



Australian Government

**Department of Agriculture,
Fisheries and Forestry**

**Department of Agriculture,
Fisheries and Forestry
Submission: Inquiry into the
Export Control Amendment
(Ending Live Sheep Exports by
Sea) Bill 2024**

June 2024

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Introduction

The Department of Agriculture, Fisheries and Forestry (the department) welcomes this opportunity to provide a submission to the House Standing Committee on Agriculture's inquiry into the Export Control Amendment (Ending Live Sheep Exports by Sea) Bill 2024 (the Bill).

The *Export Control Act 2020* (the Act) sets out the overarching legislative framework for the regulation of the export of goods, including food, agricultural products and live animals, from Australian territory. The department is the independent government regulator of live animal exports under the Act and the *Export Control (Animals) Rules 2021* (the Rules).

The Bill would amend the Act to prohibit the export of live sheep by sea from Australia and to provide authority for Commonwealth spending on transition support activities.

This submission addresses the proposed amendments made by the Bill to the Act and the context for the action being taken. It also summarises the government's transition plan for managing the implementation of the policy to end live sheep exports by sea, of which the Bill is a critical component.

The Bill implements recommendations of an independent panel (the panel), appointed by the Minister for Agriculture, Fisheries and Forestry, Senator the Hon Murray Watt (the Minister), to provide advice to the Australian Government (the government) on how and when the phase out could occur. The panel undertook extensive public consultations, including engagement with more than 2,000 people in person and considering over 4,100 submissions and survey responses. The Bill would provide to prohibit the export of live sheep by sea from Australia from 1 May 2028.

The government is providing a \$107 million transition support package announced in the 2024-25 Budget to assist sheep producers and the sheep supply chain, particularly in Western Australia (WA) to plan for, adapt or respond to the trade ending in 2028. The Bill would provide spending authority to enable the roll-out of this funding from the beginning of the 2024-25 financial year.

There is regulatory stability during the phase out. The Bill does not change existing regulatory requirements for the export of live sheep by sea before 1 May 2028. Accordingly regulatory requirements for live sheep exports remain in place, and trade may continue without caps or quotas. This provides certainty and time for those impacted to make decisions appropriate to their individual circumstances.

The Bill

At a practical level, to end exports of live sheep by sea from 1 May 2028 requires that the policy is implemented in Australian law.

The government decided to implement the end date through primary legislation. Primary legislation would implement the date from which live sheep exports by sea will end with appropriate authority from the Parliament. This is the most robust approach and provides accountability and transparency by enabling Parliamentary debate and provides the opportunity for referral to and scrutiny by Parliamentary committees if considered appropriate by the Parliament. Primary legislation would also provide the greatest level of certainty.

The Bill would amend the Act to:

- set the date for the phase out: it would prohibit absolutely the export from Australia of live sheep by sea on and after 1 May 2028
- engage existing penalties: ensure that existing offences and civil penalties relating to prohibited goods would apply to a failure to comply with the prohibition on the export of live sheep by sea
- enable spending to support the transition away from the trade: provide authority for Commonwealth spending in relation to assisting sheep producers and sheep supply businesses in preparing for, adapting or responding to the phasing out of the export of live sheep by sea.

The prohibition is limited to exports of live sheep by sea and the Act will continue to regulate:

- the export of live sheep by air
- the export of all other livestock, by sea or by air, including the export of live cattle.

The Office of Impact Analysis has acknowledged the department's certification of the report provided by the panel as an Impact Analysis Equivalent for the measures proposed by the Bill (OBPR22-02444). The Office of Impact Analysis published the Impact Analysis Equivalent on its website on 13 May 2024 in the document titled, *Independent panel report – Phase out of live sheep exports by sea*.

The date

The government has announced the export of live sheep by sea will end on 1 May 2028.

The choice of 1 May coincides with the start of the Northern Hemisphere summer. The Northern Hemisphere summer prohibition was first implemented in 2019 to restrict the live export of sheep to the Middle East during the hottest, most humid part of the Northern Hemisphere summer period to reduce the risk of heat stress in animals. Restrictions and conditions associated with the existing prohibition begin on 1 May each year, though start and end dates vary by market (based on geography and therefore weather conditions) meaning some trade can continue until mid-June. The 1 May date is the earliest commencement date of the restrictions, conditions and prohibition period and will capture all markets in 2028 before the staggered start dates would otherwise commence.

Aligning the date of the end of exports of live sheep by sea with the current known adjustment in the trade is designed to be less disruptive for impacted stakeholders. It is an existing known pause in the trade.

The choice of 2028 reflects the recommendation of the panel that observed this timeframe balances the varied stakeholder interests and steps required for change.

Legislating the cessation date considers the need to provide definitive certainty for individuals, businesses and communities in the sheep industry and supply chain. This will enable them to make management decisions or investments in a planned and timely manner with confidence to adjust on-farm operations, increase processing capacity and to ensure markets options are in place.

The transition period is intended to provide adequate time for an orderly transition while not creating unintended negative animal welfare outcomes (that might arise with an earlier date).

Penalties

This Bill would provide for existing offences and civil penalties in the Act to apply to a failure to comply with the prohibition on live sheep exports by sea. These existing offences and civil penalties apply to the export of permanently and temporarily prohibited goods under the Act.

These offences and penalties are necessary to ensure that there is a sufficient deterrent for the conduct of exporting live sheep by sea on and after 1 May 2028, particularly for corporations.

Spending authority

In the 2024-25 Budget, the government committed \$107 million from 2024-2025 to assist sheep producers and the range of enterprises in the sheep supply chain, particularly in WA, to transition away from the trade. Measures will be available to help all parts of the sheep industry supply chain, including but not limited to producers, truck drivers, shearers, and processors.

Amendments have been included in the Bill to provide authority to enable the Commonwealth to spend funds in relation to assisting sheep producers and the sheep supply chain in preparing for, adapting or responding to the phasing out of the export of live sheep by sea.

The amendments have been included in the Bill to enable the government to start spending these funds from the beginning of the financial year to enable those affected by the phase out to be ready when the trade ends in 2028.

Context

Domestic producers and flock

There were 18,323 agricultural businesses involved in the sheep and lamb industry throughout Australia in 2021-22 (MLA State of the Industry Report – 2023).

In 2021-22, most of the Australia’s sheep population were in New South Wales (39%), Victoria (21%), WA (18%) and South Australia (15%). Tasmania and Queensland each had 4% of the national flock (ABS, 2023).

Since 2017-18, live sheep exports by sea have only occurred from WA.

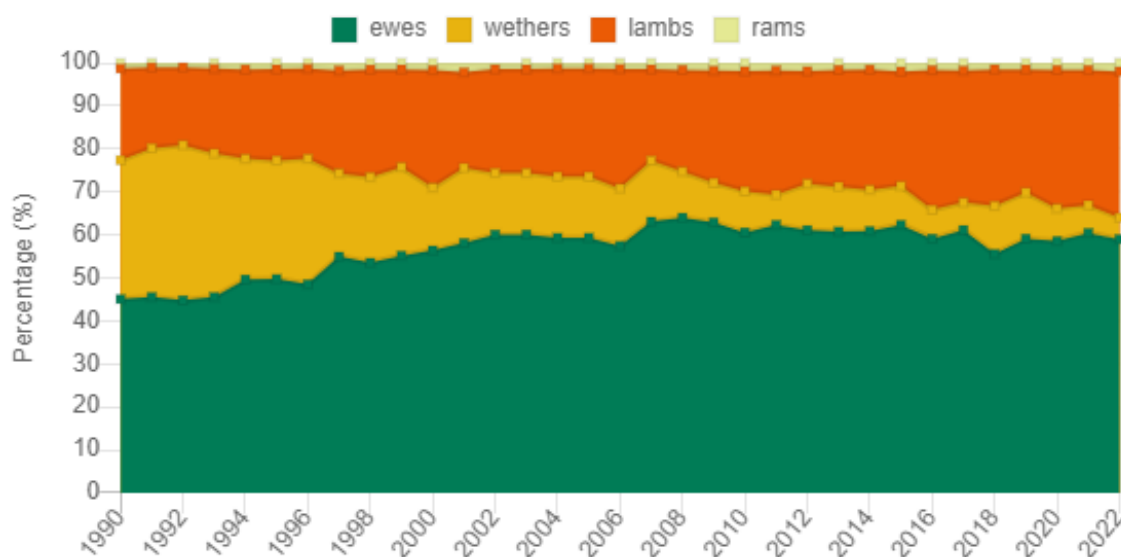
ABARES forecasts the average number of sheep per farm enterprise with sheep in WA in 2024 to be 2,050 head (ABARES Farm Data Portal).

