



For all creatures great and small.



Australian Livestock Export Standards – a flawed process

An analysis of the report *World Livestock Export Standards: A comparison of development, processes, systems and outcomes achieved*. Published by Meat & Livestock Australia (2006).

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Executive summary

In March 2006, Meat & Livestock Australia (MLA) published the report *World Livestock Export Standards: A comparison of development, processes, systems and outcomes achieved* (Whan et al. 2006). This report drew comparisons in terms of animal welfare between the Australian Standards for the Export of Livestock (the ASEL: version 1, July 2005) and similar standards from other livestock-exporting nations. From this report they concluded that the Australian Standards are superior to other similar standards and do not require immediate or major revision. As a consequence, the livestock export industry now claims that Australia has world's best-practice standards in terms of their coverage of species and phases of transportation and their capacity to deliver acceptable outcomes when measured against animal welfare indicators.

Given the numbers of animals and the serious animal welfare issues involved in the livestock export trade, and the controversial nature of the trade, it is imperative that any claims about the quality of Australian standards are based on sound, unbiased research. This report presents a thorough assessment of the *World Livestock Export Standards* report and concludes that it is neither good quality nor unbiased, and that the conclusions it draws are fundamentally invalid and not supported by the findings of the report itself.

Australia is the largest exporter of livestock in the world, exporting over 4,000,000 sheep, 600,000 cattle and 55,000 goats to overseas destinations each year (ABS 2006, Norris & Norman 2007). The total value of livestock export to the Australian economy is estimated by the industry body LiveCorp to be \$730 million (www.livecorp.com.au).

Proponents of the livestock export trade argue that it provides a valuable alternative market for livestock and makes an important contribution to the rural Australian economy. However, there are significant animal welfare concerns associated with this industry. The millions of livestock exported from Australia each year face long journeys from the farm gate to the port of destination with little freedom of movement, variable air quality, no access to fresh fodder, high risks of exposure to infectious disease, and sometimes extreme variations in climatic conditions.

Mortality during live export is high compared to other types of transport, at 0.9% for sheep (approximately 37,500 animals), 0.18% for cattle (approximately 1,000 animals) and 0.49% for goats (approximately 280 animals) in 2006 (Norris & Norman 2007). As this is only a measure of fatalities, the proportion of sick or injured animals would be considerably higher. The fate of surviving animals once they are unloaded at the port of destination is not subject to the same standards of welfare as apply in Australia in terms of general welfare, transport, handling and slaughter.

Until recently the Australian livestock export trade was self-regulated. However, a string of major incidents in the 1990s and early 2000s where voyage mortality levels ranged from 10-100%, sparked a government enquiry into the livestock export industry and its regulation, eventually resulting in the development of regulated Standards for the export of livestock, the ASEL, in 2004. Despite the introduction of the ASEL, criticism has continued to be levelled at the livestock export trade regarding both transport conditions and the fate of exported livestock in their destination countries.

The *World Livestock Export Standards* report sets out to compare the specificity and rigor of livestock export standards in individual countries participating significantly in the trade, with the ASEL being used as a benchmark for this comparison. While the report provides some useful reference material for livestock export standards from a range of countries, it does not present a valid scientific comparison of the welfare provisions of these standards. RSPCA Australia's assessment of the report finds that it is substantially flawed in several ways. The focus of the report is a scientific subject – animal welfare – and the report is based on a scientific framework of data collection, analysis and discussion. However the study design is poor: the report describes itself as a benchmarking study, yet although overseas standards are compared alongside each of the Australian Standards, the scoring system used is not a benchmarking system. The interpretation of data is highly subjective and inadequately described, and the main conclusions are not supported by the data and in some cases are contradicted by other parts of the same report. Fundamental problems with both the ASEL and its development process that affect the effectiveness of the ASEL were not identified and discussed.

The report does not adequately support its major claim that Australia's livestock export standards are of a high quality and do not require revision, nor does it demonstrate that Australia has world's best practice in livestock export. This assertion is based on a flawed argument; for one set of standards to be superior to others does not necessarily imply that they are of good quality, merely that the quality of comparators is poorer. Even for standards that are of high quality (ie with measurably high animal welfare outcomes), a lack of comparable standards does not rule out scope for improvement. In this case, there are significant concerns regarding both the comparison terms chosen, and the method of scoring used, that undermine the credibility of the data presented.

RSPCA Australia submits that there are substantial problems with the livestock export trade in general, and with the ASEL in particular, that were not identified in the MLA report.

Specific problems with the ASEL include the following:

1. The majority of Standards cannot be enforced under current legislation.

The Australian Government lacks direct powers to legislate animal welfare requirements. The ASEL falls under its powers to legislate with respect to foreign trade, and as such is enforced by the Australian Quarantine and Inspection Service (AQIS). However, AQIS lacks the necessary powers to enforce some sections of the Standards and as a quarantine service also is not properly equipped to cover the field of animal welfare. Thus, while the Standards take a "whole of chain approach" covering all aspects of the livestock export trade from planning through to on-board management, many sections of the Standards lie outside the jurisdictional powers of the Australian Government, and could only be enforced under State and Territory legislation. No Australian State or Territory government has yet legislated to recognise the ASEL, so it is not currently enforceable by them. As a result, large sections of the ASEL are effectively unenforceable. It should be noted that because the livestock export trade involves multiple States/Territories, and animals frequently cross boundaries during land transport, there are also some substantial jurisdictional issues that need to be resolved.

2. Many Standards require things that are not measurable or amenable to regulation

Even if the State and Territory governments adopted legislation allowing the enforcement of the ASEL and defining penalties for breaches of the Standards, many individual Standards require things that are not measurable, not amenable to regulation and not enforceable. For example, maximum water deprivation times are specified, but it is not clear how a breach of these can be identified. Standard 5 of the ASEL is even more problematic as it involves minimum requirements while animals are at sea. Regulation and enforcement are particularly difficult once animals are loaded onto a ship (very few agencies have the legal powers to enter a ship to regulate or enforce Standards). This is further clouded by the exit of the animals from an Australian State or Territory and then Australian waters.

3. Exemptions from standards are permitted with no requirement for justification.

Throughout the ASEL there is scope for exemption from individual standards following approval by AQIS. This is highly inappropriate for two reasons: (a) the Standards were never intended to be discretionary, they were developed in order to impose clear enforceable standards on an industry that had failed to adequately address animal welfare concerns under self regulation; and (b) AQIS's primary role is as a quarantine service; as an organisation it is not properly equipped to make these kinds of complex decisions on animal welfare issues. Furthermore, the Standards make no requirement for any exemptions given to be justified in terms of welfare outcomes, nor is there any form of transparency in the exemption process.

4. There is an overall lack of transparency, reporting and feedback in the export process.

The Standards contain no process for public feedback of information on animal welfare performance. Furthermore, inadequate reporting requirements mean that little useful data are collected, and these are not available to the people who most need them (e.g. the Livestock Export Standards Advisory Council, LESAC). For example, in Appendices 5.1 and 5.2 of the ASEL, health and welfare issues are limited to sick pen reports and averages for each deck.

Similarly, reportable mortality levels are only provided for species (sheep, goats, cattle, etc.) There is no scope to comment on individual pens or areas, or individual classes of animal. These figures not only need to be collected but fed back to exporters for use in a process of continuous self-improvement.

5. Loopholes in the Standards mean that not all animals are covered.

Animals that have travelled for 14 hours or less during the land transport phase of the export process do not have to be held at registered premises (Standard 2.21). Thus, they are not covered by any of the protections specified in Standard 3, most importantly, there is no obligation for them to be individually assessed for fitness to travel at any stage. Even for animals held at registered premises, once animals have been individually inspected and a leave for loading granted, there is ample opportunity for their condition to deteriorate prior to loading for export, especially given that an eight hour journey time from the registered premises to the port of embarkation is allowed under Standard 3.

There are also a number of serious flaws with the development process for the ASEL including:

1. The LESAC process does not give due consideration to regulation and enforcement of the Standards.

The focus of LESAC is to achieve consensus agreement, which frequently results in confusing, subjective and legally ambiguous statements of requirement rather than clearly worded, measurable standards that are amenable to regulation. This should have been addressed by appointing suitable legal representatives to LESAC (including enforcement agencies and solicitors) or establishing a legal advisory committee to provide advice in a similar way to the Technical Working Group of LESAC.

