



Exploring market options for 'out of spec' cattle in the pastoral areas of Western Australia

Prepared by:

Michael McCarthy
Global Livestock Solutions Pty Ltd
26 Clarendon St
East Brisbane
P.O. Box 7838, East Brisbane
Queensland 4169
Phone: (07) 3891 1213
Mobile: 0419 967 914
Email: mrm@livestocksolns.com.au

and

Mr Ian Whan
Alliance Resource Economics
392 Southbrook Rd
Felton
Queensland 4358
Mobile: 0412 473 202
Email: ian@allianceresourceeconomics.com

Prepared for:

**The Cattle Industry Funding Scheme
Management Committee
January 2014**

Funded by:

**Industry Funding Scheme,
Biosecurity and Agriculture Management Act,
Western Australia, 2007**

Abstract

Events following the suspension of Australia's live cattle exports in June 2011 highlighted the importance of the Indonesian market, particularly to pastoralists in the north west of Western Australia. In the two-year period following the suspension and re-opening of the trade, average annual cattle exports to Indonesia relative to the two-year period prior to the suspension 2010, effectively halved. This left northern producers looking for alternative markets for thousands of sale cattle – particularly those not meeting the tighter specifications applying in Indonesia post August 2011. This study was commissioned to address this situation. In early 2014, it is possible to report that alternative markets (to Indonesia) did emerge in 2012 and 2013 and together took 125,000 additional head out of northern Australia over those two years. While these 'alternative' markets did not fully offset the lost opportunities in Indonesia, their emergence reflected positively on the ability of Australian livestock exporters to find new customers. In reality, the need for alternative markets has abated over the period since the suspension and it now appears that Indonesia will re-establish itself as the major market for the North of Australia and volumes will be fully restored in calendar 2014. Furthermore, Indonesia's shift from a quota based system favouring feeder cattle has been replaced by a reference price scheme that accepts slaughter-ready cattle in a bid to dampen domestic beef prices. Consequently Indonesia is now in a position to accept nearly all categories of sale cattle (with the possible exception of aged cows). Indonesia's proximity to northern ports combined with its competitive advantages in feeding, processing and marketing beef will allow it to achieve a dominant position going forward. The complementary nature of the cattle trade between the north of Australia and Indonesia is compelling and irrefutable. The suspension event led to several fundamental changes in the operation of the live export trade. Most significantly, it brought about the introduction of ESCAS – an exporter supply chain assurance scheme that makes the Australian exporter responsible for the proper care of Australian cattle throughout the entire supply chain up to point of slaughter. Although this has added a significant administrative burden, it addresses the public concerns about animal welfare in this region. It is also likely that ESCAS will channel Australian cattle into the larger, more professionally managed feedlots and abattoirs. Cattle importation has become more political with associated policy now orientated toward the imperatives of food security and price stability. This study has arrived at some key conclusions: a) the June 2011 suspension event uncovered a deep vulnerability that has now been placed within containment lines (by the implementation of ESCAS); b) alternative markets for Australia's live cattle do exist and exporters have a capacity to seek out and serve these markets at short notice; c) Indonesia has a high capacity to utilise imported cattle and will resurface as the dominant market for all categories of Australian cattle sold out of the north west of Australia.

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EXECUTIVE SUMMARY

- *Dependency on live exports:* Due to remoteness from southern outlets, 'live export' is essentially the only market for turnoff cattle from NW Western Australia and the Top End generally. Prior to suspension of the live export trade on 8 June 2011, this situation was not seen as particularly risky due to ready access to near-Asian markets and attractive price rates. Since the early 1990's, the major customer for cattle out of northern Australia has been Indonesia. When export volumes peaked in 2007 at 772,000 head, Indonesia was taking 60% of the total live cattle exports from Australia (and 97% of the trade to SE Asia) and was paying prices comparable, if not higher, than any offered in southern markets.
- *Suspension of the Trade:* Following a Four Corners program shown nationally on 30 May 2011, depicting mistreatment of cattle originally from Australia, in small Indonesian abattoirs during slaughtering, the Australian Government suspended all trade in live cattle to Indonesia, and shortly afterwards to all destinations. At the time, the suspension was seen as the appropriate course of action by government to the public outrage regarding the mistreatment. It is now apparent that the full implications of the suspension on the wellbeing of northern cattle producers and on food security concerns within Indonesia itself were not fully understood or appreciated at the time.
- *Recommencement of the Trade:* While the suspension was lifted after 29 days (in August 2011) the damage was done. After the suspension was lifted, cattle producers in the region were worse off as follows: a) the Indonesian Government reacted (understandably) with a renewed focus on self-sufficiency. This reduced quotas and weight restrictions on imported steers and reduced the total number of cattle marketed into Indonesian from Australia by an estimated 600,000 head per year over the two years following the suspension episode (MLA LiveLink); b) the Australian Government also applied conditions on re-opening the trade in the form of ESCAS (the Export Supply Chain Assurance Scheme) which acted to slow re-entry into the market far beyond the actual suspension period; c) apart from this, many of the cattle that producers were intending to turnoff when the suspension was imposed went 'out of spec' during the suspension/ESCAS implementation period, leaving them with virtually no viable outlets for the balance of 2011 and beyond; d) without a market during this period, many producers were forced to carry more cattle than usual, with knock-on implications for over-grazing, herd productivity and animal welfare.
- *Alternative markets:* Since the trade suspension in mid-2011, several Asian and Far Eastern countries have stepped forward to take greater numbers of cattle. Brunei, Vietnam, China, Israel, Malaysia and the Philippines have all taken significantly larger numbers over the past two years. Each new or expanded market has established ESCAS-compliant supply chains and shown a preparedness to participate in the Industry Collaborate Welfare Program – a training initiative sponsored by MLA. The rapid emergence of alternative markets in 2012-13 is anecdotal evidence of an efficient market; one where trade responds quickly and precisely to the inherent forces of supply and demand. Resurgence of the Indonesian market in the latter half of 2013 is further evidence that the live export market functions efficiently. Indeed the only 'failing' likely to threaten the industry's future would appear to be misguided political interference, of the type inflicted on the industry by the Australian Government in June 2011.
- *On-shore processing:* Immediately following the suspension event and the subsequent accumulation of sale cattle in the far north, it was possible to mount an argument for beef processing in the far north. At the time, proposals to build abattoirs at Darwin and Broome were advanced, encouraged by the proposition of being able to purchase cattle at a significantly lower price than was the case prior to the suspension. While on-shore processing should avoid the animal welfare risks associated with live export, there are many disadvantages that have always plagued the viability of northern beef processing. For example, young cattle will continue to find their way into the live export trade, meaning that most of a local abattoir's intake would be confined to cull cattle, with

relatively low meat quality. In this case, the abattoir's product will be locked into the low-value grinding market. Also it is likely that the abattoir intake will be relatively more seasonal thereby raising average costs per unit of output. These and other factors lead to the inescapable conclusion that northern Australia's comparative advantage lies in breeding cattle, not processing them. This suggests that the economic future of the northern cattle industry is fundamentally tied to live exports (especially into Indonesia) and this is where the industry's policy-making should focus. Given the prerequisites of free trade and strong dialogue, scope exists to further develop and consolidate the commercial relationship between the cattle industries of Australia and Indonesia.

- *Current situation:* Throughout most of 2013, the Indonesian Government used quotas, applied to the volume of cattle imports, as a means of regulating retail meat prices within Indonesia. When first introduced, the aim was to keep retail beef prices within Indonesia slightly above import parity as a means of encouraging the domestic cattle industry. But connecting cattle import numbers and domestic beef prices (at socially acceptable levels) have proved to be difficult, with retail beef prices in Indonesia reaching record levels over the past 18 months. Following a shift from quotas to a reference retail price system, the Indonesian Government has recommenced the importation of slaughter-ready cattle, resulting in a more immediate manipulation of retail beef prices. This new policy has provided an outlet for nearly all categories of sale cattle (with the possible exception of aged cows). The Indonesian government has also expressed interest in acquiring pastoral stations in northern Australia for the purpose of augmenting the number of cattle entering the country. Both these initiatives are seen as positive and are in fact signs that confidence is returning to the trading relationship between Indonesia and Australia.
- *The way ahead:* The idea of greater cross-country investment in cattle production, feeding and processing, complemented by technology transfer and training^{1a} is not opposed, since it strengthens the sense of mutuality between Australia and Indonesia. But the optimal solution (to Indonesia's food security) lies in adoption of a range of mechanisms that will allow the bi-lateral relationship to achieve its full potential. It makes sense to extract the absolute most from the efficiencies involved. In terms of its geography, size and agriculture, Indonesia is ideally placed to partner with the northern Australian cattle industry. This partnership could (and should) mushroom into a sense of mutual ownership and interdependency. 'Specialisation and trade' would not only maximise economic efficiency, it would also maximise the coalescence in animal handling standards (between the two countries) for the mutual benefit of all players. Coupled with a persistent diplomatic effort, this mutuality should recognise the importance of incorporating all categories of sale cattle into the complementary business model. It remains to be seen whether the emergent markets (of Vietnam, Malaysia and Philippines) can hold their current numbers in the face of resurgent competition from Indonesia. China is another emerging market and has already sought supplies out of close neighbours such as Vietnam. It is clear that China understands the complementary business model described in this paper; already there has been diplomatic efforts to agree upon an acceptable protocol that would pave the way for live imports. It is not yet clear whether this will succeed but the entry of China into the northern live export market would be a real game changer; it would certainly make Indonesia fight harder to hold market share.
- *Conclusions:* With ESCAS, supplemented by on-ground training programs, now in place and the actual flow of live cattle out of northern Australia gathering pace, the industry can look forward to a brighter future. ESCAS has addressed public concern and reduced the future risk of major 'interventions' by: a) designating a responsible entity; b) identifying low-risk supply channels; c) tracing Australian livestock throughout

^{1a} These sentiments were mirrored at the INDOZ Beef Investment and Trade Forum held in Brisbane 22-23 August 2013. This forum was organised by the Indonesian delegation. See full report at: <http://adf.farmonline.com.au/news/state/general/elections/indoz-meeting-held-in-brisbane/2669324.aspx?storypage=0>



these supply channels; and d) periodically auditing and refining performance within each supply channel. The development, implementation and operation of this system has added costs to the business of exporting cattle but these costs are deemed to be outweighed by performance assurances for the entire length of the supply chain and implicitly, greater professionalism throughout the exporting industry. It seems the live export industry is destined to strive for a steady state characterised by a combination of effective regulation (designed to satisfy the imperative of animal welfare standards) and free market forces (needed to satisfy the imperatives of economic efficiency).

PART A – THE IMPACT OF TRADE SUSPENSION

1. Introduction

The pastoral region of northern West Australia currently specialises in breeding tropically adapted cattle and turning off young males in store condition. The region is geographically remote, which challenges the economics of cattle production by adding transport costs and limiting markets options. As a result, trade has been built around the live export industry. The trade with SE Asia, in particular, has many complementary aspects that involve sophisticated supply chain relationships. Over time, Indonesia has established itself as the main trading partner due to its proximity, scale and competitive advantages in cattle finishing and meat processing. In Australia, the trade is supported by an extensive road transport network, assembly and preparation facilities. In Indonesia (and other parts of SE Asia) the trade consists of feedlots and ultimately slaughter and distribution systems.

On the 8 June 2011, the Australian Government suspended all trade in live cattle to Indonesia. The trigger for this suspension was a television program depicting animal cruelty in several small-scale abattoirs in rural Indonesia. The trade suspension was seen as 'appropriate' action following public outrage about the mistreatment of the Australian cattle shown in the footage. It is apparent, however, that the consequences of this action were not fully understood by the government at the time. This lack of understanding has undermined the trading relationship with Indonesia and given rise to massive opportunity losses.