In 2020-2021, there were estimated to be 4,303 businesses in sheep livestock production within WA (ABS). ABARES estimates around 4,000 had a sheep flock of at least 100 head of sheep (a rough lower bound for commercial-scale sheep farming). Around 2,200 are specialist sheep farms that derive at least 50% of farm receipts from sheep meat and/or wool but may also derive income from other livestock or cropping activities. The other 1,800 farms with at least 100 head of sheep are mixed farms primarily deriving their income from cropping.

The report from Episode 3 commissioned by the panel presented results from an online survey of the sheep supply chain to which 379 businesses responded. The results showed zero businesses (including exporters) relied on the live sheep export trade for greater than 50% of their income, including exporters. Further, of the respondents 259 were sheep producers who indicated they were 25-50% reliant on live sheep exports.

Figure 1 shows how over time the composition of the WA sheep flock has changed. The last reported situation in July 2022 for WA provides a total of 12.4 million head of sheep - 59% ewes, 5% wethers, 34% lambs and 2% rams.

Figure 1 Composition of the WA sheep flock, 1999 to 2022



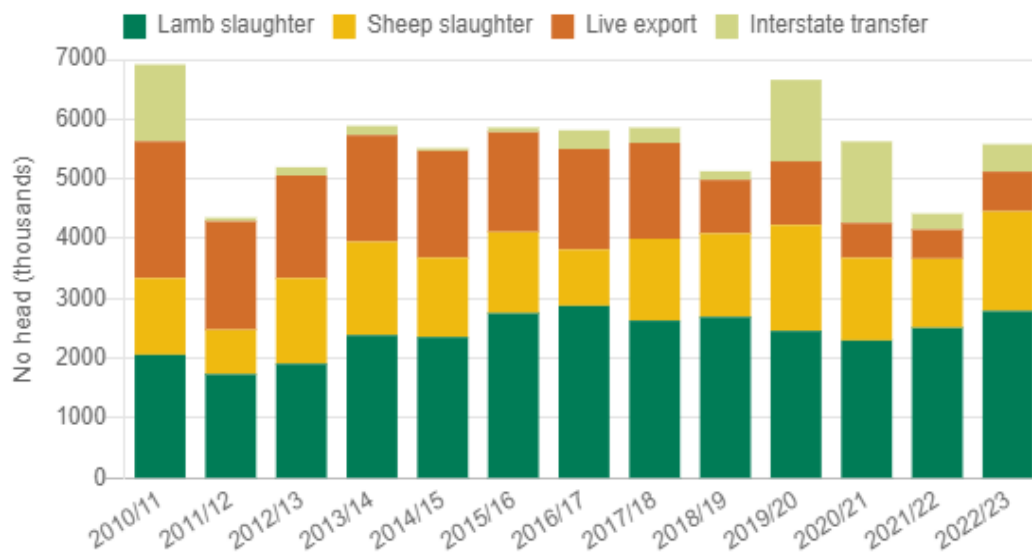
Source: ABARES/MLA data, DPIRD analysis

Sheep turn off in WA from 2010-11 to 2022-23 is presented below in Figure 2.

In 2022-23, sheep turn off in WA was 5.7 million head which composed of:

- 80% to domestic slaughter (lamb 2.8 million head and sheep/mutton 1.7 million head)
- 12% to live export (0.7 million head)
- 8% to interstate transfers (0.5 million head).

Figure 2 Number of sheep (in thousands) turned off from WA farms from 2010-11 to 2022-23



Source: ABS & PIRSA data, DPIRD analysis

Trends in live sheep exports by sea

From 2001-02 to 2022-23, the number of live sheep exported by sea has decreased by 90%, from approximately 6,647,000 head to approximately 652,000 head (ABARES Trade Dashboard).

Live sheep can be exported by sea in single species or mixed species shipments. Shipments from WA in 2022-23 are in Table 1.

Table 1 Shipments of livestock from Fremantle Port in 2022-23

	Load count	Consignments	Voyages
All voyages	692,611	33	28
Mixed species	633,888	17	13
Cattle only	40,277	15	14
Sheep only	18,446	1	1

Source: department records

Live sheep exports are a small proportion of export revenue from all sheep products and all agricultural products (see Table 2).

Table 2 Live sheep exports compared to all sheep product exports from Australia in 2022-23

	National value	WA value
Sheep meat exports	\$4.464 billion	\$643.089 million
Wool exports	\$3.406 billion	\$693.394 million
Live export by air exports	\$8.003 million	\$3.935 million
Live export by sea exports	\$76.913 million	\$76.913 million
Total exports	\$7.954 billion	\$1.417 billion
Live export by sea as a proportion of total exports	0.97%	5.43%
Live export (by sea and air) as a proportion of total agricultural exports	0.1%	0.2%

Source: ABS

Table 3 compares sheep meat and live sheep exports by sea over 10 years from 2013--14.

Table 3 National sheep meat exports compared to live sheep exports by sea from 2013-14 to 2022-23

	Mutton export volume Kt	Lamb export volume Kt	Live sheep by sea export volume 1000 head	Mutton export value \$m	Lamb export value \$m	Live sheep by sea export value \$m
2013/14	186	236	1,974	772	1,534	176
2014/15	180	254	2,125	824	1,779	224
2015/16	156	261	1,804	699	1,771	212
2016/17	135	255	1,798	719	1,934	218
2017/18	177	280	1,938	1,021	2,262	252
2018/19	197	292	888	1,235	2,631	114
2019/20	182	280	1,047	1,364	2,692	149
2020/21	146	279	571	1,027	2,518	85
2021/22	158	288	475	1,303	3,209	80
2022/23	192	308	652	1,256	3,208	77

Source: ABARES Trade Dashboard, 2024

Table 4 shows the value and volume of live sheep exports from Australia in 2017 (calendar year) and 2022 (calendar year) within the global live sheep export trade. In 2022, Australia's share of the global live sheep trade was 3.75%.

Table 4 Global live sheep export trade, 2017 compared to 2021

	Statistic	2017	2022
Value	Australia's export value	US\$190.6m	US\$56.9m
	Total export value	US\$1,738.3m	US\$1,518.8m
	Australia's rank in exports, by value	4th	7th
	Australia's % share	11.0%	3.75%
Volume	Australia's export volume	1,950,057 head	524,908 head
	Total export volume	16,624,768 head	11,994,196 head
	Australia's rank in exports, by volume	4th	5 th
	Australia's % share	11.7%	4.38%

Source: FAOSTAT, December 2023 update

Table 5 shows global live sheep trade by volume for 2022 (calendar year).

Table 5 Global live sheep trade, 2022

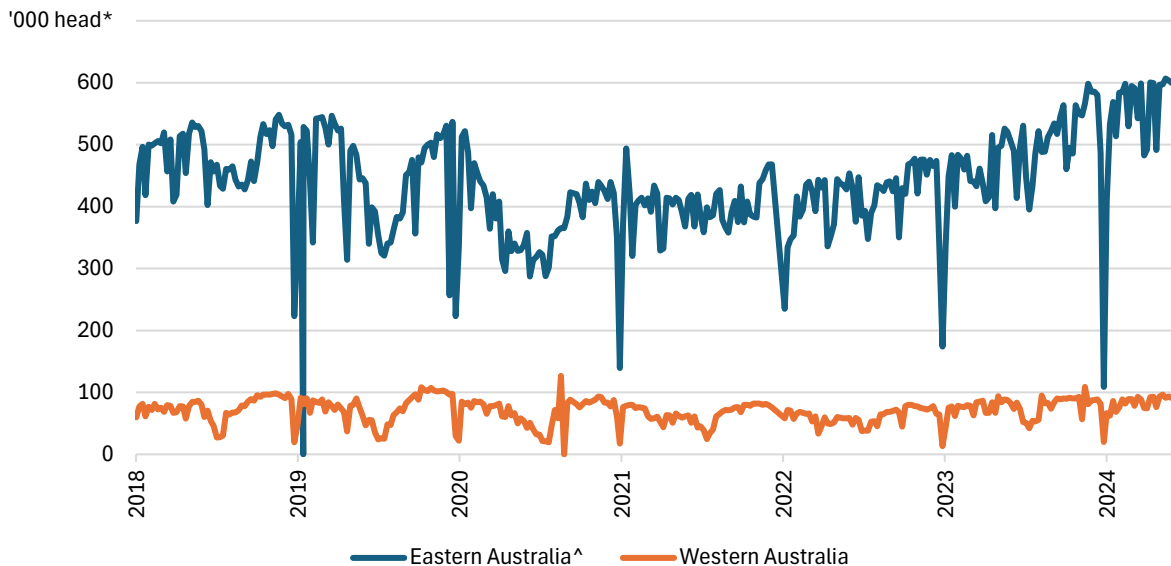
Country	Export volume (head) 2022	Proportion of global trade 2022
Romania	2,290,237	19.09%
Sudan	1,900,000	15.84%
Spain	1,500,283	12.51%
Türkiye	863,979	7.20%
Australia	524,908	4.38%
Portugal	490,684	4.09%
France	450,495	3.76%
Hungary	430,262	3.59%
Namibia	383,940	3.20%
Kyrgyzstan	336,440	2.81%
Rest of the world (comprising 68 countries)	2,822,968	23.54%
Total (all countries)	11,994,196	

