	Slightly important	Moderately important	Very important	Extremely important
1	2	3	4	5

- 1. Official letters received by mail .....
- 2. Industry newsletters (print / online) .....
- 3. Digital communications (emails, blogs, facebook) .....
- 4. Internet resources (market updates, policy updates, etc) .....
- 5. Daily newspapers (print, online) .....
- 6. Television and radio programs .....
- 7. Friends / family .....
- 8. Government extension officers .....
- 9. Agribusiness advisors, consultants, financial advisers .....
- 10. Text books and course notes .....
- 11. Resources available at regional offices of DPI, NRM, etc .....
- 12. Industry meetings and workshops convened in the region .....
- 13. Other (*specify*) .....

*Thank you very much for your time and collaboration! 😊*

We would very much appreciate any additional comments you wish to offer in relation to this research or on-farm biodiversity conservation. E.g. did you find the research relevant? Did you think the gratuity was appropriate? Was the workshop situation suitable? *If there is insufficient space, please continue overleaf:*

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