LESAC is unable to ensure the enforceability of the Standards that it produces, as it has no control over the legislative barriers to enforcement. LESAC reports to the Australian Government Minister for Agriculture, Fisheries and Forestry, and the Standards are referred to under Commonwealth legislation, but many of the Standards developed by LESAC lie outside of this jurisdiction, and LESAC lacks the powers to resolve the jurisdictional issues (including information sharing and legislative change) necessary to ensure the regulation and enforcement of these standards.

2. LESAC is expected to make complex scientific assessments without access to all of the relevant data.

Much of the data relating to livestock export are available only to exporters themselves. This lack of transparency means that livestock export representatives make representations to LESAC regarding data of which the accuracy is impossible to confirm. The majority of ongoing research and development is also being undertaken by the livestock export industry, not independent scientists, with the obvious resulting problems of bias and free access to data. An appropriate example of this problem is the heat stress model developed by LiveCorp; this model is now referenced throughout the Standards yet it has never been independently assessed, is not available for investigation and has not produced any data published in the scientific literature.

3. The composition of the Technical Working Group (TWG) is inadequate to address animal welfare questions.

The TWG was established to further investigate issues of a technical nature arising during LESAC discussions. These issues frequently involve complex decisions directly relating to animal welfare, yet no animal welfare scientists are included on the TWG panel.

While these problems remain unaddressed, there is little hope that the welfare of exported livestock can be adequately protected during any stage of the journey from farm to export port. There is clearly no basis to the claim, frequently made by both the livestock export industry and the Australian Government, that Australian standards which attempt to regulate this trade are effective in ensuring the welfare of exported livestock. Combined with the frequent mistreatment, poor handling and inhumane slaughter of many of these animals in importing countries, the export of livestock remains a significant and seemingly intractable animal welfare issue.

1. Introduction

The export of livestock from Australia for slaughter overseas is a controversial issue. Each year over four million sheep, 600,000 cattle and smaller numbers of goats, deer and buffalo are exported live from Australia to the Middle East, Asia and North Africa. While the livestock export industry claims such exports provide a valuable alternative to the trade in meat products, animal welfare groups oppose the trade as unnecessary and inherently cruel. The death rate associated with livestock export is currently 0.9% for sheep, 0.18% for cattle and 0.45% for goats (Norris & Norman 2007). There is no adequate measure of morbidity (injury and illness).

Although there have been regular exports of livestock from Australia since the 1970s, it was not until the late 1990s that specific guidelines for the transport of livestock for export from Australia were developed. In 1997, the livestock export industry developed its own minimum requirements for the export of cattle, sheep and goats, known as the Australian Livestock Export Standards (ALES; LiveCorp 1997). These standards covered the export process from on-farm selection through to completion of loading at the port of export and formed part of the industry's self-regulated Livestock Export Accreditation Program (LEAP). However, the ALES fell considerably short of the requirements of existing livestock transport guidelines, and furthermore, they had no effective system of external regulation or accountability.

In 2003, 58,000 Australian sheep were stranded for 11 weeks on board the Corno Express after being rejected for unloading in Saudi Arabia. This was the worst of a number of serious incidents that served to highlight the risks to animal welfare inherent in the live export trade. In response to the animal welfare concerns raised by this incident, then federal Minister for Agriculture announced a review into the livestock export industry. This review recommended the development of national standards for livestock export to take into account the processes of sourcing, preparing, assembling and transporting animals for export (Keniry et al. 2003).

In direct response to this recommendation, the Australian Standards for the Export of Livestock (the ASEL) were drawn up in 2004. The Standards cover all aspects of livestock export from initial sourcing of livestock to disembarkation at a foreign port. The Standards came into effect on 1 July 2005 through the passing of the Agriculture, Fisheries and Forestry Legislation Amendment (Export Control) Act 2004, with the requirement that they be implemented by all operators by September 2005 (DAFF 2005). Since their initial development, two further versions of the Standards have been published: version 2 was endorsed in August 2006 and version 2.1 in December 2006 (DAFF 2006a).

The ASEL were developed as a means of ensuring the regulation of an industry that had failed demonstrably to regulate itself. The Standards set minimum requirements that are intended to be enforceable under Australian Commonwealth law. However, there are limits to the Commonwealth's powers to legislate and enforce animal welfare provisions, hence there are practical limitations to the extent to which enforcement of the Standards is possible: the ASEL is referenced under Commonwealth Law, and is enforced by the Australian Quarantine and Inspection Service (AQIS). If the States and Territories do not reference the ASEL under their legislation, as is currently the case, their agencies can enforce their own relevant legislation, such as Prevention of Cruelty to Animals Acts, but not the ASEL itself.

The Australian Position Statement on the Export of Livestock (APS) (DAFF 2006b) is an advisory document that provides an overview and introduction to the ASEL. While the APS was formally endorsed by the Primary Industries Ministerial Council in November 2006, it is not enforceable by law. The APS seeks to define, in a very general sense, the roles and responsibilities of all parties involved in the export process. It does not define which organisations are responsible for regulation and enforcement at the level of individual Standards. For example: Introduction, paragraph 3 states that State and Territory governments are "responsible for ensuring that requirements [under their laws] are met", but there is no further clarification of this role. State and Territory Laws are independent of the Standards, so it is unclear how this role of the States and Territories in implementing their own legislation links in with the Standards. It is also unclear what agencies (other

than AQIS) are empowered to enforce the Standards themselves, or what penalties will apply, and to whom, should they be breached.

The development process for the ASEL and the APS was overseen by the Livestock Export Standards Advisory Committee (LESAC), formed from members of the key stakeholder groups relevant to the livestock export trade (government, primary producers, exporters, land transporters, shipping companies, veterinarians, and the RSPCA). The Standards are under regular review by LESAC and represent a compromise between these key groups. Any queries of a technical nature that arise during discussions are referred to the Technical Working Group (TWG), a subcommittee of LESAC, for further investigation and recommendation. LESAC's formal role is to advise the Federal Minister for Agriculture, who makes all final decisions regarding approval of the Standards. Once the Standards have been approved by the Federal Minister, they are presented to the Primary Industries Ministerial Council for endorsement by relevant State and Territory Ministers.

In 2006, Meat and Livestock Australia (MLA) released a report comparing the ASEL with comparable standards from other livestock-exporting countries around the world (Whan et al. 2006). From this report they concluded that the Australian Standards are superior to other similar standards and do not require immediate or major revision.

As a consequence, the livestock export industry now claims that Australia has world's best-practice standards in terms of their coverage of species and phases of transportation and their capacity to deliver acceptable outcomes when measured against animal welfare indicators.

Given the numbers of animals involved in the livestock export trade, and the controversial nature of that trade, it is important that such claims are properly assessed. This report provides a thorough assessment of the MLA report and a discussion of the flaws in reasoning that have led to these unrealistic claims. A discussion of the major problems with the ASEL in terms of protecting the welfare of exported animals is also included.

2. Analysis of MLA's *World Live Export Standards* report

2.1. Objectives of the MLA report

A research question is not explicitly stated in the *World Livestock Export Standards* report, although the question addressed is: *How does the ASEL compare with standards from other countries in terms of animal welfare?* Project objectives listed on page 9 of the report include;

- obtaining relevant documentation,
- presenting it in a suitable format for comparison,
- developing criteria for comparison,
- identifying points of difference between the various standards, and
- investigating the processes by which the various standards were developed.

The only one of these objectives described clearly in the report is the first; how the standards and other relevant documents included in the analysis were obtained.

In defining their research, the authors chose to limit comparisons to documented standards, but were broad in their definition of a standard to include orders, regulations, codes, directives, and other similar documents. This is highly appropriate given that the regulatory model in place in other countries will not necessarily reflect the situation in Australia. The report places much emphasis on the importance of standards, rather than other means of regulation. It states that “standards alone have the potential to satisfy the expectations of the local constituency”, and that “the existence of standards ... is presumed to be the single best indicator of a strong and effective regulatory environment”. But this is a false premise: the efficacy of the regulatory environment depends on many factors, including the existence of stated (published) requirements (standards, codes, guidelines, regulations, legislation, etc), but also the quality of those requirements both in terms of animal welfare provisions and enforceability, and the systems of dissemination, implementation, auditing and enforcement of these requirements.