Although the suspension was lifted after 29 days (in August 2011) resumption required the implementation of an accredited supply chain in accordance with the Exporter Supply Chain Assurance Scheme (ESCAS). This delayed the resumption of trade well beyond the actual suspension period. In Australia, the slow resumption led to a substantial backlog of unsold cattle. In Indonesia, the slow resumption disrupted the supply of cattle and associated feeding activities and led to wild fluctuations in retail beef prices. This, in turn has fuelled food security concerns. The actual effects of the suspension are documented under a later heading, but the key issue is that despite the mutual trading benefits, import quotas were applied and specifications were tightened. Since this time Indonesia has re-established itself as the major and most promising market for all classes of cattle. In the process of reaching this point, however, it was necessary to assess alternative market opportunities and particularly those that had the potential to take 'out of spec' cattle.

1.1 Complementary Nature of the Trade with Indonesia

Indonesia is a sovereign nation of more than 245 million people located between Australia and SE Asia. The Indonesian land mass comprises a sprawling archipelago of more than 17,000 islands. While most of the population live on the five largest islands, the country's diverse geography and long history add to its complexity. As a close neighbour, with a diverse and growing economy, Indonesia is crucially important to Australia's future security and prosperity. In practical terms, this situation should engender a climate of mutual respect and cooperation, particularly in regards to prevailing cultural, economic and historic differences¹.

Like other Asian countries, Indonesia is developing an affluent middle class that is shifting its tastes toward a more protein-rich diet. At the same time, Indonesian's poorer consumers utilise low value beef cuts in their diet. Thus, high utilisation of the beef carcass provides an affordable supplement to the poor's predominantly rice-based diet.

Whilst the notion of self-sufficiency remains popular in Indonesia, the nation is increasingly reliant on food imports to feed its large and growing population. Moreover, importing feeder cattle generates many benefits at a local level. The large cattle feeding and meat processing sectors extract leverage from imported feeder cattle through job creation and value adding. Abundant capacity to finish cattle (in feedlots) exists as a consequence of by products from the

domestic food production (e.g. pineapple pulp) and manufacturing sectors – catering to the needs of large urban and rural populations. With more than a third of the population employed in agriculture, there is ample labour in rural areas to facilitate the harvesting and processing of stockfeed.

The escalation in beef prices following the suspension demonstrates that the cattle breeding herd in Indonesia is too small and too geographically spread to satisfy the nation's requirements. Even if Indonesia were to become self-sufficient in beef at some future stage, significant imports of both live cattle and boxed beef would be needed to enable herd rebuilding. Predicted increases in demand for beef, in line with population growth and changes in tastes, will also add to the elusiveness of self-sufficiency. To quantify this, Michael Whitehead, (speaking at the most recent *IndOz* Beef Investment and Trade forum ²) describes a win-win approach whereby Indonesia would still import around 467,000 head per year to meet a conservative demand of 3.5kg per capita by 2020. This prediction assumed that Indonesia would meet a self-sufficiency target of 70% but still import 74,000 tonne of boxed beef. In stark contrast, the same model suggests that without live cattle imports, the Indonesian herd would decline to close to zero by 2020.

Meat processing and distribution is a labour intensive activity. This favours meat processing in Indonesia compared to Australia (where wages are high by international standards and the industrial practices are still building on the reform agenda identified on the late 1980s). Meat processing in Indonesia is further favoured by having strong local markets for offal and by products. This makes these products relatively more valuable and better utilised than they are within Australia. Finally, Indonesia's large rural population and preference for fresh meat lends itself to a highly dispersed processing sector. While refrigeration is now more commonplace in most households, the chilled meat distribution system is still relatively undeveloped. Most meat is sold fresh through wet markets located close to abattoirs. Indonesian abattoirs place less emphasis on the environmental regulations that have contributed to the concentration of Australia's meat processing sector. Thus Indonesian abattoirs can operate economically on relatively low throughputs. The cost of processing in Australia is high by international standards with a figure of 350 USD per head ³. This compares unfavourably with about 280 USD in the US and a low 30 USD equivalent in Indonesia. Indonesia's low processing costs complements the dispersed feeding sector, high utilisation of by-products (at an affordable price) and strong local demand for fresh meat.

From the perspective of Australia's northern cattle industry, the live trade into SE Asian countries is critical. Indonesia's geographic proximity (4-5 days sailing from Darwin) and the total size of the market underpin its importance. Australia's northern cattle industry is operated along extensive lines with large inputs of land-area, but minimal inputs of labour, micro husbandry and supplementary feeding. Currently, there is no alternative use for the land, which bestows an overwhelming competitive advantage on cattle breeding and growing. This has acted to keep the industry in place since the early 1900s and through many periods of economic duress ⁴. Australia's northern abattoirs were squeezed out of existence in the 1980s by the emergence of 'quality' markets for beef (such as Japan), rapid emergence of the live export trade and high costs. The challenges to the profitability of beef processing in northern Australia (seasonality of supply, high costs, isolation and relatively low meat quality) still exist today and strengthen the economic logic of maintaining the live export trade to Indonesia. The northern industry has relatively low turnoff rates compared to the southern industry but these have improved immensely since the early 1980s.

Currently, there are no processing works in the Far North so the industry is structured around breeding for turnoff of relatively young, unfinished animals. Most herds are Brahman-infused to better cope with the conditions; this results in meat quality outcomes that are better suited to the cooking styles used in Indonesia than those found in Australia. But perhaps the most telling factor is the cost of accessing markets; the isolation of the northern pastoral industry limits the extent to which it can access markets for slaughter cattle.

The relative advantages of finishing and processing Australian cattle in Indonesia can be summarised as follows:

- **Latent demand for animal protein (particularly beef) in Indonesia due to its large population, growing affluence and scope to grow per capita beef consumption.**
- **The critical role of cattle imports to Indonesia's food security with the potential to augment supply whilst Indonesia grows its domestic cattle herd in a bid for self-sufficiency.**
- **Well-developed cattle feeding systems in Indonesia utilising by products that are otherwise unsuitable for human consumption (e.g. pineapple pulp) ⁵.**
- **Modern abattoir facilities servicing the city populations supplemented by smaller abattoirs that service the wet markets still popular in regional areas. Significantly lower slaughter costs in Indonesia.**
- **Better utilisation of the whole carcass (5th quarter) including offal and by products resulting in minimal waste.**
- **Service industries and employment associated with the regional feedlots in Indonesia.**
- **Large expanse of land across the north of Australia suited only for extensive production of unfinished beef cattle.**
- **Geographic, meat quality, seasonal and cost constraints on the operation of any Northern Australian based abattoir.**

The complementary nature of the trade provides plenty of incentive to confront the challenges implicit in the cultural differences between Australia and Indonesia. The benefits at stake beg a level of patience on behalf of the broader community with regards to changing practices. It is likely that strong diplomacy will be required re-build trust, reach a shared vision and re-establish a win-win trading relationship that meets the needs and aspirations of both countries.

The economic benefits of the trade are strong ⁶⁻¹¹ and justify a resolution of the animal welfare issues, making the trade socially and politically acceptable to all over the long term. Ultimately, regulations that address animal welfare issues will hold a central position in the future of trade with Indonesia. The nature of this regulation is discussed in more detail in the following section.

1.2 ESCAS (Exporter Supply Chain Assurance System)

The Exporter Supply Chain Assurance System now underpins the live export industry. The stated objective of ESCAS is:

"...to deliver high levels of confidence to both the Australian Government and the broader community that acceptable animal welfare standards are being applied to Australian animals."

It is therefore an assurance system built on four principles as follows:

1. Exporter accountability for the whole supply chain.
2. Demonstration that animals can and will be traced and individually identified at any point along the export supply chain.
3. Welfare standards that meet those outlined by the World Organisation for Animal Health (OIE).
4. Regular independent third party assessment of supply chain performance based on periodic auditing.

It is expected that the assurance itself will be:

- Independent
- Evidence based
- Transparent
- Impartial, ethical and professional
- Consistent with international audit standards; and
- Conducted by qualified and experienced auditors.

To assist in the establishment and operation of ESCAS, the Department of Agriculture, Fisheries and Forestry has released a plethora of guidance documents that outlined the steps required¹²⁻²². These steps outline the roles and responsibilities of those involved including an elaborate checklist system that addresses points of welfare in accordance with OIE guidelines¹³. As of 8 September 2013, 46 supply chains had been approved and are now operating using the guidelines provided (pers. comm. LIVECORP). A key aspect of the assurance system is the Australian exporter's responsibility and liability. Both the industry and DAFF concluded that 'exporter ownership' is the only way that ESCAS can be implemented in practice. The willingness of the industry to accept the associated risks and responsibility should be commended. Non-compliance penalties and sanctions include the loss of the exporter's export license, fines, criminal sanctions and/or the imposition of additional requirements aimed at addressing the non-compliance issues.

Many of the supply chains involve several changes in the ownership of cattle. Exporters are required to have agreements in place with each of the subsequent animal or facility owners. In terms of compliance, the exporter owns the chain, but there is nothing to stop the importing party from brokering further agreements with other suppliers. The extent to which establishment costs are protected (and/or respected) is therefore a point of contention. The agreements commit to the proper handling and care of animals even though the exporter has no direct management role in these facilities.

The costs of establishing and operating an ESCAS accredited supply chain are significant. Exporter businesses canvassed for the purposes of this study estimate that the cost of establishing and operating ESCAS at between \$10 and \$20 per head.

Documentation must include a description of the supply chain structure and control processes. This must include contracts or agreements that confirm the control of the supply chain to the point of slaughter. Each party must agree to collect, process and make available, data that relates to the movement of individual animals through the supply chain. This information must reconcile as a safeguard against any leakage of animals out of the supply chain. ESCAS is a closed loop system.

While current technology allows for relatively easy storage of data, its actual collection and accessing is time consuming and relatively expensive, particularly where collection systems lapse or where ongoing supervision is required. For ESCAS, there are quite clear guidelines in regards to auditing.

The implementation of ESCAS has, in many instances, strengthened trading relationships between importers and exporters with a renewed interest in joint ventures and cross investment. However, an unintended outcome of ESCAS has been a lack of fluidity in the market place. Prior to the trade suspension and the imposition of ESCAS, beef producers could rely on exporters to move quickly and easily between markets and between importers within markets to achieve the best prices according to fluctuations in currency, cattle specifications, seasonal conditions and competition. ESCAS has restricted this fluidity and exporters find themselves more reliant on their established supply chains. Under this scenario, beef producers need a greater awareness of the size and nature of markets to ensure that their production systems and strategies work in harmony with the market outlets available.

Although ESCAS is primarily an assurance system, animal welfare (and in particular slaughter practice) is central to the ESCAS process. According to the reporting and auditing conducted to date, many supply chains now utilise stunning and many others have substantially modified practices to comply with ESCAS demands. Concerted training and awareness programs have accompanied the development of ESCAS supply chains.

1.3 Getting Perspective into the Animal Welfare Debate

Although it appears likely that turnoff volume from Northern Australia will return to what it was prior to the suspension, there is no doubt that the suspension has changed the way that business is undertaken. Alternatives are no longer simply a matter of logistics and economics working within a free market. Animal welfare now holds sway and has become a pre-requisite to market access. However, the animal welfare vision is not necessarily the same for all those involved and some introspection is required.