Source: FAOSTAT, December 2023 update

Trends in sheep meat production, consumption and exports

Sheep meat is processed in all jurisdictions in Australia. The weekly slaughter rates of WA compared to eastern Australia is shown in Figure 3.

Figure 3 Weekly number of sheep and lambs slaughtered in Australia since 2018



Note: [*MLA's weekly slaughter](#) data is generated through a voluntary survey of processors. As such the weekly volumes reported by MLA are typically an underestimate of actual slaughter levels (reported by the ABS). ^Eastern Australian includes all states except for WA.

Source: MLA

The gross value of Australian lamb and mutton production is expected to rise to \$4.4 billion in 2024-25 (ABARES, 2024).

Australia is the largest single market for Australian beef and lamb (MLA Market Snapshot – Australia 2024). Australia continues to be one of the largest per capita consumers of sheep meat in the world. In 2023, Australians consumed approximately 7kg of sheep meat per person (MLA industry projections 2024 – Australian Sheep). Domestic consumer expenditure was approximately \$3.4 billion on lamb and \$50 million on mutton in 2022 (MLA estimate). Australian consumers prefer lamb, with around 73% of Australian households purchasing lamb, on average, 8.6 times per year (Source: NielsenIQ Homescan 52 weeks to 10/09/2023). Domestic consumption of sheep meat per person is expected to increase by 7% from 2023 to 2026 (MLA Australian Sheep Industry Projections 2024).¹

The OECD-FAO Agricultural Outlook 2022-2031 predicts growth for sheep meat globally and for Australia. Global sheep meat consumption is projected to increase from 15.9 million tonnes (MT) in 2021 to 18.1 MT in 2031 (+15%). Australia is anticipated to meet a large share of this growing global demand, in part because the New Zealand flock is forecast to decline. The top 5 consumers of sheep meat in 2022 (by volume) were China, India, Pakistan, Nigeria and Iran.

¹ MLA estimates of domestic meat consumption is measured by removing the portion of exports (department data) from total production (ABS data) and assuming the difference is consumed (or at least disappears) domestically. Imports are also added to domestic consumption when present. Per capita consumption is calculated by dividing domestic consumption by ABS population data. Please note that domestic per capita consumption is entirely a supply statistic and does not take account of waste or non-food uses of livestock meat products.

In 2022-23, ABS trade data shows that Australia exported mutton to 62 markets – WA exported to 29 of these markets.

- Australia's top 5 mutton markets by value were China, Malaysia, the United States of America (USA), Singapore and the United Arab Emirates (UAE).
- WA's top 5 mutton markets by value were China, Japan, Malaysia, the UK and the UAE.

In 2022-23, ABS figures show that Australia exported lamb to 83 markets – WA exported to 44 of these markets.

- Australia's top 5 lamb markets by value were the USA, China, the Republic of Korea, the UAE and Japan.
- WA's top 5 lamb markets by value were China, the USA, the UAE, Qatar and the Republic of Korea.

The volume of Australian sheep meat exports is forecast to reach a record high of 562 thousand tonnes in 2024-25, with this to be driven by a projected increase in lamb production and slaughter rates (ABARES, 2024).

The nominal value of sheep meat exports has increased at an annual average of 12% for the 10 years up to 2022-23. Despite the challenging climate conditions of the 2023-24 season, ABARES is anticipating the value of sheep meat exports to recover and remain at record levels over the next few years (ABARES, 2024).

Trade negotiations have improved conditions for exporting sheep meat. Under an existing World Trade Organization (WTO) quota, Australia already has tariff-free access for over 13,000 tonnes of sheep meat exports to the UK. When the Australia-UK Free Trade Agreement entered into force on 31 May 2023, Australia was able to export an additional 25,000 tonnes. Australia's quota will increase each year before reaching 75,000 tonnes by year 10 (total 88,000 tonnes, including the WTO quota). Under the Australia-India Economic Cooperation and Trade Agreement, the tariff on Australian sheep meat exports to India will drop from 30% to zero. Australia has also commenced negotiations on a Comprehensive Economic Partnership Agreement with the UAE, which is expected to deliver further opportunities for Australian sheep product exports.

Middle East region trends

In 2022–23, ABS figures show Australia exported \$632 million of sheep meat to the Middle East region, roughly 8 times the value of live sheep exports by sea to the region.

- Australia's top sheep meat export markets in the Middle East region (by value) are the UAE, Saudi Arabia, Qatar, Kuwait and Jordan
- WA made up 21.8% of the national volume of sheep meat exported to the Middle East region.

Table 6 shows live sheep and sheep meat trade from Australia to the Middle East region in 2022-23. Demand for sheep meat in the Middle East is expected to increase due to higher consumption, tourism and population growth (ABARES Outlook for livestock and livestock products).

Table 6 Live sheep and sheep meat trade from Australia to the Middle East region in 2022-23

Trading partner	Live sheep trade by sea 2022-23 (all from WA) (value)	Total sheep meat exports 2022-23 (value)	WA component of sheep meat exports 2022-23 (value, as % of total trade) <small>*values do not include live exports</small>
Bahrain	No (previously yes)	\$15.84m	\$0.96m (6%)
Israel	\$23.88m	\$5.83m	\$0.11m (2%)
Jordan	\$1.98m	\$64.95m	\$24.55m (38%)
Kuwait	\$34.99m	\$65.98m	\$11.55m (18%)
Oman	\$5.51m	\$33.19m	\$5.92m (18%)
Qatar	\$3.40m	\$74.51m	\$29.90m (40%)
Saudi Arabia	No data available yet	\$108.14m	\$27.66m (26%)
UAE	\$7.16m	\$254.23m	\$54.52m (21%)

Source: ABS

Figure 4 Infographic of government's transition plan



Transition plan

The government has set out a transition plan (Figure 4) to support the phase out of live sheep exports by sea. It is composed of pillars described in this section which enable:

- the implementation of the election commitment based on independent advice
- the provision of certainty, time and support for the transition
- enhanced animal welfare
- transition oversight and engagement with domestic stakeholders and trading partners.

The Bill is a critical foundational component of the transition plan, as set out below.

Policy commitment to phase out the trade

Following the death of 2,000 sheep on the Awassi Express, the then Shadow Minister for Agriculture, Fisheries and Forestry announced on 3 May 2018 that a Labor government, if elected, would phase out the export of live sheep by sea. This was affirmed in the 2022 Labor election commitment on Strengthening Animal Welfare.

Various reviews of the live sheep trade have prompted changes to export controls over an extended period. The government has stated that it does not consider that these changes have entirely removed the risks inherent in the trade of live sheep by sea and observed that the Australian public continues to hold concerns. The government has therefore judged it is necessary to take this action to protect the welfare of sheep.

Independent advice to government

The Minister appointed an independent panel to consult with stakeholders to provide advice on how and when the government should phase out live sheep exports by sea.

Panel members were selected based on their diverse set of skills and experiences. This includes in agriculture, public administration, economics, and animal welfare. The panel was composed of:

- Mr Phillip Glyde (Chair)
- Ms Sue Middleton
- Ms Heather Neil
- The Hon Warren Snowdon.