As an example, the report presents a table of brief descriptions of the different levels of regulation that currently play a role in governing animal welfare in Australia (p10). The description of “legislation” states that its “effect throughout Australia is to prevent cruelty to animals”. This is misleading and reflects one of the fundamental misunderstandings in the report: what legislation actually does is to formalise minimum requirements and, in some cases, allow prosecution of people who break these requirements, but acts of cruelty still occur, and some are legally permissible. Knowing whether legislation is effective relies on having monitoring and enforcement activities in place. Importantly in the case of the ASEL, the Standards are not formally recognised under State/Territory legislation and as such cannot be enforced by State/Territory bodies.

The table makes a distinction between standards and codes: it states that standards are based on “contemporary knowledge” or “objective criteria coming out of the latest R&D”, whereas codes are “voluntary guidelines developed by consensus and observed to varying degrees”. This distinction is overstated: both standards and codes are typically consensus documents, usually developed by committees of key stakeholders. In the case of the ASEL, the Standards were initially based largely on the industry standards developed during the period of self-regulation (ALES). The objective quality of any industry R&D that has been incorporated into the Standards is unclear as the research has not been carried out transparently, neither the raw data nor models used are publicly available for analysis, and the work has typically not been published independently in peer-reviewed literature. Codes are usually developed by a similar process to the ASEL including using consensus agreement. They make reference to industry best practice, industry research and development and independent scientific research, and they have the added legislative power of being referenced under the prevention of cruelty to animals legislation of most States/Territories (although the extent to which Codes can be used as a defence against the legislation varies between States and Territories).

Any suggestion that the ASEL is prescriptive in terms of required outcomes is an exaggeration. The introductory sections preceding each of the Standards do define outcomes, but these are not covered by the legislation, hence are not enforceable, and in any case are generally in the form of motherhood statements. Examples of such statements include: “Livestock sourced for export that become sick or injured during on-farm preparation must be excluded from export, and arrangements must be made for their prompt and humane handling and care” (Standard 1); “The health and welfare needs of the livestock are appropriately catered for in a secure environment”, “Livestock rejected for export are managed humanely” (Standard 3); “Onboard care and management of the livestock is adequate to maintain their health and welfare throughout the voyage” (Standard 5).

This raises the question of what method of regulation is the most appropriate and effective. It is unclear why the authors believe that the Australian constituency require Standards with prescribed outcomes for their expectations to be satisfied, and why they believe that other regulatory mechanisms, such as Prevention of Cruelty to Animals legislation linked with Model Codes of Practice for the Welfare of Animals can not also fulfil community expectations.

It would have been useful to extend the focus of the research to include a comparison of the ASEL with the previous Australian industry standards (ALES), an analysis of the impact that the introduction of the ASEL has had on the livestock export trade, both in terms of economics and animal welfare outcomes, and an analysis of the extent to which the industry is being effectively regulated by the ASEL, including a discussion of monitoring, auditing and enforcement. The authors identify in section 2.5 of the report that measurements of compliance are problematic, particularly for foreign standards, nevertheless this does not rule out an assessment of enforceability, particularly as it applies to the ASEL.

2.2. Methodology

2.2.1. Sources of bias

The *World Livestock Export Standards* report contains several value judgements in its approach. These include the statement that “legal stipulations must be careful not to crowd-out higher-order forms of regulation such as quality assurance and voluntary commitment by operators to good outcomes” (p10). The impression given is that while a regulatory framework may have relevance at the current time, it is not the optimal mechanism by which to ensure animal welfare in the livestock export industry. This argument is difficult to support given the findings of the Commonwealth Government-commissioned Livestock Export Review (Keniry et al. 2003), into what was then a self-regulated industry, and is further undermined by the claim that standards that are not seen as cost-effective will have poor uptake rates (p12). However, this position has been allowed to inform the experimental design and is a major source of bias.

To give an example: when making comparisons of efficacy between standards, the report indicates that that standards were regarded as more effective if they were ‘well-conceived and incorporate higher-level management tools’ (p13). Exactly what it meant by the term ‘well-conceived’ is not explained, and it is not the only subjective term used in the analysis (see below). The authors acknowledge that the scores given for each standard are a judgement call based on their scrutiny of the document. The reader must rely on this judgment alone since no details of the content of individual standards is provided. It would have been far more appropriate to base an assessment of efficacy on compliance, monitoring, legal enforceability and outcomes

2.2.2. Data collection methods

For their analysis the authors obtained written standards pertaining to livestock export from various nations. Only countries exporting sheep, goats and/or cattle were included in the analysis. Praise for the ASEL in terms of the breadth of species covered (p3 and p37) is unjustified given the exclusion of international standards pertaining to species other than sheep, goats and cattle from the analysis. The OIE livestock transport standards (OIE 2007) cover a broader range of species than the ASEL, including pigs, equines (and in the case of land-transport, poultry) in addition to all of the species covered by the ASEL.

As mentioned above, a broad definition of standard was used, including orders, regulations, codes, directives, etc. It is difficult to assess whether the documents included by the authors for each of the nations are the most relevant. Given the reliance placed on internet searches as the mechanism for obtaining documents, it is possible that other relevant documents were missed. It should be noted that a search was made for material “developed specifically for the purposes of exporting livestock” (page 24 of the report), which would exclude materials developed for another purpose but still relevant to the livestock export industry (such as land transport codes, etc). A more thorough approach would have been to seek advice from representatives of the livestock export industry and the relevant government departments in each nation. Some attempt at direct contact was made, but it was not consistent across all nations.

The argument that the web is the most likely place to find a country’s livestock export standards because efficacy depends on accessibility to exporters and their import markets, is unsubstantiated and ignores regional differences in infrastructure and the uptake of internet technology. Even when standards are available online they can be difficult to locate using internet search protocols unless the actual wording of the document title is known and a relevant government or other database site identified.

2.2.3. Methods for comparing standards

The *World Livestock Export Standards* project aimed to make comparisons between the animal welfare provisions of various standards around the world. Project objectives for the study were (1) to present relevant documentation that had been obtained in a suitable format for comparison then (2) to develop criteria for comparison. Scientifically speaking, it is desirable to develop a research question and plans of analysis before collecting data in order to avoid bias. It is also necessary to provide enough detail regarding the methods and analysis to allow the work to be repeated by other independent researchers. The level of detail provided in the *World Livestock Export Standards* report regarding both the rationale for experimental design and the methods of analysis does not allow this. Furthermore, the description of the methodology is inconsistent with the methods used.

The ASEL is described as a benchmark against which the other standards are compared, yet although overseas standards are compared alongside each of the Australian Standards, the scoring system used is not a benchmarking system. Instead of being ranked as better or worse than the ASEL, all standards are given subjective scores of 1-3, where 1 = lax, 2 = okay and 3 = strict, and a description as “specific” or “general”. The meanings of these terms are not clearly defined, and the ASEL ranks variably across the comparison criteria (i.e. it is not always scored as okay with other standards scored as lax, equivalent, or strict in comparison). This method of scoring introduces an unnecessary degree of subjectivity in contrast to a simpler comparison-based benchmarking method.

The international livestock transport guidelines developed by the OIE were rejected as a benchmark by the authors on the grounds that their applicability to individual situations may vary from nation to nation. The same argument could apply equally to the ASEL. There is also an inconsistency with the results: the authors’ argument that the OIE guidelines are outcomes-based in comparison to the ASEL is in conflict with the actual comparison results presented in the report, which ranked the ASEL as being as outcome focussed as the OIE guidelines (both are scored overall as “specific” and scored 3 (= strict) in terms of outcomes-focus). This raises the question of how this and other variables were assessed.

In making their comparisons the authors make a general comparison between standards, as well as individual comparisons to Standards 1 to 6 of the ASEL. The variables chosen by the authors for these comparisons of the standards are shown in Tables 1 and 2. How these comparison criteria were decided on is not discussed; the only justification given for the choices is that they were considered as the “most appropriate”.

In terms of the general comparison, in many cases it is unclear how scoring of these criteria was carried out: Some are not obviously measurable at all, such as the “risk management” criterion (the ASEL for example, does not explicitly define the role of a risk management process in its development). Similarly, evidence that the Standards are scientifically based, a part of the “detailed

standards” criterion, is difficult to assess from completed documents and subjective given that the quality of science that is regarded as acceptable may vary (e.g. industry R&D vs. independent scientific research). For the “outcomes focus” criterion it is desirable to know whether it was the presence of required outcomes per se or also the quality of those outcomes that was assessed in this analysis. Several other points are unclear including;

- how the authors differentiated between “remedial actions”, “risk assessment” and “contingency planning”;
- why customer relations was included as a factor in an animal welfare assessment (under the contingency planning criterion);
- why the authors anticipated that the extent of industry R&D programs would be apparent from published standards;
- why the definition of auditing was based on assessment performance records alone; and
- why the transparency of the reporting system was considered important, but the adequacy of that system (in terms of what was required to be reported) was not.
- how the authors assessed the legal status of the standards and the extent to which this “reflects government policy”.