Mainstream animal welfare is usually discussed in terms of practices and actions that positively affect the health and comfort of domestic animals. For some people, however, animal welfare extends into the realm of ethics and rights; this interpretation draws upon philosophical considerations rather than the biological considerations applying to mainstream animal welfare. It should be appreciated that ESCAS is an assurance system aimed at delivering minimum standards of animal welfare. It can be expected that over time ESCAS will incorporate various improvements in response to public perceptions regarding the treatment of live exports and advances in the science of animal welfare.

Australian livestock producers are no less conscious of the need to observe acceptable standards of animal welfare than are the public generally. This need is particular to our civilisation and is adjusted through time to reflect technical, historical, cultural, religious and economic influences. Animal welfare standards vary between countries according to the strength and dynamics of these same influences. Throughout Australia there are laws regarding animal welfare, which are enforced. Moreover, livestock producers see a direct relationship between how well their animals are treated throughout the supply chain, and the animal's performance as a source of food and income.

It is not possible to properly adjudicate on the Australian livestock industry without first acknowledging that it is 'export orientated'. Thus the livelihoods of Australian livestock producers depend in maintaining access to export markets. In the case of northern producers, the export market is for live cattle and there is no alternative outlet. Any party that seeks to interrupt the trade in live cattle out of northern ports should do so in the knowledge they are putting at risk the rights of thousands of people to make an honest living.

In recent years, Australian animal welfare, and more particularly animal rights groups, have been concerned with how animals are treated in various overseas countries that import livestock from Australia. The mistreatment that happens in these countries is not specific to where the livestock came from originally, nor is the offensive practices the fault of the producers who supplied the livestock originally. The perceived mistreatment is widespread within particular countries that happen to be customers. Implicitly, the Australian animal rights movement compares the treatments they observe in these developing nations against the standards applying in developed nations. But rather than take their complaints directly to the perpetrators, they report to the Australian public for the apparent purpose of disrupting trade and hurting Australian livestock producers.

The problem with politically motivated animal welfare is that it can generate externalities – or unintended consequences. Sensationalist attempts at improving the treatment and wellbeing of animals can have adverse implications for the entire food chain, and all those who rely upon it, ultimately doing more harm than good. Following are arguments and examples that emphasise the multi-dimensional nature of animal welfare and the need to evaluate its outcomes from the perspective of the entire food chain and all those affected.

By appealing directly to the Australian public, animal welfare and rights groups are potentially jeopardising the livelihoods of livestock producers and the rights of consumers in developing countries. From a global perspective, it would be fairer if these groups expending most of their effort appealing directly to the perpetrators of the crimes that offend them, namely backyard/roadside slaughter associated with religious festivals and small-scale abattoir practises in importer countries. In practice, animal welfare outcomes depend as much on access to know-how and technology (associated with handling, transport and slaughter etc) as it does on local customs and laws. Welfare and rights groups could do more to bring about the outcomes they advocate by assisting with the on-ground delivery of know-how and technology in developing countries, than they do by engaging in sensationalist reporting to naïve audiences. In the meantime, there is the non-trivial issue of improving international relations through enhancing the welfare and wellbeing of people throughout the developing world. One of the most powerful and effective means of making the world a better place is through fostering trade in basic foodstuffs. Transporting goods from regions of surplus to regions of scarcity enhances equity. In this regard, live export of sheep and cattle has a vital role to play in bringing about a fairer, safer and more prosperous world. The trade between Australia and Indonesia provides an excellent example of how these outcomes are achieved in practice. Cattle exported from northern Australia to Indonesia enter the meat supply chain via feedlots and add greatly to economic activity throughout regional Indonesia.

It is ridiculously easy for a television camera to portray images of perceived animal mistreatment in a developing country that will offend and shock the Australian public. But doing this will not address the underlying issues affecting the wellbeing of animals in places where the images were sourced. In all probability sensationalist reporting will hurt two innocent parties; Australian livestock producers who go to great lengths to meet market specifications and Indonesian consumers who want a more protein-rich diet that includes meat.

In brief, animal welfare and rights groups should consider the consequences of their actions in terms of the 'big picture' that takes into account the rights of producers and consumers as well as animals. If it is considered culturally and ethically appropriate, there is indeed an enormous job of work involved in closing international gaps regarding the proper treatment of domestic animals.

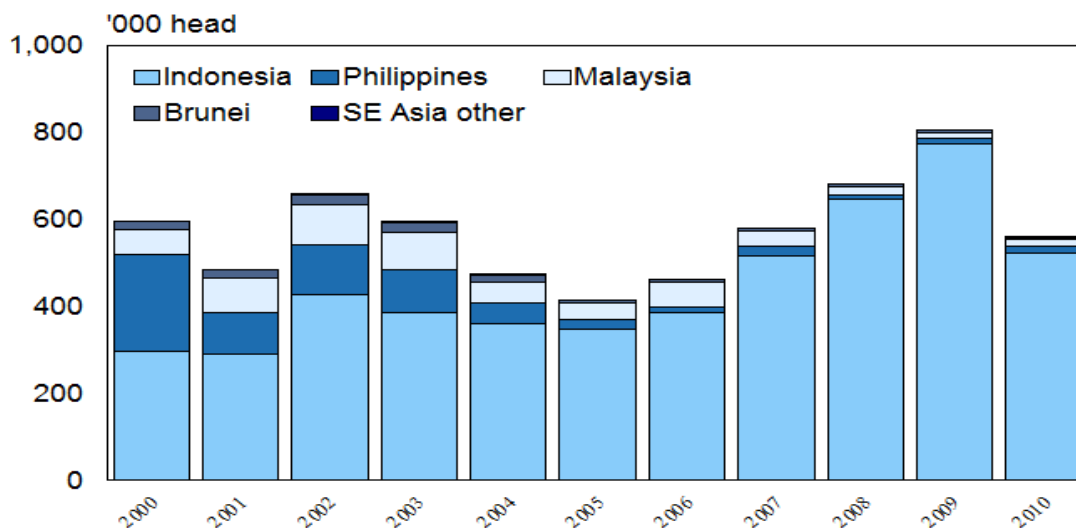
2. The Indonesian Market for Live Cattle

As mentioned, the Australian Government suspended all trade in live cattle to Indonesia on the 8 June 2011. This suspension was not the first time that the trade to Indonesia has been disrupted. The Asian currency crisis of 1997/1998 curtailed trade in cattle with Indonesia for a substantial period. A study, commissioned by MLA in 1999, assessed the way in which the market might recover²³; it gauged the size of the Indonesian herd, evaluated the prospects for joint venture arrangements and opportunities for downstream processing. The complementary nature of the relationship was spelt out (even at that time) and the inability of the Indonesian herd to meet demand suggested that trade would recover quickly once the currency crisis resolved itself. This prophecy proved to be correct and the trade recovered quickly.

Since then Indonesia has become the dominant importer of Australian cattle with the trade actually booming prior to the June 2011 suspension. Cattle prices were at a record levels, giving the northern pastoral industry new found confidence. This translated into strong interest in owning pastoral assets with property prices rising to historic highs and owners enjoying consistent increases in property valuations. All of this was achieved against a high dollar, which normally works against export industries. The situation prior to the suspension is anecdotal proof of the successful business model. The actions of the Australian government in mid 2011 were therefore shattering and recovery has been tedious.

2.1 Market Analysis (prior to the suspension)

Although total exports in 2010 were somewhat down on the highs of 2009, it is clear that Indonesia had won market share and gradually displaced other countries from 2007 onwards. Its proximity, and strong latent demand have given Indonesia a competitive advantage and this has translated into the dominant market share depicted in Figure 1. Indonesia imported 520,987 head from Australian in 2010, representing 97% of the trade to SE Asia.



Source: ABS

Figure 1. - Total Australian live cattle exports to S.E. Asian countries (via MLA LiveLink)

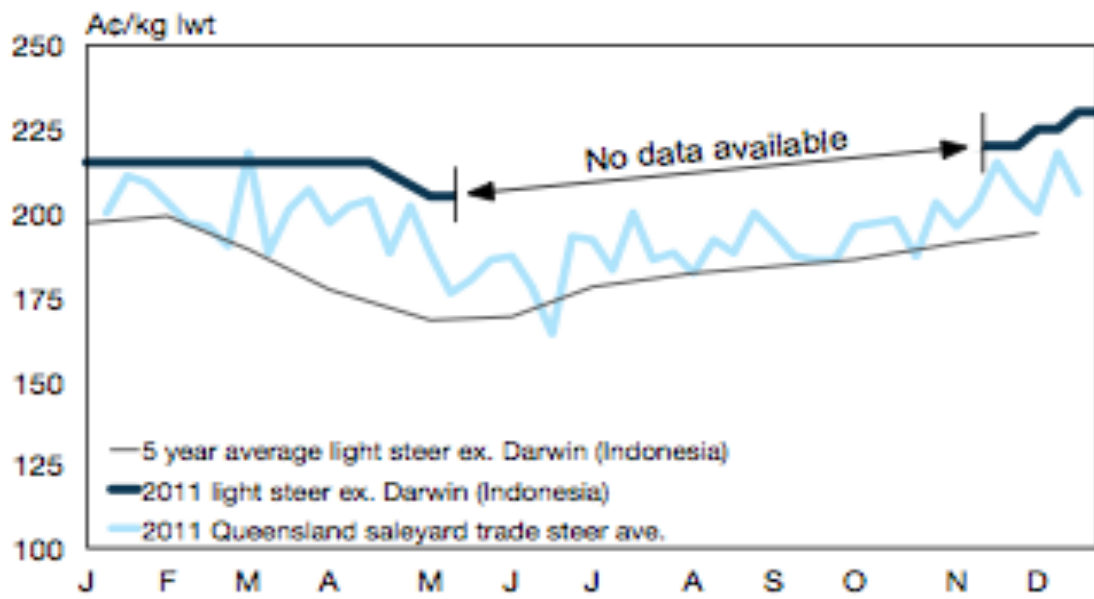
The exact turnoff figure from the northern pastoral regions of Western Australia is hard to determine as some cattle are transported to the south of Western Australia and exported from Fremantle, or taken to southern meatworks. Based on sea port loading data, it is estimated that the annual turnoff from the pastoral areas of Western Australia is in the order of 220,000 to 230,000 head²⁴. (This figure would be a little higher if both the Gascoyne and Murchison regions are included; also it assumes that a small percentage of the cattle exported to Israel, Egypt, Libya, Jordan and the Middle East were originally sourced from the bluetongue free areas within the northern pastoral regions – see Table 1). The northern turnoff would have had

an estimated FOB value in the order of AUD138M (based on the Australian livestock export statistical review 2010). Very few cattle would have been slaughtered at southern meatworks during this period.

Country	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total No. Head
Bahrain								500	100				600
Brunei			716			240		796		825	582		3,159
China	5,761	2,755	8,076		5,173	6,743		8,801		6,720	6,331	7,192	57,552
Egypt		16,165				17,186		5,090	18,000				56,441
India								1,850					1,850
Indonesia	50,819	46,502	44,911	57,033	52,950	32,685	50,354	38,861	50,586	39,835	37,738	18,713	520,987
Israel			8,644				9,053	8,663				17,286	43,646
Japan	1,848	1,500	1,693	1,499	342	1,440	1,500	1,500	1,769		1,950		15,041
Jordan		9,143	786					9,328					19,257
Kuwait	50	443	90		66		151	98					898
Libya	9,739				9,530								19,269
Malaysia		70	1,203			899	1,531	3,300	1,615	3,577	1,897	2,992	17,084
Mauritius		800											800
New Caledonia					15								15
New Zealand									51				51
Pakistan				75							2,209		2,284
Philippines					4,944	3,304	89		1,604	4,807		1,496	16,244
Qatar				191		200	1,350	200		420		200	2,561
Russian Federation			5,161	1,830							1,553	1,651	10,195
Saudi Arabia							5,873			10,628			16,501
Sudan		1,000											1,000
Taiwan												337	337
Turkey					229	833		143		28,093		36,704	66,002
UAE		272										100	372
Vietnam						353			369			705	1,427
Total Cattle	68,217	78,650	71,280	60,628	73,249	63,883	69,901	79,130	74,094	94,905	52,260	87,376	873,573
Total FOB value ('000)	\$51,309	\$60,494	\$64,682	\$39,622	\$49,276	\$53,113	\$43,048	\$62,956	\$50,258	\$73,866	\$50,195	\$79,975	\$678,794

Table 1. - Total Australian live cattle exports by month in 2010 (MLA Live Link)

Prices for export cattle were at record high levels in 2010 (see Figure 2). Light steers ex Darwin were quoted at around 210c/kg live weight with similar prices being paid ex Broome. More importantly, the demand made it relatively easy to sell 'out of spec' cattle with non-pregnant heifers, heavy bulls and better quality cows selling without significant discounting. It is estimated that the sale of "out of spec" cattle in 2010 accounted for over 30% of the total income. This led to high levels of profitability and a surge in property values. This situation continued until June 2011.