The panel commenced work in March 2023 and was requested to report by 30 September 2023. The panel requested an extension due to the volume and range of input received in the consultation process coupled with the analysis required of the commissioned work. The timeline was extended, and the final report was submitted on 25 October 2023.

Panel terms of reference

The panel did not consider the merits or otherwise of the government's policy to phase out live sheep exports by sea. The terms of reference were for the panel to consult with stakeholders, and to provide advice on how and when the government will phase out live sheep exports by sea.

The terms of reference for the panel noted that:

- the government intended to implement the phase out of live sheep exports by sea in such a way as to provide certainty to industry, minimise disruption and maximise opportunities
- the phase out would not apply to other livestock export industries, such as live cattle exports, and it would not apply to live sheep exports by air
- the phase out would not take place during this term of the Australian Parliament.

In conducting the consultation, the panel was asked to consider:

- potential mechanisms to phase out live sheep exports by sea
- a suggested timeframe and options for implementation
- potential ways to support the transition, including but not limited to consideration of markets, processing facilities and other opportunities
- other matters as appropriate.

The panel was requested to examine matters including but not limited to the economic impact of the phase out; agricultural production systems and on-farm management; supply chain arrangements; trade and market access; and lessons learned from other countries that have phased out live sheep exports by sea and from states and territories that no longer export live sheep by sea.

The panel was requested to engage with all relevant stakeholders, including exporters, farmers, supply chain participants, communities, trading partners, animal welfare organisations, First Nations people, state and territory governments, academics, and other relevant parties. Engagement was to be delivered face-to-face, via online forums, and via written submissions.

Information considered by the panel

The panel understood that there are many contrasting views about the government's policy, including whether it was supported and on how to implement the phase out. It deliberately sought to be inclusive of all viewpoints – both for and against the government's policy – by inviting input and contributions from a wide variety of sources.

The panel engaged with over 2,000 attendees at in-person forums, over 330 people in virtual forums and held over 80 meetings with organisations and farmer groups. The panel received over 800 written submissions and 3,300 survey responses.

The panel considered a range of existing data and analysis and included over 180 references in its report.

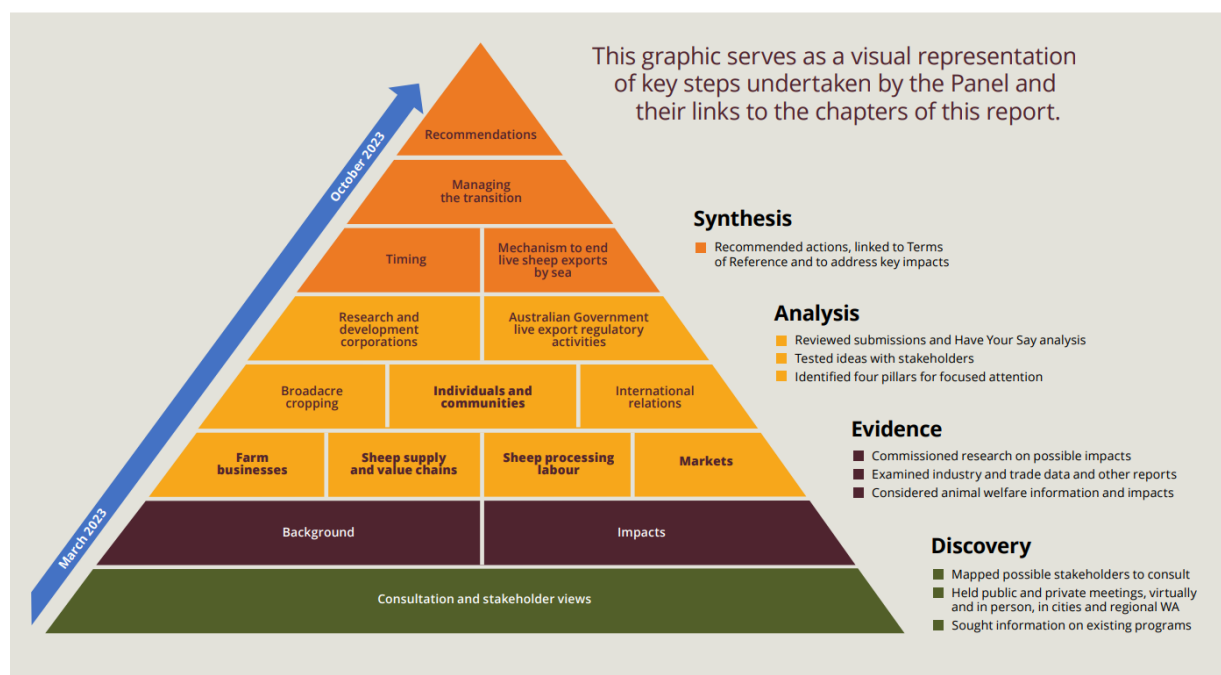
It also commissioned Episode 3 and the Regional Australia Institute to provide economic, agronomic and social impact analysis advice, and Pegasus Economics to provide a review of existing literature (Attachment A provides further information). Analysis undertaken by ABARES was considered by the panel. The panel noted in its report that it placed greatest weight on the submission from the WA Government.

Multiple studies have sought to quantify the potential employment and economic impacts of ending the trade. However, the department notes the panel’s warning that, ‘great care needs to be used in referencing and quoting from the range of past studies and the studies commissioned by the panel. No single study or report provided a definitive answer, and caution needs to be taken in interpreting and extrapolating from these studies given their necessary reliance on simplifying assumptions (such as time until the cessation) and the great difficulty in assessing the inevitable market reactions that will occur following the government’s confirmation of the parameters of the phase out’.

The panel’s consultation process and copies of information considered are available to view on the phase out of live sheep exports by sea Have Your Say website www.haveyoursay.agriculture.gov.au/live-sheep-phase-out.

The panel then tested its initial thoughts and findings with stakeholders before coming to final conclusions. A summary of this process is set out in Figure 5.

Figure 5 Panel’s approach to provision of advice



Source: Independent panel report – Phase out of live sheep exports by sea, 2023

Panel recommendations

The panel's report is available at: [Independent Panel Report \(agriculture.gov.au\)](https://agriculture.gov.au).

The panel made 28 recommendations to government to support how and when the phase out of live sheep exports by sea should be implemented. They relate to the following topics:

- farm and other supply chain businesses – recommendations 1 to 3
- infrastructure and logistics – recommendations 4 to 6
- competition – recommendation 7
- labour and training – recommendations 8 to 12
- individuals and communities – recommendation 13
- trade and international relations – recommendations 14 and 15
- research, development, extension and adoption – recommendations 16 and 17
- animal welfare – recommendations 18 to 21
- managing the transition – recommendations 22 to 26
- timing and mechanism – recommendations 27 and 28.

Certainty

On 11 May 2024, the Minister:

- released the panel's report, and government response to the report
- announced that Australia will end live sheep exports by sea on 1 May 2028
- announced that legislation will be introduced in this term of government to end the trade in law
- committed \$107 million over 5 years from 2024-25 for transition support activities.

Certainty for when the trade will end is critical. The panel noted in its report that it consistently heard, from those in favour of and those opposed to the policy, of the importance of knowing one way or the other for when live sheep exports by sea will end. Certainty is a pillar of the government's transition plan. This is achieved through the introduction of primary legislation to set the firm end date of 1 May 2028. A clear end date enables those involved in the live sheep export by sea, including producers, the supply chain and trading partners, to plan their adjustment and act in advance of the end of the trade. The government's transition plan also recognises the need for certainty in managing the mental wellbeing impacts from the decision.

Certainty is also provided through the regulation of live sheep exports according to existing standards, and that live sheep exports by sea will be able to continue until 1 May 2028 without caps or quotas. This provides a stable framework for all participants in the supply chain to continue to operate and make decisions on when and how they will cease participating in the trade by reference to their own individual circumstances.

The government response

The government's response to the panel's report is available at: [Phase out of live sheep exports by sea – DAFF \(agriculture.gov.au\)](https://www.daff.gov.au/phase-out-of-live-sheep-exports-by-sea).

Of the panel's 28 recommendations the government:

- supported 23 recommendations (19 were supported and 4 were supported in principle or supported in part, where the government did not support the recommendation in its entirety)
- noted 5 recommendations (the government has sought to engage with the panel's intent even where it noted recommendations).