Some of the criteria chosen are potentially conflicting, for example; an “outcome focus” may result in less “detailed standards” if it attempts to provide a more generalised approach, even though both factors are rated positively by the authors. RSPCA Australia considers that there are several criteria that would have been relevant to a general comparison of standards, but were not included in the assessment. These are listed in **Table 1**, alongside the criteria that were used.

Table 1: Criteria for general comparison of differences between standards

Criteria used	Criteria overlooked
outcome focus	overall quality of welfare provisions, e.g. with reference to the Five Freedoms:
risk management	- freedom from hunger and thirst;
assignment of responsibilities	- freedom from discomfort;
detailed standards	- freedom from pain, injury or disease;
training and key competencies	- freedom to express normal behaviour;
remedial actions	- freedom from fear and distress
supporting legislation	ease of interpretation
contingency planning enforceability	disease management strategies
R&D program	exclusion criteria (including exclusion of animals unused to human handling)
licensing and accreditation	reportable mortality/morbidity outcomes
transparent reporting system	permitted length of travel
audit program	penalties for breach of Standards
	enforceability

The ASEL is comprised of six Standards, each covering a different stage of the export process, and these are used as the basis for the other comparisons between standards in the *World Livestock Export Standards* report. The existence of free-standing standards for the export of livestock (separate from other animal welfare standards) is regarded as a positive by the authors, but no justification is given for this position. It could be reasonably argued that it is unnecessary duplication for independent standards pertaining to livestock export to exist when comparable standards already exist for a given part of the livestock export chain (e.g. the land transport phase, feedlots, etc). If the international livestock export standards used in this analysis did not address areas already covered elsewhere, then this raises questions about the extent and validity of the comparisons made with the ASEL. Importantly, the absence of a particular standard, as indicated by a cross in the comparison tables, may in fact reflect the inability of the authors to find the relevant documentation using their internet-based search strategy (this was touched upon in the report).

As with the general comparison, criteria were chosen for comparison between each Standard of the ASEL and the relevant sections of the other identified standards. The justification for the criteria chosen for these comparisons, the scope of those criteria, and the way in which they were assessed are not discussed. Many criteria are obscure in their meaning; for example it is difficult to know how "on farm preparation" was interpreted and how the scores of 1-3 were applied to this criterion. In one case a criterion is referred to in the text that is not included in the comparison tables at all ("rejection criteria" as a criterion of Standard 3, p24). Overall, in our view the choice of comparison criteria is insufficient in scope. Other criteria that would have been relevant under the various Standards are shown in **Table 2**.

Table 2: Criteria for comparison of Standard-by-Standard differences

Standard	Criteria used	Criteria overlooked
1 – Comparison of sourcing and on farm preparation	<ul style="list-style-type: none"> Identification and traceback Selection criteria (fitness to travel – health and disease) Selection criteria (fitness to travel – body condition) Selection criteria (fitness to travel – age, wool length, horn length, pregnancy, breed type etc) On farm preparation 	<ul style="list-style-type: none"> Handling (mustering, loading) Training competence of handlers Provision of shelter Appropriate provision of feed/water
2- Comparison of land transport	<ul style="list-style-type: none"> Travel plan requirements Vehicle design and construction requirements Loading and unloading facility design and construction Loading density restrictions Maximum curfew trucking and water deprivation times Fitness to travel 	<ul style="list-style-type: none"> Requirement for individual inspection Maximum allowable travel time Lairage provisions Competencies of handlers and truck driver

3 – Comparison of management in registered premises	<ul style="list-style-type: none"> Premise registration requirements and licensing Premise design and construction requirements Premise and livestock management Requirement for preembarkation inspection Requirement for isolation and quarantine Requirement for documentation and/or reporting 	<ul style="list-style-type: none"> Feed and water provision Assessment of fitness for travel Adjustment to shipboard feeding regime (e.g. pellets) Veterinary provisions Air quality Training/competence of staff
4- Comparison of vessel preparation and loading	<ul style="list-style-type: none"> Vessel licensing, accreditation and/or approval requirements Vessel design and construction Load plan requirements Space allowance Ration specifications and provisioning 	<ul style="list-style-type: none"> Handling Training/competence of handlers Requirement for individual inspection Appropriate provision of feed/water Appropriate grouping of animals Veterinary provisions Air quality
5- Comparison on onboard management	<ul style="list-style-type: none"> Livestock supervision and husbandry requirements Feeding and watering requirements Bedding management Segregation and penning requirements Reporting requirements Incident notification 	<ul style="list-style-type: none"> Requirement for a registered veterinarian Training/competencies of animal handlers / Stockpersons Air quality Waste disposal/hygiene

6- Comparison of air transport of livestock	Selection criteria (fitness to travel – health and disease and other) Space allowance requirements Handling instructions Container requirements	Requirement for individual inspection Requirement for animal Handler/stockperson Training competencies of animal handlers/stockpersons Access to veterinary care Veterinary provisions Maximum allowable travel time Lairage stopover provisions Pressurisation/temperature requirements Loading provisions (including time of day and provision of shelter) Appropriate provision/withholding of feed/water
All Standards		Contingency planning Handling of sick/injured/excluded animals Disease control measures Overall quality of animal welfare provisions Monitoring Reporting Enforceability Penalties for breach of Standards

2.3 Results of comparison of standards

The authors present their comparisons between world livestock export standards as a series of tables. For each of the chosen criteria, the countries are subjectively scored from 1-3 (1 = lax, 2 = okay, and 3 = strict), and as “general” or “specific”. No detailed comparisons are presented either in the tables themselves or the accompanying text. As pointed out above, although the report describes itself as a benchmarking study, this is not a benchmarking system as it does not score standards as better or worse than ASEL (indeed the scores for ASEL vary depending on the standard).

The authors state “the score assigned to a given country is a judgement call ... based on thorough scrutiny of the documentation”. That the ASEL has not been scored as lax (1) on any criterion of any standard but has been scored as strict (3) for the majority, calls into question the objectivity of the authors, particularly given the lack of detail provided on the scoring method. Several individual scores given to the ASEL by the authors are difficult to justify (Table 3).

It is important to note that, by virtue of the study design (and its attempt to use the ASEL as a benchmark), the ASEL is never assessed as lacking in any Standard or criterion even though other standards may cover areas not addressed in the ASEL.

A list of the scores awarded to the ASEL in the *World Livestock Export Standards* report, and a discussion of the validity of these values is provided in Table 3.

Table 3: Assessment of the scores awarded to ASEL in the *World Livestock Export Standards* report.

Comparison criteria (used in the report)	Score awarded to the ASEL	Comments on the validity of this score/comparison
General comparison		
Outcome focus	Specific 3 (strict)	This is not a valid score: The ASEL have few specified measurable outcomes. The outcomes in the introduction to each Standard are not legally required and consist primarily of broad statements of intention rather than measurable outcomes.
Risk Management	Specific 3 (strict)	There is little evidence within the Standards themselves of what (if any) risk assessment was undertaken as a basis for their development. The only requirements for risk management prescribed within the ASEL are the use of an agreed heat stress risk assessment model (the model in use has not been independently validated), subjective assessment of the risk of leg injury in camels, and contingency planning as described below. The supporting legislation requires that risk management is included as part of the operations and governance manual for a livestock export company applying for a licence, but is not prescriptive about the kind of risks addressed.
Assignment of responsibilities	Specific 3 (strict)	While the assignment of overall responsibility for livestock is specified in the ASEL, specific responsibilities are not spelled out in the same detail as the OIE guidelines (OIE 2007). It is unclear who other than AQIS is responsible for enforcing individual Standards as to date no State or Territory has enacted appropriate legislation. Potential conflicts in responsibility, e.g. between an on-board vet and the ship’s captain need to be clarified.
Detailed standards	Specific 3 (strict)	“Detailed” is a subjective term and the score of 3 is misleading. While Standards are generally very detailed, there are several exemption clauses that undermine otherwise detailed standards by allowing exemptions at the discretion of AQIS, with no restrictions and no transparency in the exemption process.
Training and key competencies	Specific 3 (strict)	In several areas of the ASEL these are undefined and compare poorly with the provisions on training/competency set out by the OIE guidelines (OIE 2007).
Remedial actions	Specific 3 (strict)	The only remedial action specified in the ASEL is drafting out.