Source: MLA's NLRS, Landmark

Figure 2. - Australian saleyard and live export cattle prices (AUD c/kg lwt) – 2011 (via MLA LiveLink)

2.2 Market Analysis (since the suspension)

The suspension of the live cattle trade to Indonesia in June 2011, and the uncertainty that followed, put northern producers in a state of financial and emotional anxiety. The financial cost was significant and has not yet been recovered. The unfolding of events since the suspension is documented below.

Following the one-month suspension period, the number of cattle exported to Indonesia rebounded in response to a shortage of beef and an associated price spike in the major wet markets. This response allowed a clearing of many cattle that were being held in facilities close to ports. Exports rebounded quite strongly throughout the latter part of 2011, subject to the cattle being incorporated in an approved ESCA supply chain.

The enduring effect of the suspension came after the initial rebound when the Indonesian government took full control of imports and imposed a quota system. This stemmed the flow of cattle imports and dampened producer prices as shown in Figure 3. It has been claimed that the northern price collapse flowed through to store cattle markets in Queensland and Australia generally, including the southern markets within Western Australia (Queensland Country Life and Farmer's Weekly).

The most damaging impact was the difficulty in selling 'out of spec' cattle. Although there have been small numbers of good heifers sold to Indonesia, many categories of stock became unsaleable, with a profound impact on producer profitability. The export price for light steers has dropped from 210c/kg live weight (delivered Broome) to around 150c/kg. Out of spec sales dropped from 30% of sales income pre-suspension to essentially zero post-suspension. Fortunately, we can report that this situation has been reversed in recent months as Indonesia implements its new import policy. Quotas issued in October 2013 included significant numbers of "slaughter ready" cattle; perversely these have been hard to find in the latter part of the mustering season.



Figure 3. - Australian saleyard and live export cattle prices (AUD c/kg lwt) since the suspension (MLA LiveLink)

The main driver behind the introduction of the quota system (imposed since the suspension) was renewed interest in food self-sufficiency within Indonesia. The shock waves that followed the trade suspension obliged the Indonesian government to “do something” and the concept of self-sufficiency had strong nationalistic appeal. The quota system (and the recently conceived reference price scheme) reflects this sentiment. As a result, imports were substantially reduced; only 278,581 cattle were imported in 2012.

The reduced shipments to Indonesia and the associated fall in northern cattle prices resulted in other countries showing interest in purchasing cattle from Australia. While creation of new supply channels has necessitated an investment of time and money to achieve ESCAS accreditation status, this seems not to have been an insurmountable obstacle. Significant sales to the Philippines, Malaysia and Vietnam started to show-up in the 2012 live export statistics but were even more evident in the interim MLA statistics to June 2013 (see Table 6). Despite the entry of new players, Indonesia was still the largest market for Australian live cattle in 2012 and 2013.

The lower cattle prices since 2011 have also seen more lightweight cattle being staged south for shipping to Israel out of Fremantle. Israel has been a consistent market but requires adjustments to age of turnoff, with implications for herd dynamics. Nevertheless, the Israeli market for light cattle has been a real option throughout, especially for Pilbara pastoralists.

The lower prices have also encouraged interest from the Middle East, Egypt, Libya and Turkey although the statistics do not show any significant changes from previous years. In many cases the numbers have actually dropped due to difficulties in complying with ESCAS. Probably the most exciting development, however, has been the interest from China. The potential of this market has attracted a significant diplomatic effort. China and other emerging markets are discussed systematically in PART B of the study.

Country	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total No. Head
Bahrain						634	1,790						2,424
Brunei		930			875		960			2,048			4,813
China	445	3,196	2,726	7,684	5,199	2,784	3,844	3,069	8,933	2,870	2,243	10,577	53,570
Egypt							9,236		5,353				14,589
Indonesia	31,656	39,983	16,420	33,747	81,912	17,542	310	19,311	51,800	39,416	35,079	46,183	413,359
Israel		9,500		9,284			11,659			13,671		9,811	53,925
Japan	2,298		1,950		1,770		2,010	2,009	340	2,010		1,829	14,216
Jordan							346		254				600
Kazakhstan								708	432	220	837		2,197
Kuwait	491		103		100	50	50					60	854
Malaysia	900		1,180		1,588	2,000	1,700			3,119	100	1,700	12,287
Mauritius			1,200					1,800					3,000
New Zealand	22		50								1		73
Pakistan	727	645		644								660	2,676
Philippines					5,500	2,362	1,113	2,243	5,154	18	5,318		21,708
Qatar					100	310	163			200			773
Russian Federation					12,855			3,505			14,208		30,568
Saudi Arabia			3,007										3,007
Taiwan			200	368						250			818
Thailand		37										46	83
Turkey	1,889	4,037	24,729			9,180		800	11,661	4,261			56,557
UAE	277		561							150	50		1,038
USA				3		15							18
Viet Nam			331					945					1,276
Total Cattle	38,705	58,328	52,457	51,730	109,899	34,877	33,181	34,390	83,927	68,233	57,836	70,866	694,429
Total FOB value ('000)	\$29,835	\$45,383	\$47,917	\$45,651	\$93,013	\$31,819	\$33,273	\$35,004	\$74,230	\$53,280	\$69,453	\$70,576	\$629,434

Source: ABS

Table 2. - Total Australian live cattle exports by month in 2011 (MLA LiveLink)

3. The Impact of Trade Suspension

The impact of the trade suspension to Indonesia has been discussed in general terms under the preceding headings. Many people have come to believe that ESCAS will ultimately provide the live export industry with a strong platform from which to develop further trading relationships around the globe. While the question as to whether ESCAS could have been implemented without a trade suspension remains open; for benchmarking purposes it can be assumed that its introduction was inevitable.

In early 2014 there seems every chance that the world demand for food will allow prices for cattle from northern Australia to rebound strongly. In this case, ESCAS provides a superior basis for trade in a new era. While countries such as Saudi Arabia will be barred from taking Australian livestock because it still regards ESCAS as an unwelcome and unnecessary imposition, many other countries will adopt ESCAS so that they can maintain access to Australian cattle.

Without losing sight of the fact that animal welfare is the primary focus of ESCAS (making it a pre-condition of trade) it is also possible to view the trade suspension and the introduction of ESCAS in terms of a cost/benefit proposition.

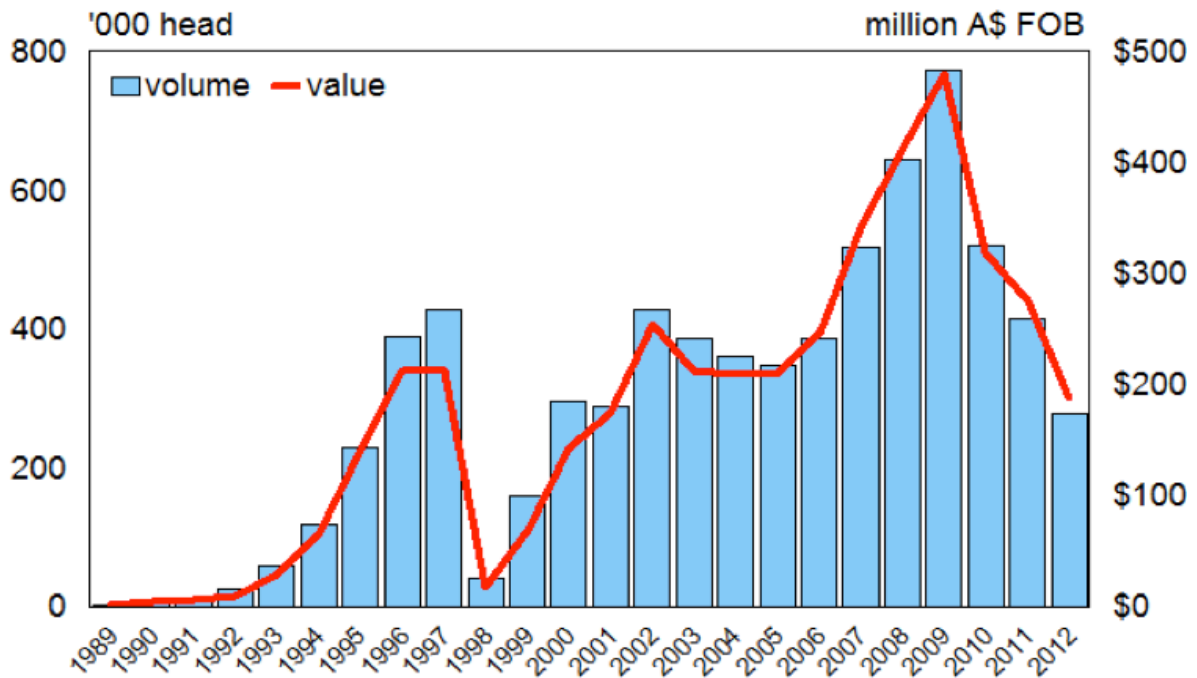
3.1 The Impact at an Industry Level

Industry statistics show only a marginal reduction in the FOB values of live cattle exports from 2010 to 2012 (\$678 million in 2010, \$629 million in 2011 and \$605 million in 2012). This masks the effects of the suspension on a regional basis. Total cattle exports fell from 873,000 head in 2010 to 617,000 head in 2012 with this reduction affecting the northern cattle industry (and particularly the Kimberley/Pilbara region) in a disproportionate way. Most of the shortfall in turnover has occurred in the northern regions with the remote Kimberley/Pilbara region most affected.

In addition to the lower turnover, a drop in price from 210c/kg to 150c/kg lowered the value of turnover from around \$750 per head (fob) to \$617 per head (fob). More importantly, many categories of livestock became unsaleable. Historically, the turnover of 'in spec' male cattle has covered operating costs leaving the sale of other categories of livestock to provide a net return or profit. This is discussed under the heading of 'impact at a property level'.

Using the port of loading and destination figures, it is clear that the reduced export numbers fell most heavily on the northern cattle industry. Further identification of dairy cattle exports and shipments to Turkey and Russia, (that are generally sourced from southern Australia) suggests that exports from northern Australia to Indonesia have dropped from a peak of 773,000 in 2009 then to 520,000 cattle in 2010 to little more than 278,000 cattle in 2012. Applying the drop in value to the reduced number of exports compounds the situation; the implied drop in revenue is yet to become evident in the statistics.

The impact can be quantified in a number of different ways; one way is to compare the total FOB value of live cattle exports to Indonesia in the two-year period since the suspension to the same period prior to the suspension. Thus the total value of livestock exports to Indonesia in the two years prior to the suspension was \$729 million compared to \$427 million since the suspension. In rough terms this represents an opportunity loss of \$300 million.