In preparing the government response, the department consulted a range of Commonwealth government agencies to ensure there was a thorough coverage of measures and initiatives that could be leveraged to implement the phase out, and to support the transition away from the trade:

- Attorney-General's Department
- Austrade
- Australian Maritime Safety Authority
- Department of Employment and Workplace Relations
- Department of Finance
- Department of Foreign Affairs and Trade
- Department of Health
- Department of Home Affairs
- Department of Infrastructure, Transport, Regional Development, Communications and the Arts
- Department of Industry, Science and Resources
- Department of the Prime Minister and Cabinet
- National Indigenous Australians Agency
- The Treasury.

Relevance to the Bill

In practice, to end exports of live sheep by sea requires that the policy is implemented in Australian law. The Bill would prohibit all live sheep exports by sea from 1 May 2028. The Bill would make this an absolute prohibition on the export of live sheep by sea on and after that date. The Bill ensures that there is no capacity for exemptions from the prohibition as part of the pillar of certainty.

Panel recommendations 27 and 28 set out the terms of when and how the election commitment to phase out live sheep exports by sea should be given effect.

- Recommendation 27 provided that the end of live sheep exports by sea from Australia should occur at the beginning of the Northern Hemisphere summer prohibition in 2028.
- Recommendation 28 provided that the end of live sheep exports by sea should be legislated during this term of the Australian Parliament (47th Parliament). Legislation should describe the date from when live sheep exports by sea will be prohibited and should not apply additional restrictions such as quotas or caps during the transition period.

The panel weighed the costs and benefits of a range of transition timeframes including short (2025), medium (2028) and long (2033).

- The panel concluded that a shorter timeframe (mid-2025) would risk a disorderly transition and exacerbate animal welfare or human mental wellbeing concerns. This timeframe would also mean sheep may already be in breeding cycles that would go to beyond 2025.
- The panel concluded that a long transition period (2033) would reduce the incentive for the sheep supply chain to make timely decisions and investments, and likely create a greater expectation that the policy will be reversed.
- The panel considered the medium timeframe (2028) balanced the need to be ready for the shift to more domestic processing and provided a sufficient impetus for decisions to be made from now.

The panel considered the question of when to end live sheep exports by sea was one about finding balance. The date selected by the panel, in its view, balances all the factors it considered in its consultation and expert evidence evaluation. The government has agreed that the date strikes an appropriate balance.

Various options for enacting the end of the trade were explored by the panel. This included a gradual reduction in exports through quotas or caps, expanding the Northern Hemisphere summer prohibition period and a firm ending to the trade.

- Developing a system of quotas or caps would present a range of challenges including a high degree of complexity and cost to design, legislate, communicate and administer.
- Expansion of the Northern Hemisphere summer prohibition would alter farmers' production planning and would likely risk more peak offload points in the season.
- A firm ending to the trade, enacted through legislation, will provide the certainty needed and time for adjustments to be made.

The panel also noted that a legislated firm end date was recommended as it would be easily understood, enable clear communication and avoid confusion. Moreover, they saw benefit in the public transparency associated with primary legislation being approved through the Australian Parliament. They advised that there was benefit in passing legislation before the end of the 47th term of Parliament to provide a clear signal that the phase out was set in law to allow for adjustment to begin.

Transition time

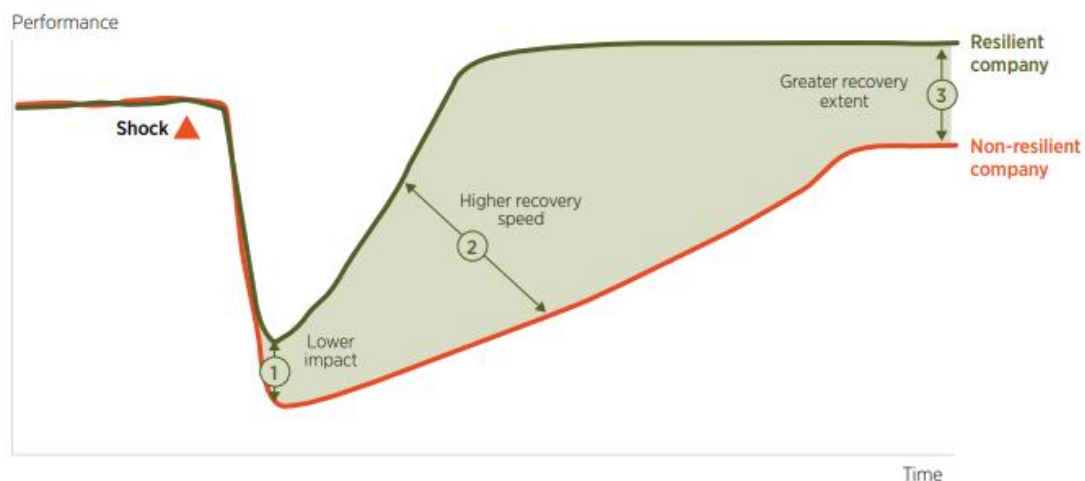
Transition time is another pillar of the government’s transition plan. The provision of 4 years advanced notice of the precise phase out date is intended to offer participants in the live sheep export by sea supply chain the ability to plan and adapt to the end of trade. The department notes that 1 May 2028 will be 10 years from when the policy was first announced in May 2018 and more than 5 years from when the Minister announced on 3 March 2023 the panel’s process to provide advice on how and when the government could phase out live sheep exports by sea.

As noted above the panel considered a range of transition timeframes. It concluded that a shorter timeframe (2025) would risk a disorderly transition and exacerbate animal welfare or individual’s mental wellbeing concerns. This timeframe would also mean sheep may already be in breeding cycles that would go to beyond 2025. The panel concluded that a long transition period (2033) would reduce the incentive for the sheep supply chain to make decisions and investments now, and risk there being a greater expectation that the policy to end the trade will be reversed (and adjustments avoided). The panel recommended a medium timeframe (2028) as it judged it balanced the need for the supply chain to be ready for the shift to more domestic processing and it is creating a sufficient impetus for decisions to be made from now.

The transition plan recognises that time is a factor in reducing the potential impacts of the phase out. Removing the live export by sea market channel will impact and require change by sheep producers and the sheep supply chain, particularly in WA. The impact of the phase out can be moderated by those affected where action is taken to respond and adapt.

The panel also noted time to recover in the model of business resilience developed by the BCG Henderson Institute (Figure 6). This model highlights the starting point for businesses as being key to their ability to prepare for threats, withstand change, recover and then shape their business in the post-shock environment. Resilient businesses are those that will have these advantages in place ahead of time, helping them to achieve better and faster outcomes than non-resilient companies. In addition to reducing the size of impact, resilience plays a significant role in the speed of recovery.

Figure 6 Business resilience model (BCG Henderson Institute)



Source: BCG Henderson Institute

The panel's view was that the WA sheep industry can be profitable and sustainable during the transition period and beyond the end of live sheep exports by sea. The panel also assessed that early action by governments to support the industry to transition to a new value chain without live export will enhance industry resilience and minimise adverse impacts.

The department notes that the panel did not suggest that the trade can only end after certain transition activities and measures are fully completed; rather that the path towards the end of the live trade by sea may be smoothed by these actions.

Relevance to the Bill

A firm end date to the trade, enacted through legislation, is to provide sufficient time for adjustments to be made. The Bill would prohibit absolutely the export from Australia of live sheep by sea on and after 1 May 2028.

Transition support

The panel noted in its report that, 'delays in delivering support could hinder change readiness, stymie confidence and lead to a more substantial drop in the WA flock size if businesses have not planned how to turn off their sheep, if processors are not ready to manage increased throughput or if demand for sheep products has not grown sufficiently in overseas markets'.

Another pillar of the government's transition plan is the commitment of \$107 million over 5 years from 2024-25 to assist with the transition away from live sheep exports by sea. The commitment was made to provide greater confidence and capacity for those impacted to start to plan and to begin acting early in the transition period.

The transition support package contains several complementary elements aimed at facilitating systemic change. The transition support package is not based on offsetting the potential impact to industry. It has been designed to give the best effect to the panel's recommendations to deliver transition support for the phase out. The intention is to facilitate the sheep supply chain to smooth out its adjustment to the end of the trade in 2028.