Supporting legislation	Specific 3 (strict)	The supporting legislation is one of the most significant barriers to the proper enforcement of the ASEL. It is limited to Commonwealth Law enforceable by the Australian Quarantine and Inspection Service, rendering large sections of the Standards unenforceable.
Contingency planning	Specific 3 (strict)	Contingency planning is only required in the following specific circumstances; -as part of a travel plan for land journeys greater than 8 hours or greater than 2 hours if interstate -to ensure the supply of adequate potable water in registered premises -to ensure an adequate supply of both feed and water onboard export vessels -as part of the vessel loading plan -and for aircraft as part of a consignment risk management plan including in the case of unavailability of the aircraft, mechanical breakdown or rejection of the consignment by the overseas market. It is problematic that the latter conditions do not apply to sea transport as well as air transport given Australia's previous experience of rejection of a consignment and consequent high mortality of stock (Keniry et al. 2003). It is possible to envisage several contingencies that fall outside of the above parameters, including but not limited to; motor vehicle accidents, outbreaks of disease, and exposure to extreme climatic conditions.
R&D program	Evident	An R&D program was scored as evident for the ASEL but in no other set of standards; why it was anticipated that unambiguous evidence of an R&D program would be specified in any Standards is unclear; a requirement for an "R&D program" is not specified in the ASEL.
Licensing and accreditation	Specific 3 (strict)	Export licences are required for the export of livestock from Australia. Accreditation is required in some situations (e.g. accredited stockpersons), but not others. Although the term competent is used frequently in the ASEL it is rarely defined. This compares poorly with the OIE guidelines (OIE 2007).
Transparent reporting system	Specific 3 (strict)	The ASEL requires reporting directly to AQIS, any further release of the data is then at their discretion. In the past raw morbidity/mortality data has neither been available to LESAC to assist in their assessments, to industry for a process of continuous self-improvement, nor to the public for the sake of transparency.
Audit program	Specific 2 (OK)	Auditing is not a requirement of the ASEL, nor is it evident in practice.

Standard 1 – Sourcing and on-farm preparation		
Identification and traceback	Specific 3 (strict)	In the ASEL identification and traceback is required for consignments but not for individual animals.
Selection criteria (fitness to travel – health and disease)	Specific 3 (strict)	The "Selection criteria" in the ASEL, while detailed and specific, leave scope for exemption by the regulator (with no guidance on grounds for exemption and no transparency in the process), and in some cases are based on computer modelling with a program that is not publicly available and has not been independently assessed.
Selection criteria (fitness to travel – body condition)	Specific 3 (strict)	
Selection criteria (fitness to travel – age, wool length, horn length, pregnancy, breed type, etc)	Specific 3 (strict)	
On farm preparation	General 2 (OK)	What is covered by the term "on farm preparation" and how this was assessed is unclear. It should be noted that this aspect of the Standards is effectively unenforceable until animals have entered the export process.
Standard 2 – land transport		
Travel plan requirements	General 2 (OK)	Plans are not required in all cases; animals can travel on journeys of up to 8 hours without a travel plan, thus with no specified contingency plan in case of unforeseen events.
Vehicle design and construction requirements	General 2 (OK)	Vehicle design and construction requirements are brief but appropriate and there is a requirement to meet other State/Territory requirements and relevant Codes.
Loading and unloading facility design and construction	General 2 (OK)	Design and construction requirements for Loading facilities are covered by a single sentence. While those for Registered premises are covered in detail under Standard 3 (Registered premises) (and by a brief sentence in Standard 2 (Land transport) other unloading facilities, such as lairage points or ports, are not covered by any Standard. It should be noted that the ASEL does not require that shelter be provided at the point of loading, and specifically does not require provision of shade to camels during lairage.
Loading density restrictions	General 2 (OK)	Loading densities are clearly specified for most species, but not deer. There is also a general requirement to comply with other relevant State/Territory requirements and relevant Codes.
Maximum curfew trucking and water deprivation times	General 2 (OK)	Maximum transport times and withholding periods are clearly specified for most species, but not deer. There is also a general requirement to comply with other relevant State/Territory requirements and relevant Codes.
Fitness to travel	General 2 (OK)	There is a requirement that fitness to travel be regularly assessed, but no detail as to what is regarded as fit (this is addressed in other Standards).

Standard 3 – management in registered premises		
Premise registration and licensing requirements	Specific 3 (strict)	Other Australian legislation requires premises to be registered. Registration and licensing requirements are not covered by the ASEL
Premise design and construction requirements	Specific 3 (strict)	Design and construction requirements for registered premises are detailed. However, there is no requirement for shelter except in extreme climatic conditions (e.g. it could be interpreted that it is acceptable not to provide shade in temperatures of 40 degrees Celsius if it can be argued that these conditions are typical of the area).
Premise and livestock management	Specific 2 (OK)	The title of Standard 3 is “Management of livestock in registered premises”, so every point in it can be argued to be a specific management requirement. The only point that refers directly to management practices is S3.1 “The operator of registered premises must employ sufficient appropriately trained staff for the effective day-to-day operation of the premises and management of the livestock”.
Requirement for pre-embarkation inspection	Specific 2 (OK)	This provision is undermined by the allowance of a post-inspection journey of up to 8 hours (or more with an AQIS exemption) to the port of embarkation (and an unspecified maximum journey time for camels from northern ports).
Requirement for isolation and quarantine	Specific 3 (strict)	Isolation and quarantine requirements are strict as they relate to importing country requirements, or mixing with non-export livestock. But there is no requirement for the isolation of animals recognised as sick during their stay in registered premises, which risks the future health of the entire consignment.
Requirement for documentation and/or reporting	Specific 2 (OK)	There are requirements for the documentation of daily health and welfare checks as well as the details of rejected animals. The former must be kept for two years, but no detail is provided regarding the information that must be included. No time-period is specified for the latter. It would be more appropriate for health checks to be carried out and documented by a registered veterinarian than a “competent animal handler” as specified.
Standard 4 – vessel preparation and loading		
Vessel licensing, accreditation and/or approval requirements	Specific 3 (strict)	The ASEL requires vessels to meet the existing requirements for sea transport of livestock, by obtaining a valid Australian Certificate for the Carriage of Livestock (ACCL) from the Australian Maritime Safety Authority (AMSA.). There are no additional requirements, and no scope for vessel-specific requirements.
Vessel design and construction	Specific 3 (strict)	These matters are not addressed in Standard 4 “Vessel preparation and loading”.
Load plan requirements	Specific 3 (strict)	Detailed loading plans are required by the ASEL, and the content of these is clearly specified. There is a need to define competence as it related to animal handlers and other staff.

Space allowance	Specific 3 (strict)	Space allowances are specified for different species and classes of animal, but there is scope for exemption at the discretion of AQIS (and no transparency in the exemption process).
Ration specifications and provisioning	Specific 3 (strict)	The requirement for feed and water provisions (anticipated needs plus the lesser of either 25% or 3 days supplies) is insufficient in the case of unexpected delays. Animals were stranded aboard the MV Cormo Express for 11 weeks in 2003 (Keniry et al 2003). A relatively minor incident (e.g. bad weather) could easily result in greater than a three-day delay given the distances involved. The allowance of up to a 12 hour period before feed and water provision, on top of prior water deprivation time, is concerning.
Standard 5 – onboard management		
Livestock supervision and husbandry requirements	Specific 3 (strict)	There is no current requirement for a veterinarian except at the discretion of the relevant government agency, a situation that is in stark contradiction to the recommendations of the Keniry Review into Australian livestock export (Keniry et al. 2003).
Feeding and watering requirements	Specific 3 (strict)	Water may be withheld for up to 12 hours after loading (Standard 4), on top of a prior maximal water deprivation time (Standard 2). While it is specified that water must be of a quality to maintain good health the only requirement for feed is that it meets the animals’ energy requirements.
Bedding management	Specific 3 (strict)	Bedding is not a requirement for cattle on all journeys, and is not required to be provided to sheep or goats in any case The actual wording used in Standard 5 of the ASEL “When bedding is used, it must be maintained in adequate condition to ensure the health and welfare of the livestock” is neither detailed nor prescriptive.
Segregation and penning requirements	Specific 3 (strict)	Segregation and penning are not covered by this Standard. The only requirements are: (1) That animals are checked to ensure they have been loaded according to the loading plan. (2) That stocking densities are checked “regularly”. (3) That sick animals are moved to a separate pen “if required”. The latter two requirements are very subjective.
Reporting requirements	Specific 3 (strict)	A score of 3=strict for “reporting requirements” is unwarranted given (1) insufficiencies in the data collected, which is not broken down by class of animal and (2) a lack of transparency in the reporting process. Daily reports are only required for voyages of 10 days or more. Unless a veterinarian is required by AQIS, reports, including an assessment of health and welfare, are written by the attending stockperson rather than a veterinarian.