Source: ABS

Figure 4. - Numbers and value of live cattle exports to Indonesia 1989 – 2012 (MLA LiveLink)

One of the more disturbing facets of the debacle is the loss of efficiencies it inflicted on service industries. Many of the industries that service the northern cattle industry suffered cost inefficiencies stemming from under-utilisation of facilities e.g. idle shipping space, idle trucks due to the stop start nature of business and idle helicopters. In Indonesia, there has been under-utilisation of feed by-products, an inability to plan for feed reserves, sub optimal nutritional value of fodder crops etc. A return to profitability is not simply a matter of price; it is also a matter of re-establishing the efficient use of resources.

Quantifying the cost of the suspension should also incorporate the cost of implementing ESCAS. While accepting that animal welfare standards are a pre-condition of exporting cattle, there is still the question of whether better ways exist to achieve the requisite animal welfare improvements. Overall we are looking at a cost of well over \$300 million, incurred as a consequence of the trade suspension and the development and implementation of the Exporter Supply Chain Assurance Scheme.

Quantifying the cost of the suspension and the subsequent implementation of ESCAS is not meant to put a price on animal welfare. It does, however, raise the question of whether this money could have been used to further the cause of animal welfare in other ways. There is no doubt that the implementation of a scheme such as ESCAS would have been very difficult to implement without the jolt of the trade suspension. However, the consequences of the market closure would suggest that it has been a very clumsy game changer. In any event, the cost should be regarded as an investment into the future of the industry.

Whilst these arguments are largely academic, the onus is on the industry to use what has happened to underpin the longevity of the trade. The industry should focus on mitigating the risk of a re-occurrence (i.e. ESCAS) rather than building in contingencies to deal with the outcome (i.e. self sufficiency). It should also look to strengthen relationships and encourage greater cross investment in the trade as tangible benefits.

Exploring market options for 'out of spec' cattle in the pastoral areas of Western Australia

Country	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total No. Head
Brunei	767		594			1,231			1,131		1,120		4,843
China	1,767	6,556	3,800	1,939	11,255	2,000		6,794	9,200		3,000	9,715	56,026
Egypt						17,500	15,300						32,800
Indonesia	28,155	32,407	3,756	49,886	22,749	46,729	25,144	12,973	24,176	19,820	9,635	3,151	278,581
Israel	7,310	9,543				8,500	9,000	2,934		12,800			50,087
Japan	2,010		904		1,948	1,860		1,020	1,410	1,019	1,110		11,281
Kazakhstan										1,134	700	295	2,129
Kuwait	60		164										224
Libya								6,900					6,900
Malaysia	1,553		2,942		4,825	4,024	5,449	5,457	50	1,982	1,699	4,800	32,781
Mauritius		194	3,170					1,800		2,061		1,600	8,825
New Zealand											3		3
Pakistan			2,125								2,111	920	5,156
Philippines			2,981		1,966	5,110		8,706			8,516	2,826	30,105
Qatar	342		300		320	193	297	72	400		1,199		3,123
Russia		5,862		13,283					10,871	8,961			38,977
Saudi Arabia								3,550					3,550
Sri Lanka	10		497									1,500	2,007
Thailand							8						8
Turkey				8,400	12,310				16,255		9,377		46,342
UAE	100		100										200
Vietnam					248	248				1,423	1,434		3,353
Total cattle	42,074	54,562	21,333	73,508	55,621	87,395	55,198	50,206	63,493	49,200	39,904	24,807	617,301
Total FOB value ('000)	\$35,151	\$59,004	\$26,851	\$70,398	\$57,390	\$66,390	\$36,040	\$50,730	\$71,462	\$54,941	\$42,925	\$34,414	\$605,697

Source: ABS

Table 3. - Total Australian live cattle exports by country and month in 2012 (MLA LiveLink)

3.2 The Impact at a Property Level

The trade suspension had a dramatic impact on pastoralists at the property level. Price falls were only part of the overall story. During, and soon after the suspension, the concern was not so much what price might be achieved but whether or not sales would be achieved at all. Most property managers sell early in the season to generate cash flow and free up paddock space. Freeing up paddock space enables the appropriate segregation of categories in keeping with the property's management plan. Delays in sales therefore have major repercussions. The lack of cash flow meant that many cases pastoralists were forced to seek emergency finance to meet the costs of mustering but the uncertainty surrounding the suspension meant that banks were reluctant to provide this finance due to concerns over subsequent repayment capacity and receding property values. As a result many pastoralists found themselves in dire financial circumstances.

When trading did resume, producers found that market specifications had tightened and some categories of cattle had become unsaleable. This situation has improved but the intervening uncertainty reduced turnoff, resulting in the heavy grazing of holding paddocks and/or parts of the rangeland. This will have had a knock-on effect on herd productivity that may not be apparent until subsequent seasons.

A further complication was the concentration of market power. Some of the larger, more integrated exporters were typically in a stronger position to implement ESCAS and commence trading. For producers, this meant that the likelihood of achieving sales was linked to the strength of the relationship they had with buyers with market power. While it appears that most pastoralists achieved sales of some sort, the juggling and prioritisation of sales was stressful for all those concerned. In any event, sales only applied to 'in spec' cattle meaning a backlog of 'out of spec' cattle accumulating throughout W.A.'s northern pastoral region.

The effects of the suspension can be demonstrated by utilising a simple model that calculates anticipated cash flow. The model looks simply at cash flow and ignores debt repayment and profit or loss items such as machinery depreciation, depreciation of livestock inventory and/or livestock re-valuations. However it provides a good relative measure gauge the impact of the trade suspension. The model examines sales against variable costs and then deducts fixed costs. The model assumes a "representative" property carrying 10,000 head. Actual costs will vary from property to property but most owners should relate to the numbers shown even if their own numbers differ. There may be differences between properties located in the Kimberley region compared to properties in the southern Pilbara.

Table 4 provides a representation of profitability prior to the suspension of trade to Indonesia. Over 30% of the income is attributable to the sale of 'out of spec' cattle. The buoyant prices and ease of achieving sales generated a healthy gross margin and anticipated cash surplus. The model shows a cash surplus of nearly \$40 per head. This is considered to be the cash flow required to provide adequate profitability (in terms of EBIT and the return on investment and ability to service debt)²⁵. Interestingly, this is also acknowledged by ACIL in the ACIL Tasman study that makes a case for processing cattle in Australia (see page 55 of the ACIL study²⁶).

What is sobering, however, is that a study conducted by Stockdale et al, showed that the actual profitability of both Pilbara and Kimberley properties fell well short of this acknowledged level of profitability²⁷. This study showed a cash flow of approximately \$12 per head (Pilbara) and \$16 per head (Kimberley) when compared on a similar basis. There are several possible reasons for this; firstly, the modelling reflects an optimal turnoff strategy that achieves the maximum possible value for the important categories of turnoff (i.e. an average weight of 350kg for the entire "in spec" turnoff). In practice this would be difficult to achieve. The average price received in the study (prior to the suspension) is lower at 145c/kg compared to the 163c/kg achieved in the model. There are other differences. The cost of production is higher in the study at 130c/kg compared to 100c/kg in the model. This is explained in part by lower productivity (i.e. a branding rate of 56% as shown in the study compared to 64% used in the model) but suggests also that

costs have been underestimated. The level of profitability may therefore be slightly overstated in the model, however, the parameters are realistic and the numbers generated by the model provide a useful reference point by which to make a comparison.

Sales	Number	Live weight	c/kg Lwt Broome	Selling Costs	\$/head (on property)	Total
Cows	627	420	116	\$52	\$435	\$272,745
Heifers (1)	190	350	180	\$52	\$578	\$109,820
Heifers (2)	81	310	180	\$41	\$517	\$41,877
Young Males	1411	350	210	\$51	\$684	\$965,124
Heavy Bulls	72	650	160	\$70	\$971	\$69,912
Total	2381					
Purchases	(83)				\$1500	(\$124,200)
Total Income						\$1,335,278
Costs						
Variable costs	\$67.15	per head				\$671,536
					Gross Margin	\$663,742
Fixed costs	\$27	per head				\$269,991
					Anticipated Cash Surplus/Loss	\$393,751

Table 4. – Anticipated cash surplus/loss prior to trade suspension (in a representative herd of 10,000 head)

Prices immediately after the suspension remained relatively high but weakened over the subsequent 12 months as quotas impacted on market access. The full effects of the trade suspension did not become apparent until some 6-12 months after trade recommenced. The subdued demand softened prices to the point where feeder steers were quoted at 150c/kg live weight ex Darwin and 'out of spec' cattle became difficult, if not impossible to sell. This had a devastating effect on profitability and it can be assumed that most properties would have incurred significant losses (see Table 5) Even when costs are reduced (cutting the cloth to fit) a negative cash flow of \$190,000 is incurred.

What is interesting is that the modelling in the ACIL Tasman (mentioned earlier) suggests a positive cash flow even at these low prices (\$3.75 per head when compared on a similar basis). This is wildly different to the -\$19.00 per head suggested in this study especially since we have established that the assumptions used may overstate (rather than understate) profitability.

Based on these figures, the executive summary of this study makes the rather spurious and seemingly contrived claim that the processing option (utilising a local abattoir) would be more profitable and generate a greater regional gross product than live exports. Opponents of the live export trade repeatedly quote these claims²⁸.

When these claims are more carefully examined the following points become clear.

- Firstly, few, if any properties would be remotely viable at a reference live export price of 150c/kg live weight.

- Secondly, It is relatively easy to manipulate comparisons (and generate impressive multiples e.g. 245% as shown in the ACIL study) when dealing with these low profit parameters.
- Thirdly, the suggestion that local processing would provide more jobs is not substantiated and does not factor any jobs that would be lost due a demise of the live export industry.
- Fourthly, the suggestion that local processing would generate more regional gross domestic product is farcical given that prices have recovered to pre-suspension levels. The current prices dwarf the GDP generated by the prices discussed in the ACIL study.

In summary, the current media environment is rife with misconceptions and unsubstantiated claims. There is also an inevitable carryover of out dated material that is superseded by unfolding events. The findings presented by the ACIL study are a case in point. The case was never strong and has been overwhelmed as the market recovered.

Sales	Number	Live weight	c/kg Lwt Broome	Selling Costs	\$/head (on property)	Total
Cows	627	420	60	no	Market	\$0
Heifers (1)	190	350	100	no	Market	\$0
Heifers (2)	81	310	100	no	Market	\$0
Young Males	1411	350	150	\$51	\$474	\$668,814
Heavy Bulls	72	650	120	no	Market	\$0
Total	2381					
Purchases	(83)				\$800	(\$66,240)
Total Income						\$602,574
Costs						
Variable costs	\$52.32	per head				\$523,167
					Gross Margin	\$79,407
Fixed costs	\$27	per head				\$269,991
					Anticipated Cash Surplus/Loss	-\$190,584

Table 5. - Anticipated cash surplus/loss in the period after the trade suspension (representative herd of 10,000 head)

As prices recover it is possible to quantify the impact of the trade suspension on the individual property. The modelling used in this study suggests that profits would have been eroded by \$0.5M per year on the representative property of 10,000 head. Given that Northern producers were forced to endure nearly two years of subdued prices the overall impact would have been in the order of \$1M per property. This is an extraordinary impost upon a group of essentially innocent participants.

4. Discussion

Although diplomatic relationships with Indonesia were damaged by the trade suspension, the strong commercial relationships remained intact and this interdependency has allowed both countries to renew their commitment to the trade. The suspension has spurred greater cross investment (or vertical integration) between the producing, feeding and processing sectors of the trade and the complementary nature of the business model has been re-affirmed.