Within the transition support package, \$64.6 million is intended to assist sheep producers and the supply chain, particularly in WA, to capitalise on existing and emerging opportunities so that they are well positioned when the trade ends. Funding will assist businesses to plan and implement transition actions and to expand domestic sheep processing capacity. It will also support community wellbeing activities and rural financial counsellors. More information about these assistance programs will be made available in the second half of 2024.

The intent of the transition support is to assist individuals, businesses and communities to take actions appropriate to their own circumstances. For example, sheep producers have a range of options with respect to flock structure and management, ranging from finishing their sheep on feed, changing ram selection over several seasons to one that has better meat attributes (e.g. to produce first cross lambs from merino ewes). It is acknowledged specialist stud breeders will take time to changing the genetic attributes of their stud flock, just like they do whenever they have bred for particular attributes in the past. Which actions are appropriate is a decision for the individuals and businesses concerned. The government's transition plan and the assistance programs are not intended to mandate a single path to transition away from the trade.

More sheep are expected to be processed in Australia with the phase out of live sheep exports by sea. The transition support is intended to assist with expanding domestic processing capacity. In 2022-23, just over 652,000 head of sheep were exported live from WA by sea. While processing capacity is a commercial matter, as the department regulates export sheep processing facilities, it does have some awareness of processing capacity. Based on 2022-23 levels of processing at export registered establishments, processing 650,000 head of sheep accounts for approximately one week of Australia's overall export sheep processing volume or around 7 weeks of WA's export processing volume. Furthermore, while this financial year to date (2023-24) saw sheep and lambs being processed for export at the highest volume of the last 5 years, the department understands there continues to be further latent capacity within the sector. Examples of latent capacity include:

- establishments increasing their staffing to run the chain faster during existing production shifts
- establishments lengthening productions shifts, and or, adding weekend shifts
- some establishments are also eligible to run nighttime shifts
- several establishments (including, Shark Lake, Esperance, WA) that are export registered, but which are currently offline and undergoing refurbishment.

The transition support package also includes investment of \$27 million to enhance demand within Australia and internationally for sheep products to both maintain and develop market opportunities. With a range of delivery partners, including Austrade, this will fund activities such as market analyses, consumer studies, product promotions and building business relationships. Agricultural counsellors and Austrade will also work to support Australia's diverse agriculture and food trade to the Middle East and North Africa region.

In addition, the government response identifies a range of existing government initiatives that may contribute to a smooth transition away from the trade including:

- several reviews of competition issues (relating to the panel's recommendation 7).
- the government's migration strategy, programs to upskill and reskill workers, employment programs (including for First Nations people) and reviews of labour conditions (relating to the panel's recommendations 8-12).
- mental health support (relating to the panel's recommendation 13).

Relevance to the Bill

The panel asserts in its report that, 'the potential impacts of the cessation on individuals and communities can be moderated with support for farm businesses, the sheep processing industry, labour supply and market development. The recommended time frame allows for support to be given, resilience to grow and adjustments to be made. Prompt announcements and early actions by government will be crucial for lifting confidence and making progress towards a strong future for the WA sheep industry for the benefit of individuals, businesses and communities'.

Several of the panel's recommendations point to supporting the whole supply chain together with the development of markets to enable the transition away from the trade. These include recommendations 1-4, 11-14, 16, 18 and 26.

In response, the government has committed \$107 million in transition support from 2024-25. The Bill would provide authority for Commonwealth spending and enable the government to begin expending these funds as early as practicable in the 2024-25 financial year.

Transition oversight and engagement

The panel highlighted that good communication is fundamental to achieving a successful transition and will contribute to certainty for all stakeholders. The government's transition plan includes a pillar on ensuring there is appropriate oversight and consultation to support the implementation of the phase out.

The government supports panel recommendation 26 and will appoint a Transition Advocate in the 2024-25 financial year to facilitate two-way communication between industry and government, provide information to industry about the transition plan and support, and provide advice to government on how the transition is progressing. An allocation of \$1.7 million has been made to establish the role and support its administration.

Funding of \$11.1 million has been allocated from the transition support package for the implementation of the phase out and to facilitate ongoing engagement with industry, communities, trading partners and other stakeholders. For example, the department will seek opportunities to connect with individuals and industry representatives through the phase out to help target assistance measures and receive feedback on their rollout. The government and the department will also continue to engage with trading partners. For example, government officials, including those at overseas diplomatic posts, have engaged, and will continue to engage, with Middle East authorities about the government's decision the phase out live sheep exports by sea and to explore opportunities for how Australia can continue to support the region's food security.

The government will also undertake a stocktake of transition progress in 2026-27. This will include an assessment of the effectiveness of the transition support package. The department notes the government has specified that the stocktake will not reconsider the end date for the trade and the timeline for the transition will not change. This was to ensure there would be no capacity to introduce uncertainty into the transition mid-stream.

Continued regulation of live sheep exports by sea

Regulation of live sheep exports by sea will continue to occur under the existing arrangements and standards up until and beyond the phase out without caps or quotas. Regulatory requirements, including licencing, Australian Standards for the Export of Livestock (ASEL) and Exporter Supply Chain Assurance System (ESCAS), will remain in place and still apply to livestock exports. This section of the submission summarises these requirements.

In addition, the department will facilitate a process to provide for practical improvements to sheep welfare standards, and support for global advocacy of animal welfare will also be undertaken as another pillar of the government's transition plan (Figure 4).

Standards

As part of the regulatory framework for live animal exports, the department develops and maintains very high standards that exporters are required to meet before, during, and after livestock export.

The ASEL set out animal health and welfare conditions exporters must meet throughout the export supply chain. The ASEL are regularly updated to ensure they are based on the latest available evidence and science. Compliance with ASEL is assessed by the department prior to export through inspection of export consignments and during the journey through daily and end of voyage reports.

Australian Maritime Safety Authority

No livestock export consignment is permitted to depart Australia unless the Australian Maritime Safety Authority has certified the vessel as safe and appropriate to transport livestock. This is met if there is a current Australian Certificate for the Carriage of Livestock for the vessel.

Independent observers

For certain sea voyages, the department may require an independent observer to accompany the voyage to assess exporters' compliance with animal welfare requirements. Observers report their findings to the department, with any non-compliance acted upon.

The department publishes summaries of these reports on its website which include representative images of on-board conditions.

Northern Hemisphere summer prohibition

The Northern Hemisphere summer prohibition was first implemented in 2019 to restrict the live export of sheep to the Middle East during the hottest, most humid part of the Northern Hemisphere summer period to reduce the risk of heat stress in animals.

Restrictions and conditions associated with the existing prohibition begin on 1 May each year, though start and end dates vary by market (based on geography and therefore weather conditions), meaning some trade can continue until mid-June.

ESCAS

When feeder and slaughter livestock arrive in an importing country, exporters must ensure they are handled and slaughtered in accordance with ESCAS.

ESCAS is a set of regulatory conditions placed on exporters, requiring them to have arrangements in place with supply chain partners to ensure the humane treatment and handling of livestock is provided from the time the animals arrive in the importing country up to and including the point of slaughter. Australia is the only country in the world with such a regulatory system in operation.

In circumstances where non-compliance with ESCAS is alleged, the department investigates to the fullest extent possible. While no regulatory system can ensure that there will never be an incidence of non-compliance, ESCAS provides a process to investigate and address incidences of non-compliance in a manner that minimises the disruption to trade and improves animal welfare outcomes.

Independent oversight

The Inspector-General of Animal Welfare and Live Animal Exports (IGAWLAE) reviews the performance of functions and the exercise of powers by the department in regulating livestock exports under the Act and Rules. The IGAWLAE review program is independent from the department's internal audit and performance management programs. IGAWLAE reports are publicly available at <https://www.igawlae.gov.au/>.

Enhancements

The transition support package provides \$2.6 million to continue to improve sheep welfare standards so that they are practical and meet the latest science, and for Australia to enhance its engagement in the World Organisation for Animal Health. These activities respond to the panel's recommendations 19 and 20.

Regulatory burden lifted by the Bill

The end of the live sheep export by sea trade will mean existing regulatory burden for the live export trade will no longer apply including:

- Quarantine and health protocols: Live sheep exports require adherence to stringent quarantine and health protocols to ensure the animals meet the importing country's regulatory standards. These measures involve health examinations, vaccinations, and quarantine periods. Requirements for the export of sheep meat would continue.
- Transport and logistics: Exporting live sheep involves significant logistical measures. Transportation by sea or air requires specialised infrastructure and vessels equipped to handle live animals. Transportation costs include vessel chartering, animal handling facilities, and veterinary services. Requirements for the export of sheep meat would continue.