Incident notification	Specific 3 (strict)	There is a lack of transparency in the reporting process, as well as a lack of detail in reporting. It is not specified what information must be included in an incident report except for incidents with reportable mortality levels, where the detail required is minimal. The lack of feedback to the industry impedes the process of continuous improvement. For incidents involving reportable mortality levels: Though an assessment of “factors that may have contributed to the deaths” must be provided in the incident report, there is no requirement that this assessment be made by a veterinarian (as there is no absolute requirement for onboard vets).
Standard 6 – air transport of livestock		
Selection criteria (Fitness to travel – health and disease and other)	Specific 3 (strict)	The section dealing with rejection criteria (S6.4) refers only to on-farm inspection prior to transport. The requirement to check livestock prior to departure and during transport to ensure that they remain “fit to travel” does not provide a definition of fitness.
Space allowance requirements	Specific 3 (strict)	The stocking densities for all species are clearly specified and based on the IATA recommendations. However, there are no specifications for pregnant animals, and no requirement to avoid mixing dissimilar animals in the same container.
Handling instructions	Specific 3 (strict)	There are few handling instructions, and most of these are subjective e.g. “Feed and water must be offered to all livestock for export by air while in transit if climatic conditions, species and class of livestock and total journey time warrant”.
Container requirements	Specific 3 (strict)	The only requirement regarding containers is that no part of a standing animal should touch overhead structures. There are no requirements at all regarding size, materials, construction, etc.

2.4. Interpretation of results

It is difficult to assess the results of any study where the basic study design is faulty. In the case of the *World Livestock Export Standards* report, the flaws in the chosen study design (discussed above), along with the inconsistencies in scoring identified in **Table 3**, cast considerable doubt over the credibility of the results. While the report uses a scientific framework of data collection, analysis and discussion, it does not adopt a standard scientific approach to the content of its discussion. A systematic approach would have included a discussion of the limitations of the study design and data analysis as well as a comparison of the results with other relevant studies and a discussion of their implications, with some scope for speculation and a discussion of directions for future research. However, the actual report deviates significantly from this pattern. There is little discussion of the limitations of the data, study design and analysis, or interpretation, except as it applies to the use of internet searches as the basis for obtaining standards (Sections 3.1 and 4 of the report). There is no comparison between the findings of this report and other relevant literature. In fact, the results are barely discussed in favour of broad statements about the livestock export trade in general. In many cases, material is included that is overtly biased or potentially misleading, the statements made are unsupported, and there is a lack of clear discrimination between what is speculation and what is a description of the actual current situation.

2.4.1. Bias in favour of exporters

Under the heading “outcomes designed to achieve” the authors state that “Standards can be viewed as a tangible and formal framework for advancing the cause of animal welfare” and that greater credence should be given to “those parties who have made a large material investment in the industry and generate secondary benefits such as employment”. It is unclear how capital expenditure and employment generation can be linked to an understanding of or a concern for animal welfare, and the authors provide no argument to support this assertion. They also fail to provide any evidence as to the scale of the secondary benefits that they refer to. Previous reports have indicated that the livestock export industry has had a negative impact on employment figures in some sections of the Australian workforce (Heilbron & Larkin 2000). If, as the above statement suggests, the interpretation of “outcome focus” in the general comparisons between Standards was based on the principle of giving greater consideration to the opinions of those engaged in the livestock export trade than to other stakeholders or to scientific evidence, this raises significant concerns about inherent bias in the interpretation of both this and the other variables included in the tables.

A bias towards the viewpoint of livestock exporters as a basis for standards of welfare is contradicted by other statements within the document indicating that welfare measures are unlikely to be adopted by operators if considered expensive to implement, and that contemporary welfare outcomes are seen as a problem and a barrier to trade (Sections 1.2 and 2.4). It is also problematic given the failure of self-regulation in the livestock export industry that was identified in the Keniry report (Keniry et al. 2003). The description of Standards as “a defence for the trade when it comes under fire from minority interests” is also concerning in that it portrays any party that brings a complaint against an aspect of livestock export as a minority to be opposed. In this section the RSPCA is described as a “lobby group”, it should be noted that the RSPCA plays a direct role in the enforcement of Australian animal cruelty legislation as well as being the key Australian animal welfare stakeholder. RSPCA Australia maintains an active scientific section and is generally regarded as highly credible in the field of animal welfare science.

2.4.2. Outcomes-based verification

Compliance with the Standards is discussed in Sections 2.5 and 5.9.5. The former states that no attempt was made by the authors to assess compliance, that published standards should be associated with positive outcomes, and that auditing, monitoring and the use of penalties are “measures that can be used to encourage compliance”. The latter section includes the statement “Monitoring and auditing, however, are resource-hungry activities and difficult to justify in terms of cost effectiveness” and calls for an outcomes-based approach to verification. No discussion is provided regarding the actual or perceived costs and benefits involved in auditing or monitoring; given that the intention of the ASEL is to ensure an adequate standard of animal welfare it is to be hoped that monetary concerns are not being given undue weight in this comparison.

In terms of the proposed alternative, there is no broad agreement regarding measurable outcomes of animal welfare. Current measurements are largely limited to total mortality figures at the end of the export process, whereas outcomes-based Standards would require agreed outcome measures for every step of the export process: few such measures currently exist. Importantly, such an approach would require both measurable indicators of good and bad animal welfare outcomes, or a situation could arise where problems were only recognised after they had already occurred and where they were substantial enough to cause a measurable change in one of the chosen outcome variables. The statement “our own experience suggests it will be possible on occasions to achieve satisfactory outcomes despite non-compliance to one or more aspects of a standard” is deeply concerning. It implies that existing Standards may not be being adhered to, assumes that the authors’ subjective opinions are an adequate measure of the acceptability of outcomes, and fails to recognise the limitations of an outcomes-based approach. The statement “At critical points along the export chain, it is possible to use quality assurance and statutory declarations to achieve a high level of compliance” is not supported by data, nor do the authors explain what is encompassed by the phrase “critical points”. The description of such a system as “sophisticated” is a value judgement and the suggestion that it be progressively implemented is given no justification by the authors. The limitations of such a system, such as difficulties in verifying declarations (e.g. a declaration of total time off water), are not discussed.

[2.4.3. Future directions](#)

Section 5.10 (Inconsistencies and knowledge gaps) addresses inconsistencies between identified Standards that are perceived by the authors to be “commercially significant”. It would have been more appropriate for this section to be couched in terms of animal welfare implications. For example, the authors imply a link between the provision of water on transport vehicles and the spread of salmonellosis, but provide no argument or data to support this. They state that provision of water would be expensive and could be seen as “a measure that adds costs without offering any offsetting productivity gain”, but do not discuss the costs involved or the implications for animal welfare (which could be substantial given the suggestion of added disease risk made by the authors). Furthermore, it is unclear why the authors perceive that requirements under minimum animal welfare Standards should provide any productivity gains, given that their purpose is to ensure minimum animal welfare provisions. In the same section, the authors pre-empt the findings of future research into trucking, curfew and water deprivation times, by suggesting that variations in trucking times will not affect welfare outcomes. They suggest that an outcomes-based approach would be more appropriate than fixed maximum travel times, although the limitations of this approach are not discussed (see above).