In terms of its geography, size and agriculture, Indonesia is ideally placed to partner with the northern Australia cattle industry. It is mutually beneficial for Australia's northern cattleman to encourage the relationship with Indonesia and embrace the partnership rather than develop alternative markets that lessen the dependence with Indonesia. Although market diversification would safeguard northern producers to some extent, it is most likely that Indonesia will command centre stage and remain the most significant market. The challenge is then to 'cultivate' it for maximum mutual advantage.

For this to be achieved, mutual interests must be tabled and duly considered. Indonesia has concerns about fluctuating beef prices and access to affordable beef and food security generally. This insecurity was exacerbated by the extraordinary action of the Australian government suspending the trade on the strength of a television program. A bid for self-sufficiency, in the wake of such action, is a natural reaction and has a great deal of nationalistic appeal. It is important to note that self-sufficiency is not simply a political whim. It is a serious policy that is underpinned by actual legislation that has been tabled and sanctioned by the United Nations and Food and Agriculture Organisation ²⁹. But real food security for Indonesia will only come from eliminating the risk of being denied access to live cattle from northern Australia. Real food security will only result from 'locking in' the complementary business model freeing up Indonesian farmers to produce food that they have a comparative advantage in producing.

Locking in the complementary model involves taking a pro-active stance. Firstly, the risk of a further trade suspension can be minimised by addressing the animal welfare concerns of the Australian public through development and implementation of ESCAS and other globally recognised assurance schemes in customer nations. It is important that the Australian public are properly informed about the features and benefits of the complementary business model.

Secondly, it is important to ensure that politicians and government are informed about cause and effect and the way in which the northern business model sits within the context of global food security. The global food mantra of making "*more food available at an affordable price*", applies succinctly to the live export trade into Indonesia. In this case, it is "*...more beef on the table at an affordable price*".

Thirdly, it is important for all industry participants to take animal welfare concerns seriously and commit to real and ongoing improvement. ESCAS provides a robust platform from which to address animal welfare but the actual assurance does not go beyond meeting minimum standards (in accordance with O.I.E. guidelines). It is strongly recommended that industry move well past this and approach animal welfare more in terms of continuous improvement, both within export / import supply chains and throughout the broader industry.

As mentioned, the recent push for self-sufficiency by Indonesia is principally a reaction to the 2011 trade suspension. More recently, Indonesia has linked the quota system with a reference price scheme that is triggered by critical wet market prices. Reacting to a trigger price alone could lead to all sorts of aberrations. To make a reference price scheme effective, particularly if import specifications are restricted to feeder cattle quotas or import relaxation or tightening, it will need to be predictive (not reactive). This will make it exceedingly difficult to administer. Regulating the importation of slaughter type cattle would have a more immediate effect on prices but such a strategy would forgo the benefits of the feeding enterprise. It also places

additional uncertainty on the feeding enterprise in Indonesia whereby feeders will never be sure when the import of slaughter ready cattle will erode profits.

Despite its good intentions, Indonesia's attempts to manipulate retail prices may fail to serve the country's best interests. The current policy is meant to bring about 90% self-sufficiency but in reality it would result in rapid erosion of the national herd since domestic beef prices, in the absence of imports, would bring non-sustainable numbers of local cattle onto the market. On the other hand, a policy that is based around a self-sufficiency target of 60-70% might provide Indonesia with the capacity to increase its herd size.

There is abundant scope for a more open approach to Indonesia's national beef supply. It is understood that the Indonesian herd has declined by as much as 2 million head since the suspension of trade as Indonesian farmers rush to take advantage of the spike in domestic beef prices. ABARES estimated a 12% increase in beef sales from local cattle (from 411,000 tonnes in 2011 to 459,000 tonne in 2012). The actual size of the Indonesian beef herd is thought to be around 14 million head (down from over 16 million in 2011) (ABARES Sept Quarter 2013).

What beef tonnage the Indonesian herd is capable of supplying on a year-in-year-out basis is difficult to gauge. Unofficial slaughtering does not feature in the turnoff figures and productivity parameters such as calving rates and mortality rates are almost impossible to determine. However, assumptions can be made and some modelling has been undertaken.

ABARES⁸ suggested that Indonesia's demand for beef is on track to exceed 600,000 tonnes given a growing middle class and beef being both available and affordable. Based on the figures provided by ABARES, it would seem that the Indonesian herd is capable of supplying 300,000 tonnes while still growing its herd at a modest rate. This leaves a whopping 300,000 tonne gap to be filled by boxed beef imports or by the importation of live cattle. Even at the peak of both live cattle imports (120,000 tonne of meat equivalent in 2009) and beef imports (120,000 tonne in 2010) there would have still have been a significant shortfall (only having supplied around 240,000 tonne). Current levels of live cattle and meat imports account for only about 100,000 tonne of meat equivalents.

With this in mind it can be seen that the Indonesian policy to restrict imports on the basis of either quotas and/or a reference price denies the reality of both Indonesian demand and its ability to meet this demand. It also walks away from the benefits inherent in the complementary business model. Current Indonesian policy assumes that retail prices can be controlled through import quotas and a reference price scheme. These rumblings suggest that Indonesia may view northern Australia as a giant southern paddock from which it can source cattle whenever it feels so inclined. If this is the case, then much of the mutual benefit will be lost.

Cattle feeding facilities are costly to construct and operate. They also require careful forward planning to ensure optimal feeding regimes that maximise turnoff and feed supply. Under these circumstances, an unpredictable stop-start quota system would be a nightmare for feedlot management. The fodder supplier, who has a small window to optimise the yield versus quality combination, would find it difficult to cope with the vagaries of stop-start regime. A stop-start system is unable to effectively utilise by-products that are the mainstay of many of the feeding programs in Indonesia. A stop-start system requires additional fodder storage facility; high risks of spoilage ties up additional cash and would generally erode many of the benefits of the complementary business model. In fact, it is only the highly complementary nature of the business that allows these price mechanisms to be contemplated.

In Australia too, an unpredictable stop-start system would be very difficult for a vessel owner (or vessel charterer) to manage. It is also very difficult for transporters and the managers of assembly facilities. Producers rely on the timely removal of sale cattle to free-up paddocks to enable an efficient mustering program. Any disruption to this continuous supply creates inefficiencies that add to the cost of production and work against the complementary nature of the model.

For Indonesia, maximum benefit is extracted by high utilisation of the feeding facility, maximum use of available by-products and continuous throughput. In Australia, maximum benefit is derived from an orderly turnoff that enables efficient use of transport services, assembly facilities, shipping and feed suppliers. The aim must be to avoid any unnecessary holding costs either on property and/or in feedlots and assembly centres. Superimposed over this should be a pricing structure that rewards out of season delivery and reflects the difficulties involved. Price movements are important for encouraging "out of season" supply. Thus price fluctuations are actually crucial to the workings of an efficient market.

Whether or not government policy can facilitate these efficiencies remains to be seen. At first glance it would seem likely that both the quota system and trigger price system would distort the free market and invoke inefficiencies.

Moving to the subject of ESCAS, there has been little discussion about unintended outcomes. The most significant of these is prevention of trade, in imported cattle, outside accredited supply chains. It is a closed loop system. The accreditation prerequisite stops the movement or distribution of cattle to outlying areas or to areas experiencing beef shortages (and hence high prices). The unintended outcome from this is that regional areas remain relatively isolated from import opportunities. Alternatively, there is scope for investment initiatives, based on a province-by-province basis, that are consistent with an overall plan for regional development.

With an election pending, the Indonesian government is keen to commit to a domestic agenda. The reference price scheme falls into this category but it might never be tested. A more progressive approach would scrap the reference price scheme and allow feeder and slaughter cattle to enter Indonesia quota free. Implicitly, price would then become the key regulating mechanism. Market-determined prices allows participants to make judgements on the basis of risk and reward and automatically factor in all the extraneous influences that make supply manipulation unwieldy and difficult to implement.

Market relaxation would extract the most from the complementary business model. It would allow full utilisation of the feeding facilities in Indonesia, the best possible utilisation of by-products as feed, the greatest amount of employment and industry to support the feeding enterprise and the most beef available at affordable prices. In Australia, a more open market would facilitate efficient turnoff of cattle and utilisation of paddocks on property, road transport, assembly centres, shipping and all the support industries.

PART B – EMERGING MARKET OPTIONS

1. Introduction

The previous section focused on the impact of the trade suspension on northern cattle producers and Indonesian consumers. This section looks at the current state of the live cattle market and the scope to develop alternatives to Indonesia. In short, a substantial fall in live cattle export prices post-June 2011, and a minor shift (downward) in the exchange rate have acted to bring a range of markets into play that were previously excluded on the basis of price. Despite this, it will not be assumed that market diversification is the best-case scenario. Total dependence on a secure, high priced market could be the most desired outcome depending on the possibility it might be either curtailed or adversely affected by political intervention.

Diversification is of little value if all the markets are lost due to a blanket export ban. On the other hand, diversification can spread risk and create competition, especially if the dominant market is seeking to manipulate prices to its own advantage.

Either way, there are costs associated with market diversification. The establishment of a new market (incorporating the imposition of ESCAS) requires significant up-front investment. In some cases this investment will include new infrastructure, but even without this, the establishment of a formal supply chain entails a significant investment in its own right.

Since the trade suspension, several other South East Asian countries have stepped up to take greater numbers of cattle. Vietnam, Malaysia and the Philippines have all taken significantly larger numbers of cattle over the past two years. Each of these markets has established ESCAS-compliant supply chains. In addition, several other countries are now emerging as potential markets including Thailand and China. Again these markets have adhered to ESCAS requirements. It remains to be seen whether they can retain a market position once prices recover to before-suspension levels.

Israel has also lifted its live cattle imports, partly in response to more available shipping space and partly in response to price. Israel has several ESCAS approved supply chains in place.

2. New and/or Emerging Market Options

The following discussion is focused on market options for live cattle out of NW Western Australia. While the option of selling to a local processor has not yet materialised, there are plans to build abattoirs at Broome and Darwin as discussed later.

2.1 By Destination

Indonesia (live export market)

Description/history

Export/import numbers over recent years are as follows:

2009	772,668 head imported from Australia (MLA LiveLink)
2010	520,987 head imported from Australia (MLA ³⁰)
2011	413,359 head imported from Australia (MLA ³¹)
2012	278,581 head imported from Australia (MLA ³²)
2013	395,000 head imported from Australia (ABC news)

Despite the trade suspension event, Indonesia has emerged as the market most likely to dominant going forward. The Indonesian government has abandoned the quota system in favour of a reference price scheme but how this will work in practice is yet to be seen. In all

likelihood the market will recover in terms of both price and volume and pundits are anticipating that Indonesia will import 600,000 feeder cattle and 120,000 slaughter ready cattle in 2014 (Mason, Beef Central Dec 17th 2013). The Indonesian government intends to issue permits for cattle and beef imports when the domestic beef price for secondary cuts exceeds the reference price of 76,000 rupiah per kg by 15%, and restrict imports when prices fall 5% below this parity price. Prices are currently at somewhere between 95,000 and 110,000 rupiah per kg.

This is a fairly simplistic approach that ignores the significant numbers of cattle already occupying the supply chain at any given time. Effectively, the Indonesian government is juggling the interests of consumers, local producers and the local feeding industry, which is a big task made all the more difficult by a forthcoming election. It is unlikely that the interests of the Australian industry will receive particular consideration although efforts should be made to keep the Australian agenda on the table.

Market specifications

The trade is built around 350kg feeder steers and bulls although 'out of spec' cattle are allowed. A case can be made for removing all restrictions on the importation of feeder cattle but using quotas on slaughter weight cattle to moderate prices through time (in keeping with Indonesian government food security policy).