- Compliance with livestock export regulations: Adherence to Australian regulations, such as ASEL and ESCAS, is mandatory. These regulations set out specific requirements for the welfare, food provisions, and overall conditions of animals during transportation. Sea voyages carrying live sheep must also comply with standards set by the Australian Maritime Safety Authority.
- Compliance with livestock import regulations: Each importing country may have specific import regulations and documentation requirements for live animal imports. Complying with these regulations involves administrative procedures, certifications, and inspections. Requirements for the export of sheep meat would continue.

Conclusion

The department thanks the Committee for this opportunity to provide a submission on the Bill and would be happy to provide further information on request.

Attachment A – Panel commissioned consultancies

A significant amount of attention since the announcement has focused on commissioned analysis to support the panel's deliberations. For this reason, additional detail on this analysis is set out below.

The panel commissioned research and analysis to inform its deliberations. The department, acting as secretariat to the panel, completed the procurement processes in accordance with the Commonwealth Procurement Rules.

Three contracts were awarded for research and analysis to assist the panel:

- Episode 3
- Regional Australia Institute
- Pegasus Economics.

Episode 3

The panel sought the direct engagement of Episode 3, as it was keen to obtain economic and agronomic analysis by an entity that had pre-existing knowledge of the WA live sheep export industry.

In engaging Episode 3 the panel understood its publicly known position that it did not support the government's policy to phase out live sheep by sea.

The panel asked Episode 3 to provide analysis about how an industry transition could be implemented to give effect to the government's policy. Episode provided a report that identified and provided economic and agronomic analysis of the potential effects on farmers, businesses and other supply chain participants by the phase out. The report is available at [Phase out of live sheep exports by sea – Agriculture hub](#).

Timeframe

As part of the terms of reference Episode 3 was required to assess 2 timeframes, a short and a long phase out period. Episode 3 were independently able to determine what they considered was a "short" and a "long" timeframe. Episode 3 devised:

- a 5–8-year timeframe
- an 8-12-year timeframe.

The 2 time periods assumed that the phase out would be finalised after the next election, which was assumed to be in 2025 and would be treated as year zero.

Genetics

Episode 3 suggested that a complete change of the genetics of the WA sheep flock would be required during the transition, and therefore the transition period may need to be 14 years in length.

The 14-year period put forward by Episode 3 assumed that research and development trials would be required to refine the genetic mix best suited to the WA region and meat market needs. The 14 years would allow for a complete change of genetics but there was an indication that there would be similar profitability after 7 years.

Episode 3's analysis did not provide a detailed, corresponding analysis of how such a complete change of genetics to the WA flock would impact wool production, which was valued at \$693.394 million for WA in 2022-23.

Meat processing

An Episode 3 survey showed that WA processors currently employ approximately 1,750 full-time equivalent (FTE) workers.

Episode 3 estimated that the industry would need to increase to about 3,200 FTE in total if live sheep exports by sea are phased out. The analysis did not provide a detailed explanation for why such a significant increase would be required or how the additional staff would be deployed.

As part of its data gathering, Episode 3 asked WA processors to provide an estimate of their slaughter capacity under the assumption that access to labour was not a barrier, nor offshore demand, and there would be no logistical problems downstream. This scenario indicated that monthly slaughter limits could increase from 424,000 to 560,000 head. While these are capacity estimates, processors would still make decisions about whether to run at capacity when considering market signals such as price, supply and demand.

The analysis considered the historical use of air freight of live sheep and its potential, particularly to replace the use of live sheep exports by sea. The analysis noted that air freight was disrupted by the Covid-19 pandemic and that while air freight was a good option, existing capacity could not fully accommodate all the sheep that would otherwise be bound for live export by sea.

Sheep flock

Episode 3 estimated the potential decline in the sheep flock based on producer intention surveys. This indicated a wide range of potential decreases in the flock of between 450,000 to 2.9 million head. This was based on the surveys indicating anywhere between 14% and 44% of producers indicating they would choose to exit sheep production entirely with a phase out of the live trade.

Scenarios

Episode 3 put forward 7 scenarios to suggest how sheep farmers in WA could transition away from live sheep exports by sea:

- running wethers for longer: keeping wethers on the farm for at least another year instead of selling them as lambs for live export
- shifting lambing time and targeting the airfreight market leads to higher productivity due to lower winter nutritional requirements
- using a larger dual-purpose Merino genotype for lamb production and potentially finishing on stubbles, fodder crops or feedlots

- superfine wool flock with focus on fleece value: producing super fine wool with higher fleece value
- transition to shedding sheep flock
- self-replacing cow/calf enterprise
- transition to a trading steer enterprise.

How the panel used the Episode 3 advice

The panel commissioned advice from Episode 3 on the potential impact of the end of live sheep exports by sea on the WA sheep industry supply chain, and strategies to minimise the impact on stakeholders.

The panel noted in its report that forecast effects are primarily based on assumptions which can limit their utility.

The data and insights from the Episode 3 study were utilised where they provided specific insights such as the proportion of a business's exposure to live sheep exports, feedlot capacity or flock size modelling.

The panel also drew from the Episode 3 report when discussing specific issues including potential impact of the phaseout; grain/feed pellet industry; meat processing capacity; transport; and accommodation issues.

Regional Australia Institute

The Regional Australia Institute (RAI) was approached to access information it held in relation to rural and regional communities and associated housing and employment data.

The RAI was engaged to undertake social research on the potential effect of the transition away from live sheep exports by sea for the main sheep-producing regions of WA. The report is available at [Phase out of live sheep exports by sea - Agriculture hub](#).

Regions

The RAI report focused on 3 regions that are likely to be impacted by the phase out: Mid West-Gascoyne, Wheatbelt, and Great Southern. RAI noted that the phase out will also directly affect businesses and communities outside these regions.

Who would be impacted

RAI found that the phase out of live sheep exports by sea would provide a policy shock to individuals, communities, and businesses in the focus regions. RAI noted that live sheep are not a single enterprise system and that the impact on and responses from each enterprise and region will vary.

Research conducted

RAI conducted research into the following areas:

- a literature review of best practice in regional transitions
- regional analysis of population, employment, and housing data
- a review of the regional priorities and opportunities.

The agriculture, forestry and fishing sector featured in the top 3 industries by output in 2022 for all 3 WA regions.

The issues of housing, workforce and digital connectivity were present across all 3 regions.

Residential populations have grown in all 3 regions, but population changes in the working age population are disproportionate.

Local government areas close to WA abattoirs shows the number of housing sales have increased, but the number of rental listings has decreased. This indicated a hard market for renters and those looking to find accommodation.

Importance of place-based policy approaches

RAI found that international and Australian experiences of transitions of new industries or changes within an existing industry highlight the importance of place-based policy approaches.

Place-based strategies can leverage existing assets, community leadership, and knowledge of community needs, and builds resilience in communities.

Recommendations on regional priorities

RAI noted that the government has a range of approaches to consider in supporting the 3 key regions through this transition. RAI's review of regional priorities highlights that:

- the support response would benefit from addressing the micro and macro impacts of the phase out to ensure a profitable sheep industry with integrated strong regional development outcomes
- there is a suite of mechanisms available to government to provide a multifaceted Transition Plan, and
- there would benefit from embedding on-ground industry and regional intelligence in the design and delivery of the Transition Plan to build upon existing efforts in economic diversification and value-add opportunities for growth and resilience.

Transition pathways

From its research, RAI proposed 8 transition pathways relating to economic diversification and meat processing.

RAI suggested that a regional intelligence delivery model would support immediate local transition arising from the phase out.

This kind of model would require support for mobilising mental health services, investment in enabling infrastructure, and housing availability for workers.

RAI noted that there is a general sense among the regions that the phase out presents opportunities to strengthen meat processing hubs.

RAI suggested establishing a Coordination Group and Investment Fund to advise on strategies for increasing meat processing capacity, such as financial support for impacted businesses, reinforcing market development, and workforce attraction for industry to respond.

RAI's research indicated that stakeholders from the 3 key regions expect the phase out to impact:

- livestock prices
- demand on existing meat processing facilities which currently face workforce shortages
- industry confidence stability, community resilience and individual mental health
- workforce numbers in the WA sheep supply chain
- international trade relations, and
- other factors in WA's wool, cattle and broadacre cropping industries.