In discussing heat stress, the authors argue that Australia “has a better understanding of heat stress than most other countries” because reference is made to relative humidity and wet-bulb temperatures in the ASEL. However it should be noted that the ASEL requires only the averages for each deck per day, not maximum values, to be recorded. The Australian heat stress model to which reference is made in the ASEL is described as “clearly the most developed when it comes to considering heat impact and stress”. The model that is currently in use was developed by the Australian livestock export industry, has not been independently validated, is not publicly available for scrutiny, has not been published in a peer-reviewed scientific publication and is therefore of unknown quality. The authors state “steps are underway to apply the same methodology to other areas of concern such as the salmonellae/persistent inanition syndrome”. Given the lack of transparency surrounding the development and application of the existing heat stress model, it is difficult to estimate the impact that similar models are likely to have on animal welfare. That the output of the heat stress risk assessment is predicted mortality, suggests that any impacts on welfare will be similarly coarse.

The last point raised in this section of the report is that New Zealand standards allow vessel specific conditions in recognition of variation between ships. RSPCA Australia has called for vessel-specific conditions and reporting, in addition to general Standards, for the past nine years (RSPCA Australia 1998). Some discussion of why such a discrepancy exists between Australian and New Zealand standards would have been appropriate here.

[2.4.4. Development of standards](#)

Section 5.11 (Methods used to develop standards) contains a confusing mixture of speculation regarding an idealised process for developing standards, as identified by the authors, and descriptions of elements of the current Australian livestock export process. For example; the authors describe the current requirements for application for a livestock export licence under the supporting legislation, and the procedures followed by AQIS. It is not made clear in the text which parts of this process are legally required and which are at the discretion of AQIS. For example while it is stated “an on-board veterinarian will be required for journeys longer than 10 days” no such requirement is specified in the ASEL; the requirement for a veterinarian is at the discretion of AQIS. Similarly, a “declaration of pregnancy status based on detailed ultrasound foetal measurements” is not a requirement of the ASEL in most cases.

In the development of standards, as with other sections of the document, an outcomes-based approach is promoted but there is no discussion of the limitations or disadvantages of such an approach. Competency, training and accreditation are recognised as important, but there is little discussion of how competence should be defined. The authors state “proof of compliance is likely to rely upon either quality assurance declarations or ongoing audit of outcomes with the audits positioned at critical control points”, but they provide no argument in support of this position, nor do they identify or discuss the identification of critical control points. There is no discussion of

penalties for non-compliance. In terms of risk, discussion centres on the use of causal webs for risk management, but the development of causal webs and their application to standards development is not discussed. Given the reliance of this method on measurable causes and effects, the paucity of agreed animal welfare outcome measures should have been discussed here.

The authors emphasise the importance of research and development, and transparent reporting, in assisting the ongoing improvement of standards. However, they do not discuss this within the context of the ASEL. A lack of transparency is one of the major problems with the ASEL and the LESAC process and is discussed in detail below.

[2.5. Conclusions of the MLA report](#)

The major conclusion of the *World Livestock Export Standards* report is “that there are no formal systems in place in other countries that would add significantly to the effectiveness of the Australian livestock export standards and from this point of view, our standards should be considered ‘high quality’ and not requiring immediate or drastic revision”. This assertion is based on four principles:

1. No features were identified in other countries’ standards that would add significantly to the ASEL,
2. the ASEL has free-standing Standards for each phase of the export chain,
3. the ASEL has already been revised multiple times, and
4. the ASEL is developed by “government officers with a detailed knowledge of the industry, supplemented by consultations with operators and independent experts”.

In response to these points:

1. On the basis of the comparison tables discussed above, the authors of the report determined that the ASEL is of high quality and does not require short-term revision. Setting the validity of this assessment aside, this is a flawed argument; for one set of standards to be superior to others does not necessarily imply that they are of good quality, merely that the quality of comparators is poorer. Even for standards that are of high quality (ie with measurably high animal welfare outcomes), a lack of comparable standards does not rule out scope for improvement. In this case, there are significant concerns regarding both the comparison terms chosen, and the method of scoring used, that undermine the credibility of the data presented. Even so, in some cases the ASEL has been scored as 2 (where 1= lax, 2 = okay and 3 = strict), while other Standards received a score of 3. In particular, in the land transport section, the ASEL was scored as 2 for every criterion; thus an entire Standard was identified as lacking in comparison with standards including those of New Zealand, Great Britain and the OIE. Clearly there is therefore scope for short-term revision. Furthermore, while not all countries export livestock, they may still have legislation relevant to some stages of the process, e.g. land transport, that might have provided opportunities for improvements to the ASEL. That was not addressed in this report.
2. The reasons for the authors’ preference for free-standing Standards for each phase of the livestock export process are not discussed. An important disadvantage of this approach is the lack of any overarching Standards regarding issues such as feed and water deprivation. Thus, there are no overall maximum feed and water deprivation times, despite the potential for allowable deprivation periods to accumulate across phases covered by separate Standards. Similarly, there is no overall requirement for animals to be individually inspected prior to export, because not all animals are required to enter registered premises, and the requirement for individual inspection is one of the provisions of Standard 3. This lack of basic requirements, independent of transport phase, has the potential to result in significant adverse effects on animal welfare. Other problems with this approach include the introduction of repetition between Standards (such as the exclusion criteria in the ASEL), inconsistencies between Standards, and repetition and/or inconsistencies between Standards and other codes, regulations, etc. already pertaining to areas relevant to the livestock export process (e.g. land-transport).

3. At the time of writing, two further revisions of the ASEL have been produced (versions 2 and 2.1) since the Standards were first published in July 2005. That the ASEL has been revised multiple times is more an argument for continued revision than against it, as it highlights the frequency with which revision has been deemed necessary over the three years since the ASEL was initially developed. The need for ongoing revision of the ASEL is further supported by the statement made in the Executive Summary, that these revisions reflect “advances in knowledge and understanding of animal welfare and changes in community expectations”: There is no reason to expect that such advances and changes in community expectation will suddenly cease.
4. The development process for the ASEL above and the flaws with this process are discussed in detail elsewhere in this report. In short, the LESAC process is one of stakeholder consultation (with the emphasis on government and industry representation) and negotiated consensus agreement. This does not necessarily imply optimal animal welfare outcomes or preclude a need for improvement.

Australia is described as having “world-best livestock export standards in terms of coverage (of species and phases of transportation) and capacity to deliver acceptable outcomes (measured against animal welfare indicators)”. These extreme claims are not substantiated by the data presented in the report. In terms of coverage, there is no mention of the number of species covered by the Standards as a criterion for comparison, again raising concerns regarding the lack of detail provided in the Methods and Results sections of the report. The tables provided indicate that international standards were sought for the export of sheep, goats and cattle, but not other species, so the relevance of scope of standards in terms of species covered is questionable. It should be noted that despite the assertion that Australian Standards are “world-best”, for some species relevant sections of the ASEL are described as “under development” and have been so since its initial publication. One class of animals inadequately covered by the ASEL is wild-caught stock of any species. The OIE guidelines (OIE 2007) not only deal with more species than are covered by the ASEL, they include guidelines that deal specifically with animals unused to human handling.

Despite the assertion made, no evidence is provided to support the argument that the ASEL provides world-best capacity to deliver acceptable outcomes measured against animal welfare indicators. The ASEL is not outcomes-based, the outcomes that precede the Standards are not covered by the legislation and in most cases are not measurable, the only outcomes routinely measured and reported are mortality and on-ship births. A truly outcomes-based approach would require agreed objective measures of welfare (both positive and negative) and there is currently no such agreement. Furthermore, compliance was not assessed in any capacity (meeting prescribed outcome indicators or otherwise) in the report. Despite claims to the opposite, it is not possible to validate the authors’ assessment and rating of the Standards by reference to the supplied web addresses as insufficient detail is given regarding the comparison criteria used by them.

2.6. Recommendations of the MLA report

Nine recommendations are made at the end of the *World Livestock Export Standards* report. The suggestions that the ASEL should be viewed as a “work in progress” and should be updated in response to relevant changes in standards from other countries (Recommendations 1 and 5) is appropriate in the setting of continued livestock exports, as it can be anticipated that both the scientific understanding of animal welfare and its assessment, and community attitudes will change over time. Similarly, the suggestion that other livestock-exporting nations develop animal welfare standards that are legally binding, accessible, easy to use, subject to review, and comparable with other equivalent standards (Recommendations 6-9) is an appropriate approach to fostering improved animal welfare in a climate of ongoing livestock exports.