Market forecast

The economic environment and policy changes in Indonesia are expected to boost Australian imports of live cattle over the next few years.

Long-term outlook

The long-term outlook for this market is very good. While much will depend on how animal welfare issues are addressed in Indonesia, there is a strong likelihood that Indonesia's market share will grow in the same way as it did in the period before the suspension (as shown in Figure 1). The introduction of ESCAS has created an inter-dependency between Indonesian importers and the Australian exporters that has strengthened both relationships and commitment. This augers well for future stability provided the welfare issues are properly managed. Ultimately Indonesia must adopt responsibility for animal welfare through its own legislation and legal enforcement. It should be appreciated, however, that animal welfare is as much a social science as it is a biological science. The challenge going forward will be alignment of Australian and Indonesian attitudes and practices given the cultural differences involved. It will be in the best interests of the industry to move away from the minimum standard inherent in ESCAS to one that focuses on continuous incremental improvement.

Summary

The fundamentals underlying the Indonesian market make it the stand out option now and in the future. Its proximity and the other factors described throughout this report suggest that Indonesia should remain front and centre as a market for live cattle out of northern Australia. The feeder aspects of the model are the most compelling, however, the use of slaughter cattle to periodically moderate domestic beef prices is a real alternative for 'out of spec' cattle from the northern pastoral production system. It is nonsense to exclude these cattle from the marketplace if food security is integral to government policy.

The north of Western Australia has one of the lowest costs of cattle production in the world and Indonesia has potentially the best carcass utilisation in the world. Careful and sustained political and diplomatic pressure will be required to maintain this vision and ensure that 'out of spec' cattle can be included in this market. It will also be sensible to monitor the changes to boxed beef imports, which attract a significant tariff. It should be appreciated that boxed beef is not a direct substitute for live cattle with import volumes tending to track proportionally with live export imports.

Malaysia (live export market)

Description/history

Export numbers over recent years are as follows:

2010	17,085 head imported from Australia (MLA ³⁰)
2011	12,287 head imported from Australia (MLA ³¹)
2012	32,751 head imported from Australia (MLA ³²)
2013	45,705 head imported from Australia (to end November MLA pers. comm.)

Malaysia has a long history in the business of importing cattle. It has been seen (probably unfairly) as the poor relation to Indonesia. It has typically sourced lesser quality cattle at discounted prices but the market itself is actually quite sophisticated. Feeding operations near Johor Baru operate on a similar business model to that used by Indonesia. Several breeder/feeder operations exist on Kota Kinabalu and another large importer operates more as a trading operation.

Malaysia has stepped up and taken bigger numbers in the period since the trade suspension. The importance of the trade with Malaysia should be acknowledged as a valued and respected market even though it is very price sensitive. The implementation of ESCAS may have led to a greater commitment to maintain a market share but this proposition is yet to be tested.

Market specifications...

The specifications are similar to Indonesia at this stage.

Market forecast

Based on recent trends it would seem that the market will continue to grow. Based on previous history, the market can pay the sort of prices that were in place prior to the suspension. ESCAS has again cemented trade relations in a way that may not have occurred previously.

Long term forecast

It is possible that this market may be pushed aside, as happened in the period leading up to the trade suspension, particularly if prices return to 2010 levels. However, strong relationships exist between exporters and importers, which have been strengthened by the introduction of the assurance scheme.

Philippines (live export market)

Description/history

Export/import numbers over recent years are as follows:

2010	16,244 head imported from Australia (MLA ³⁰)
2011	21,708 head imported from Australia (MLA ³¹)
2012	30,105 head imported from Australia (MLA ³²)
2013	19,412 head imported from Australia (to end November MLA pers. comm.)

The Philippines has followed Malaysia's lead and increased imports significantly since the suspension. This market also uses the 'feeder' model, thereby adding value to the cattle following importation, but also imports slaughter ready cattle. No religious imperatives apply to this market but consumers still like their meat fresh with a preference for sourcing product from wet markets. Refrigerated distribution chains are becoming prevalent as the country becomes more westernised. The overall demand for beef combines both boxed beef and live animals. The market is potentially large; at one stage the Philippines took nearly all of Australia's live cattle exports. Due to stiffer competition and higher prices it has had settled for a much smaller share in recent years. At the current (lower) prices the Philippines has again established itself as a market for live export steers and bulls.

Market specifications...

The specifications are similar to Indonesia at this stage.

Market forecast

This market is expected to grow, particularly during periods of weaker cattle prices.

Long term forecast

It is possible that this market may be pushed aside, as occurred during the period before the trade suspension, particularly if prices return to 2010 levels.

Vietnam (live export market)

Description/history

Export/import numbers over recent years are as follows:

2010	1,427 head imported from Australia (MLA ³⁰)
2011	1,276 head imported from Australia (MLA ³¹)
2012	3,353 head imported from Australia (MLA ³²)
2013	54,454 head imported from Australia (to end November MLA pers. comm.)

Statistics show that Vietnam has had a small presence in the market for some time. The same business model is equally valid in Vietnam as it is in Indonesia, although there is less political interference at the current levels of imports. It remains to be seen if the market can retain the same market share when and if prices return to pre-suspension levels. Only one ESCAS supply chain has been approved at this stage. The market in Vietnam has links to China, since China purchases significant numbers of Vietnamese livestock.

Market specifications...

The specifications are aimed more toward cattle of slaughter weights at this stage.

Market forecast

Based on recent trends it would seem that the market has room to grow considerably. It will remain to be seen if it can survive if forced to pay the sort of prices that were in place prior to the suspension. ESCAS has again cemented trade relations in a way that may not have occurred previously.

Long-term outlook

At this stage the market can only be described as promising.

Israel (live export market)

Description/history

Export/import numbers over recent years are as follows:

2010	43,646 head imported from Australia (MLA ³⁰)
2011	53,925 head imported from Australia (MLA ³¹)
2012	50,087 head imported from Australia (MLA ³²)
2013	90,580 head imported from Australia (to end November MLA)

Israel is a significant market, having taken cattle from Australia for a number of years. There are two parts to this market. One is focussed on servicing Palestinians living in the Gaza strip. This market accepts a range of breeds and types. The other is the kosher market that favours euro or euro-cross cattle. An important aspect of these markets is a tariff on animals over 250kg live weight that implicitly encourages the value adding benefits of feeding cattle, not unlike the

Indonesian business model. As a consequence, mostly weaners are imported and taken through to heavier slaughter weights by local feedlots. However, the tariff arrangements do not stop the import of heavier cattle.

The market is quite challenging, having to contend with aspects of local knowledge and has been traditionally linked to business in Jordan, which allows efficiencies in terms of freight and potentially better risk management.

Market specifications

Main specification is for weaned light cattle less than 250kg. The market is currently paying 245c/kg live weight delivered to feedlot (Geraldton) for these cattle. Heavier slaughter cattle are exported to make up the consignment.

Market forecast

Demand has been constant and expectations are for similar volumes in the near future.

Long-term outlook

The Israeli market looks highly suitable for building supply chains and strategic alliances based around staging cattle down from the southern pastoral areas to the south west of Western Australia.

Saudi Arabia (live export market)

Description/history

Saudi Arabia is traditionally a sheep market. Prior to ESCAS Saudi Arabia imported large numbers of sheep from Australia. Small numbers of cattle had often accompanied these sheep voyages. The Saudi government has taken the view that ESCAS is an unwelcome and unnecessary imposition and has refused to accede to the demands of the Australian government. It has, however, expressed the view that it will properly address animal welfare issues by strengthening its own animal welfare legislation.

It is unlikely that Saudi Arabia will become a large market for Australian cattle since most of its beef needs are currently sourced from North Africa. If Saudi does agree to some form of ESCAS in the future it may well become an outlet for certain types of cattle but the option would only be available to those Northern cattle that have been staged down to the SW of Western Australia and added to sheep consignments.

Market specifications

No real market specification. Animals must be sourced from bluetongue free properties.

Market forecast

Uncertain but probably poor.

Long-term outlook

Uncertain but not promising.

Jordan (live export market)

Description/history

Export numbers over recent years are as follows:

2010	19,269 head imported from Australia (MLA ³⁰)
2011	600 head imported from Australia (MLA ³¹)
2012	nil head imported from Australia (MLA ³²)
2013	11,900 head imported from Australia (to end November MLA pers. comm.)

Jordan is traditionally a sheep market. From time to time cattle are imported for either local consumption or transfer to other local markets (for a long time the Israeli cattle were landed in Jordan and crossed the border into Eilat). This is no longer an option under the conditions of ESCAS.

Market specifications

No real market specification.

Market forecast

Uncertain

Long-term outlook

Uncertain

Egypt (live export market)

Description/history

Export numbers over recent years are as follows:

2000	>200,000 head imported from Australia
2001	>200,000 head imported from Australia
2002	145,000 head imported from Australia
2010	56,441 head imported from Australia (MLA ³⁰)
2011	14,589 head imported from Australia (MLA ³¹)
2012	32,800 head imported from Australia (MLA ³²)
2013	nil...

Egypt has typically takes quite large consignments of cattle but shipments have been inconsistent and there have been a series of quite high profile animal welfare incidents. Although these incidents have been serious, there appears to be other commercial factors superimposed that cloud the situation. The main processing facility at Sokhna is quite elaborate and in many ways is 'state of the art'. However, several lapses in management have highlighted very real animal welfare concerns. The market was closed to Australia in response to an earlier incident and only re-opened on the basis of operating under a 'closed loop' system. This provided assurances that animals could be tracked and their welfare supervised. A further incident has led to the market being closed to Australia yet again. It is unlikely that the market will re-open unless a full ESCAS program is implemented and proven to be sustainable.

The market is very price sensitive – possibly because southern Egypt is traditionally supplied (and fiercely protected) by Sudan. As a result, other commercial issues such as HGP have also emerged as a stumbling block, leading to high levels of unpredictability. Nevertheless Egypt has the capacity to take large numbers of cattle, and is particularly suited to the type produced in northern Australia. Over 200,000 cattle were sent to Egypt from Australia in 2000 and 2001 and a further 145,000 in 2002. The trade then closed for a period of about 6 years before re-started on the basis of the closed loop system described above.

Consignments included cattle over a range of weights and types and there is scope to absorb quite large numbers of the "out of spec" cattle described in this report. Further business requires the establishment of a Memorandum of Understanding (regarding ESCAS) but little will happen until the political unrest that is currently gripping the country abates.

Egypt has no approved ESCAS chains at this stage, however closed loop system is in place and the market could be re-instated relatively quickly with an MOU in place and an approved ESCAS. Political unrest would seem to be the major stumbling block.

Market specifications

Consignments generally involve the full spectrum of weights to allow them to reach slaughter weights over time. The market is price sensitive.

Market forecast

Uncertain

Long-term outlook

Uncertain but it is likely that trade will re-open at some time in the future.

Other Middle East (live export market)

There are other markets that occasionally take cattle such as Bahrain, Qatar, Kuwait and the UAE. These countries can sometimes 'mop up' cattle that have been drafted back from consignments destined for SE Asia and are therefore useful but relatively insignificant in terms of size.

Market specifications

No real market specification.

Market forecast....

Uncertain

Long-term outlook

Uncertain

China (live export and potential beef market)

Description/history

China has attracted a lot of interest over the past two years with many delegations and a concerted diplomatic effort. There are many business houses knocking on the door hoping to snare significant orders. The reason for the interest is spectacular increases in beef consumption and even more spectacular increases in beef imports. Beef imports from Australia have increased from 10,000 tonne in 2012 to a forecasted 85,000 tonne in 2013 (ABARES). Australia's share of the overall market (130,000 tonne) is substantial (at least 50%) largely due to the exclusion of Brazilian beef with BSE. There is a trend toward better cuts in line with a growing middle class and westernisation of Chinese diets. There is considerable interest in offal and by-products.