RAI highlighted the economic development opportunities for each of the 3 key regions. This includes mining, renewable and hydrogen energy, carbon farming and green energy, tourism, and education.

International examples

Through research into other communities in transition, RAI noted some key lessons learnt from nations like Canada, the United States of America, the United Kingdom, as well as Australia. Some lessons learnt include:

- early intervention and assistance to communities in transition is vital in the early stages
- economic diversification is beneficial in transitions
- resilience of communities will impact how well transition is received
- policy and industry action need to take a long-term view of development
- identifying existing regional resources can assist in the creation of new opportunities for communities
- First Nations involvement can improve environmental and social sustainability in remote communities
- engagement with community leaders can assist in the process with perceptions of fairness, ownership, and community support
- jobs can form the identity of a person and be an emotional trigger when these are being viewed as taken away
- regions already experiencing economic decline will need greater assistance in recovery from the loss of a major industry

- early notification and communication of industry changes allows time for employees and their families for financial and career planning
- training needs to be part of an overall transition plan that considers the needs and existing capabilities of the workforce and the potential for future employment in the region
- collaboration and communication between government and community when implementing policy changes can reduce ill-will between stakeholders.

How the panel used the advice

Social research on the potential effect of a transition away from live sheep exports in the WA sheep industry.

Several 'transition pathways' were developed for consideration by government, including mobilising mental health services, infrastructure and market investment, and housing availability.

Pegasus Economics

Pegasus Economics was approached to conduct factual analysis. The consultancy was undertaken to provide insight and summaries of the existing studies with a view to assist the panel in its understanding of existing material.

The panel was aware of the role of Pegasus Economics in advising animal welfare interests.

Pegasus Economics was tasked with highlighting key take-outs, signposting significant issues, explaining methodologies, and providing a factual commentary on strengths, weaknesses and potential gaps in the reports.

The 11 reports reviewed were:

- ABARES 2021: *The economic impacts of regulating live sheep exports* - research report 21.01 – February 2021 – Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), (Nelson, et al., 2021)
- ACIL Allen 2022: *The economic contribution and benefits of the Northern live export cattle industry* – August 2022
- CIE 2014): *Contribution of live exports to the Australian Wool Industry* – March 2014 – The Centre for International Economics (CIE) (2014)
- CIE 2018: *Contribution of live exports to Woolgrower's income - An Update* – July 2018
- Kingwell, et al., 2011: *The Economic Importance to Western Australia of Live Animal Exports* – July 2011 – Kingwell, R., Cunningham, P., Nath, T., Anderton, L., Xayavong, V., Curis, K., . . . Feldman, D., Department of Agriculture and Food Western Australia
- Mecardo 2018: *Live Sheep Export* – Brief Report – April 2018
- Mecardo (Dagleish, M; Agar, O, 2019): *Value analysis of the Australian Live Sheep Export Trade* – September 2019

- Mecardo (Dalglish, Agar, & Herrmann, 2020): *Impact of the live sheep export trade’s self-imposed moratorium and regulatory changes* – January 2020
- Pegasus Economics (Davey & Fisher, 2018): *Economic Issues Associated with the Live Sheep Export Trade* – March 2018
- Pegasus Economics (Davey & Fisher, 2020): *Economic Implications of Phasing Out the Live Sheep Export Trade* - April 2022 – Pegasus Economics (Davey & Fisher, Live Sheep Export Trade: Review of the Draft Regulation Impact Statement, 2020)
- Pritchett, 2019: *Implications of management decisions on the WA sheep flock in response to changing markets* – April 2019 – Pritchett, K, Department of Primary Industries and Regional Development, Western Australia

The work commissioned by the panel from Pegasus Economics comprised 3 documents, as follows:

- a [Literature Review on the Live Sheep Export Industry](#) – Pegasus Economics provided a summary of 11 existing studies covering context; areas of focus; major findings and conclusions; key assumptions and methodology; impact/reception and key takeaways.
- a [Review of Assumptions in Reports on the Live Sheep Export Industry](#) – Pegasus Economics reviewed the 11 existing studies and summarised the different assumptions and findings in each. This assisted the panel to understand where similar or different assumptions had been used in different analyses and therefore whether conclusions were comparable.
- an [index of major issues considered in reports](#) – Pegasus Economics collated a list of existing studies about the live sheep export industry and the issues covered in each report for the panel’s reference.

To assist the Committee in finding advice on relevant issues the full version of the Pegasus Economics report *Index of major issues considered in reports* is provided below.

Animal Welfare Issues	Kingwell, et al., (2011, pp. 7-9) Mecardo (Dalglish, Agar, & Herrmann, 2020, pp. 24-27) Pegasus Economics (Davey & Fisher, 2018, p. 1) Pegasus Economics (Davey, Fisher, & Morley, 2022, pp. 1-3)
Cattle Industry	ACIL Allens (2022) Kingwell, et al., (2011, pp. 6-7, pp. 16-21) Mecardo (Dalglish, Agar, & Herrmann, 2020, p. 23)
Determinants of Lamb/Sheep Prices	ABARES (Nelson, et al., 2021, p. 11, p. 17) CIE (2014, p. 6, p. 8) CIE (2018, pp. 14-16) Mecardo (2018, pp. 5-8) Pegasus Economics (2018, pp. 14-18) Pegasus Economics (Davey, Fisher, & Morley, 2022, pp. 14-19)
Economy Wide Impact of Live Sheep Export Trade Termination	Kingwell, et al., (2011, pp. 42-43) Pegasus Economics (Davey & Fisher, 2018, pp. 29-30)

Employment Impacts of Live Sheep Export Trade	Mecardo (Dalglish, M; Agar, O, 2019, p. 6) Mecardo (Dalglish, Agar, & Herrmann, 2020, p. 15, 17, 21) Pegasus Economics (2018, p. 29, pp. 30-31) Pegasus Economics (Davey, Fisher, & Morley, 2022, p. 26)
Income Impact on Farmers from Disruption/Termination of Live Sheep Export Trade	ABARES (Nelson, et al., 2021, pp. 5-6, pp. 13-15) CIE (2014, pp. 6-17) CIE (2018, pp. 1-4, pp. 14-18) Kingwell, et al., (2011, pp. 37-43) Mecardo (2018, p. 8) Mecardo (Dalglish, Agar, & Herrmann, 2020, pp. 5-6) Pegasus Economics (Davey & Fisher, 2018, pp. 12-14) Pegasus Economics (Davey, Fisher, & Morley, 2022, p. 22)
Live Sheep Export Trade Overseas Markets	Kingwell, et al., (2011, pp. 12-14) Pegasus Economics (Davey & Fisher, 2018, pp. 18-26) Pegasus Economics (Davey, Fisher, & Morley, 2022, pp. 11-14)
Price Impact from Live Export Trade Disruption/Termination	ABARES (Nelson, et al., 2021, pp. 9-11) CIE (2014, pp. 6-17) CIE (2018, pp. 1-4, pp. 14-18) Mecardo (2018, p. 8) Pegasus Economics (Davey & Fisher, 2018, pp. 12-14) Pegasus Economics (Davey, Fisher, & Morley, 2022, p. 22)
Sheep Farming in WA	Kingwell, et al., (2011, pp. 4-6, pp. 25-27) Pritchard (2019, p. 1, p. 7, pp. 12-13, p. 13, p. 15)
Sheep Meat Processing	ABARES (Nelson, et al., 2021, pp. 3-5, p. 7, p. 16) CIE (2014, p. 8, p. 9, p. 17) CIE (2018, p. 1, p. 3, p. 13, p. 15, p. 16) Kingwell, et al., (2011, p. 1. p. 2, p. 3, p. 37, p. 40, pp. 41-42) Pegasus Economics (Davey & Fisher, 2018, pp. 30-38) Pegasus Economics (Davey, Fisher, & Morley, 2022, p. 6, p. 10, p. 11, pp. 25-27)
Social/Regional Impacts	Kingwell, et al., (2011, p. 1, p. 2, p. 3 p. 15, p. 22) Mecardo (Dalglish, Agar, & Herrmann, 2020, p. 15, p. 21, p. 28) Pritchard (2019, p. 13)
Supply Chain Impacts	Mecardo (Dalglish, M; Agar, O, 2019, pp. 7-10) Mecardo (Dalglish, Agar, & Herrmann, 2020, pp. 6-23)