In contrast, the stated support for “joint ownership” of the ASEL (Recommendation 2) is undermined by earlier comments suggesting that greater credence be given to industry rather than other stakeholders. Recommendation 3 encourages that a balance should be maintained between prescriptive standards and outcomes-based standards, yet no argument is provided in support of

this recommendation, and the limitations of these approaches are not discussed. It is unclear why the authors feel that it is desirable that export operators should be able to exercise discretion in developing and applying their own systems rather than being told how to comply. There is certainly potential benefit for in improving the understanding and delivery of animal welfare in ‘customer nations’ (Recommendation 4), where these nations fall below exporting countries in their standards. However it is debatable whether an ongoing trade is necessary for this to occur. The argument can also be made that livestock should not be exported to countries where there is an expectation they will be subject to poor animal welfare standards.

3. Discussion

RSPCA Australia's assessment of the *World Livestock Export Standards* report released by MLA in 2006 finds it deeply flawed. The report is heavily reliant on value judgements in its assessment of the quality of the ASEL relative to other standards. It is also internally contradictory, referring in the text to criteria missing from the comparison tables, stating that no improvements can be made to the ASEL despite an entire section of the ASEL being ranked lower than for other equivalent international standards, and stating that exporters have a contingent interest in the welfare standards of importing nations, yet describing such standards in major markets as not yet adequate and exporters as unlikely to adopt welfare standards that fail to yield production benefits. A lack of scientific evidence or clear argument to support many of the assertions made in this report raise strong concerns that these statements are a reflection of the same value judgements that were allowed to distort the study design.

The report describes itself as a benchmarking study, yet the main part of the report, which is intended to compare export standards from other countries against the ASEL, does not use a benchmark scoring system. In addition, the choice of criteria used in the comparisons is highly selective, and the scores accorded to the ASEL in these comparisons are not realistic.

Not only does the report's major conclusion, that the ASEL does not need revision, contradict its own findings that large sections of the Standards could be improved, there are significant problems with both the ASEL and the process by which it was developed that were not identified or discussed in the *World Livestock Export Standards* report.

RSPCA Australia has identified several problems with both the ASEL and its development process that inhibit its capacity to adequately ensure minimum standards of welfare for exported livestock. These are discussed in detail below.

3.1. Enforceability and exemptions

The most substantial problem with the ASEL is the lack of adequate mechanisms to enforce compliance. The Australian Government lacks direct powers under the Australian Constitution to legislate animal welfare requirements. The ASEL falls under the Commonwealth's powers to legislate with respect to foreign trade, and as such is enforced by the Australian Quarantine and Inspection Service (AQIS). However, AQIS lacks the necessary powers to enforce some sections of the Standards and as a quarantine service also lacks experience in the field of animal welfare. Thus, while the Standards take a "whole of chain approach" covering all aspects of the livestock export trade from planning through to on-board management, many sections of the Standards lie outside the jurisdictional powers of AQIS and the Commonwealth, and could only be enforced under State and Territory legislation. It should be noted that because the livestock export trade involves multiple States/Territories, and animals frequently cross boundaries during land transport, there are also some substantial jurisdictional issues that need to be resolved. The Australian Position Statement on the Export of Livestock emphasises the role of State and Territory governments in enforcing their own legislation. Nevertheless, no Australian State or Territory government has yet legislated to recognise the ASEL, so it is not currently enforceable by them. As a result, large sections of the ASEL are effectively unenforceable. Not only this, even when individual Standards can be enforced it is unclear what the penalties are for breaches of those Standards.

Even if the State and Territory governments adopted legislation allowing the enforcement of the ASEL and defining penalties for breaches of the Standards, many individual Standards require things that are not measurable, not amenable to regulation and not enforceable. For example, maximum water deprivation times are specified, but it is not clear how a breach of these can be identified. Standard 5 of the ASEL is even more problematic as it involves minimum requirements while animals are at sea. Regulation and enforcement are particularly difficult once animals are loaded onto a ship (very few agencies have the legal powers to enter a ship to regulate or enforce Standards). And this is further clouded by the exit of the animals from an Australian State or Territory and then Australian waters.

Throughout the ASEL there is scope for exemption from individual standards given approval by the relevant Government Department (AQIS). This is highly inappropriate for two reasons: (a) the Standards were never intended to be discretionary, they were developed in order to impose clear enforceable standards on an industry that had failed to adequately address animal welfare concerns under self regulation; and (b) AQIS's primary role is as a quarantine service; as an organisation it lacks the expertise to make these kinds of complex decisions on animal welfare issues. Furthermore, the Standards make no requirement for any exemptions given to be justified in terms of welfare outcomes, nor is there any form of transparency in the exemption process.

There is also a lack of transparency in the export process and its regulation. The Standards contain no process for public feedback of information on animal welfare performance. Furthermore, inadequate reporting requirements mean that little useful data are collected, and these are not available to the people who most need them (e.g. LESAC). For example, in Appendices 5.1 and 5.2 of the ASEL, health and welfare issues are limited to sick pen reports while temperatures and descriptions of faeces are given as averages for each deck. There is no scope to comment on individual pens or areas, or individual classes of animal. Similarly, reportable mortality levels should be provided not only for species (sheep, goats, cattle, etc.) but also for each class (wethers, rams, ram lambs, ewes, ewe lambs, etc.). These figures not only need to be collected but fed back to exporters for use in a process of continuous self-improvement.

In addition to exemptions allowed under specific clauses, loopholes in the wording of the ASEL mean that not all animals are protected by all of the Standards. Animals that have travelled for 14 hours or less during the land transport phase of the export process do not have to be held at registered premises (Standard 2.21). Thus, they are not covered by any of the protections specified in Standard 3, most importantly, there is no obligation for them to be individually assessed for fitness to travel at any stage. Even for animals held at registered premises, once animals have been individually inspected and a leave for loading granted, there is ample opportunity for their condition to deteriorate prior to loading for export, especially given that an eight hour journey time from the registered premises to the port of embarkation is allowed under Standard 3.

3.2. The ASEL development process

The LESAC process does not give due consideration to the regulation and enforcement of the Standards. The focus of LESAC is to achieve consensus agreement, which frequently results in confusing, subjective and legally ambiguous statements of requirement rather than clearly worded, measurable standards that are amenable to regulation and unambiguous from a legal perspective. Either suitable legal representatives should have been appointed to LESAC from the beginning (including enforcement agencies and solicitors) or a legal advisory committee should have been established to provide advice in a similar way to the Technical Working Group of LESAC.

LESAC is unable to ensure the enforceability of the Standards that it produces, as it has no control over the legislative barriers to enforcement. LESAC reports to the Australian Government Minister for Agriculture, Fisheries and Forestry, and the Standards are referred to under Commonwealth legislation, but many of the Standards developed by LESAC lie outside of this jurisdiction, and LESAC lacks the powers to resolve the jurisdictional issues (including information sharing and legislative change) necessary to ensure the regulation and enforcement of these standards.

LESAC is expected to make complex scientific assessments without access to all of the relevant data. Much data relating to livestock export are available only to exporters themselves. This lack of transparency means that livestock export representatives make representations to LESAC regarding data of which the accuracy is impossible to confirm. The majority of ongoing research and development is also being undertaken by the livestock export industry, not independent scientists, with the obvious resulting problems of bias and free access to data. An appropriate example of this problem is the heat stress model developed by LiveCorp; this model is now referenced throughout the Standards yet it has never been independently assessed, is not available for investigation, has not produced any data published in the scientific literature, and is therefore of verified quality.

The composition of the Technical Working Group of LESAC is inadequate to address the kinds of questions referred to it. The TWG was established to further investigate issues of a technical nature arising during LESAC discussions. These issues frequently involve complex decisions directly relating to animal welfare, yet no animal welfare scientists are included on the TWG panel.

3.3 Conclusions

It is clear from this analysis that the evidence presented in the *World Livestock Export Standards* report does not support the claim that Australia's livestock export standards are of a "high quality" and do not require revision, nor does it demonstrate that Australia has world-best practice in livestock export.

There are substantial problems with the livestock export trade in general and specifically with the Australian Standards for the Export of Livestock in terms of both the quality of the standards and their inability to be properly enforced. While these problems remain unaddressed, there is little hope that the welfare of exported livestock can be adequately protected during any stage of the journey from farm to export port. Combined with the frequent mistreatment, poor handling and inhumane slaughter of many of these animals in importing countries, the export of livestock remains a significant and seemingly intractable animal welfare issue.

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