With strong prospects on offer, efforts to establish a feeding model in China along similar lines to Indonesia and other parts of SE Asia have had a good hearing. Protocol issues are being resolved and a strong measured and consistent diplomatic push has shown promise. If a feeder market were to be established in China, the sheer scale of it would quickly reshape the landscape.

Market specifications

No real market specification.

Market forecast....

Uncertain with a current focus on boxed beef.

Long-term outlook

Uncertain but the potential is massive

Thailand (live export market)

Description/history

Thailand has not been a significant market for Australian cattle but there have been occasional shipments of dairy cattle. The recent interest seems to be driven by the prospect of feeding and re-exporting beef to China.

Market specifications

No protocol at this stage.

Market forecast

Uncertain but some activity expected.

Long-term outlook

Uncertain

Russia (live export market)

Description/history

The Russian market is traditionally a market for breeding cattle. It has imposed several barriers to entry including bluetongue and breed type. The market typically takes large consignments of British breed cattle so very few cattle from the northern pastoral areas would meet Russian specifications.

Market specifications

Breeders with specific protocol at this stage.

Market forecast

Uncertain but some activity expected.

Long-term outlook

Shows promise as a potential market for breeder cattle. Unlikely to source any Brahman or Brahman cross cattle....Blue tongue is a limiting factor.

Libya (live export market)

Description/history

Export numbers over recent years are as follows:

2010	19,200 head imported from Australia (MLA ³⁰)
2011	nil head imported from Australia (MLA ³¹)
2012	6,900 head imported from Australia (MLA ³²)
2013	nil...

Libya was a substantial market in the late 1990's after U.K. and Ireland were found to have BSE. Some of the Irish exporters sought to keep access to the market by sourcing cattle from Australia. The market requires access via the Suez Canal, although it is possible to sail around the Cape of Good Hope. Either way, the cost of access is great and the market itself has essentially been lost to competitors. It can sometimes pop-up depending on the activity of some exporters or importers.

Market specifications

Brahman and/or Brahman cross cattle accepted. Mixed weights allowed; protocol is different but not so demanding.

Market forecast
Uncertain

Long-term outlook
Uncertain

Brunei (live export market)

Description/history

Export numbers over recent years are as follows:

2010	3,159 head imported from Australia (MLA ³⁰)
2011	4,813 head imported from Australia (MLA ³¹)
2012	4,843 head imported from Australia (MLA ³²)
2013	6,021 head imported from Australia (to end November MLA pers. comm.)

Brunei has been a consistent buyer of Australian cattle over a long period of time. It has seen fit to comply with the conditions of ESCAS.

Market specifications

Brahman and/or Brahman cross cattle accepted. Mixed weights allowed...protocol not so demanding.

Market forecast

Consistent demand set to continue.

Long-term outlook

No change anticipated.

Broome Abattoir

An abattoir is nearing completion near Broome in the West Kimberley region of Western Australia. This private sector investment is supported by a conglomerate of 8 properties in the East and West Kimberley and Goldfields regions of Western Australia and is deserving of serious consideration.

The decision to proceed with the abattoir in the West Kimberley follows two pre-feasibility studies (Stage I & II) completed by MEATENG and SD & D Consulting (Strategic Design and Development Pty Ltd)³³. These studies were part funded by the Rural Industries Research and Development Fund (RIRDC). Of concern is the authors' opinion that: "*it is unlikely that the facility would be economically (sic) viable since the returns on capital are unlikely to be high enough to warrant the risks involved (seasonality, competition with the live trade, foreign exchange fluctuations etc).*"

The report goes on to suggest that a new abattoir would only be viable if certain conditions prevailed. First, the abattoir would need to be part of an integrated supply chain that would more or less assure supplies of slaughter cattle. Whether or not local producers would be prepared to commit to supply contracts remains a contentious issue. Even if the conglomerate offered its entire turnoff (reputedly 35,000 head) the abattoir's viability would still confront a gap of at least 25,000 head that would have to be sourced from other pastoralists.

The pre-feasibility report suggested that the new facility would not succeed if it was treated as an 'option of last resort', behind the live trade. But producers who committed turnoff to the slaughter facility regardless would forgo income if better prices could be achieved through the

live trade outlets. The income forgone could be viewed as part of the initial investment into the facility and the supply chain depending on the chances of payback over the medium or long term. Judgement-calls of this nature will vary from person to person and will include assessing whether or not the live trade can overcome its animal welfare issues (perceived or otherwise), the medium term demand for food (in terms of how much and from where) and structural changes within the industry.

Cattle producers will always be price sensitive; there is not much point assuming a cattle input price that makes the abattoir viable but is non-competitive in the broader market. From the point of view of global food security, the complementary business model that has been built around the live trade to Indonesia makes the most sense because it makes beef available to those most in need at the lowest possible price.

Summary (this applies to all onshore processing)

Immediately following the suspension event and the subsequent accumulation of sale cattle in the far north, it was possible to mount an argument for beef processing in the far north. At the time, proposals to build abattoirs at Darwin and Broome were advanced^{34, 35}. While on-shore processing should avoid the animal welfare risks associated with live export, there are numerous disadvantages that have always plagued the viability of northern beef processing. Open competition means that young cattle will continue to find their way into the live export trade. In this event, most of a local abattoir's intake would be confined to cull cattle, with relatively low meat quality. Such product would be locked into the low-value grinding market. Also it is likely that the abattoir intake will be relatively more seasonal thereby raising average costs per unit of output. The unescapable conclusion we come to is that northern Australia's comparative advantage lies in breeding cattle, not processing them. This suggests that the economic future of the northern cattle industry is fundamentally tied to live exports (especially into Indonesia) and this is where the industry's policy making should focus. Given the prerequisites of free trade and strong dialogue, scope exists to cultivate a commercial relationship between the cattle industries of Australia and Indonesia that is highly complementary.

Darwin Abattoir

The much-debated Darwin abattoir is mooted for construction by Australian Agricultural Company on the Livingstone site approximately 50km south of Darwin. The first stage, acquisition of the property and basic earthworks has been completed. The second stage will proceed after capital of \$299M is raised. The facility, when completed, will have the capacity to process up to 200,000 cattle per year.

The findings of the two prefeasibility studies (Stage I & II) completed by MEATENG and SD & D Consulting (Strategic Design and Development Pty Ltd) that assessed the feasibility of an abattoir in the North West of Western Australia, apply equally to the Darwin abattoir. As with the Western Australian proposal, concerns regarding throughput might be overcome through vertical integration but this could result in opportunity losses if the live trade rebounds. On the other hand, rapidly expanding demand for boxed beef in China suggests that the landscape is far from predictable.

Presumably the abattoir will target 'out of spec' cattle such as cull for age or cull cows and/or heavy bulls. However there may be a host of other possibilities. Pastoralists in the north would welcome a local market for slightly older cattle at higher slaughter weights, particularly if this strategy was shown to be as profitable as turning off feeder cattle into the live trade. The modelling shows the importance of finding a market for 'out of spec' cattle is one of the greatest determinants of profitability.

There is no doubt that the construction of an abattoir near Darwin would be an enormous plus for the northern pastoral industry generally. But whether it can be operated sustainably is an

entirely different matter since it would struggle against the complementary business model involving live exports to SE Asia.

Harvey Beef and other southern abattoirs

The southern abattoirs have been a marketing option for northern cattle producers throughout. Freight costs, of course, are the biggest obstacle. Fitzroy Crossing is 2,400 km from Harvey. At a freight rate of \$1.50 per deck per km this represents \$3,600 per deck (or \$144 per head depending on weight). This cost is prohibitive for many categories of livestock and there remains the animal welfare issue associated with long distance transport of livestock. Southern abattoirs are happy to take most categories of livestock but set an appropriate price. The relatively poor eating quality of many northern cattle limits utilisation of the product.

3. Alternative Turnoff Strategies

Prior to the suspension, turnoff from the north was focussed on producing feeder cattle for markets in S.E. Asia. Each of these markets competed for the feeder steer/bull category on the same basis and this represented the predominant turnoff strategy. A smaller demand for "out of spec" cattle (heifers, cows and herd bulls) provided an outlet for these categories.

Throughout this period, Israel took significant numbers of weaner cattle less than 250kg. This option is better suited to Pilbara (or Southern Pilbara) pastoralists. Since the trade suspension, Israel has stepped up to take bigger numbers and this represents a turnoff alternative.

In the wake of the suspension, several new markets have emerged within the S.E. Asian region (more specifically Vietnam) and these markets have shown a willingness to 'slaughter-ready' cattle, and as Indonesia has returned to the market, it also has shown more interest in 'slaughter-ready' cattle. This is consistent with its "reference price" policy that aims to moderate retail prices in the wet markets. It would seem that this policy will endure and Indonesian authorities have indicated that up to 30% of imports will be allocated to slaughter ready cattle in 2014. This will provide a market for many 'out of spec' cattle, but it also creates the option for northern pastoralists to move to a higher age turnoff strategy.

Turnoff options for female cattle remain more challenging. There is scope for most categories to be sold within the framework of existing markets, but turnoff strategies should balance market options and price against policy based on productivity. Several different female turnoff strategies are evaluated.

The range of strategies is therefore as follows:

3.1 Male Turnoff Strategies

As explained earlier in the study, the sale of feeder cattle provides the best fit for the northern production model. A weaner turnoff strategy is compared to this and a breakeven price is determined. Similarly a heavier slaughter weight turnoff strategy is explored.

Feeder steer or bull

The feeder weight (up to 350kg) turnoff strategy suits the extensive production system practiced in the north of Australia. It corresponds to the 'before market suspension' turnoff strategy. Turning off a lighter, unfinished steer copes well with adverse seasons since there is no requirement to finish animals. It allows Indonesia (or other South East Asian countries) to use their comparative advantage in feeding cattle (through the extensive use of by-products). In theory this should generate the best possible price for this sale category.

Although quality control exists, the specification is reasonably broad with an emphasis on weight rather than carcass characteristics or eating quality. Producers can generally count on selling the entire age group provided they do not become too heavy, with only a few cattle remaining on property looking for an alternative market. Modelling, however, does not necessarily pick up all the nuances of a property operation and the profitability in the model may be overstated. For example, it may be very difficult for a property to achieve an average of 350kg if this weight is also the maximum cut-off weight. Nevertheless the modelling is important for the purposes of comparison.

Table 7 outlines the profitability of this option based on a live export price of 210c/kg ex Broome. This price generates a strong cash surplus of nearly \$40 per head (or adult equivalent) which for most producers would represent an acceptable return on investment^{26, 27}.

Note that it is assumed all categories find a market except for cull for aged cows. Alternative female turnoff strategies are not compared at this point.

The feeder turnoff represents the midpoint between the two other strategies.

Sales	Number	Live weight	c/kg Lwt Broome	Selling Costs	\$/head (on property)	Total
Cows	627	420	116	\$52	\$435	\$272,745
Heifers (1)	190	350	180	\$52	\$578	\$109,820
Heifers (2)	81	310	180	\$41	\$517	\$41,877
Young Males	1411	350	210	\$51	\$684	\$965,124
Heavy Bulls	72	650	160	\$70	\$971	\$69,912
Total	2381					
Purchases	(83)				\$1500	(\$124,200)
Total Income						\$1,335,278
Costs						
Variable costs	\$67.15	per head				\$671,536
					Gross Margin	\$663,742
Fixed costs	\$27	per head				\$269,991
					Anticipated Cash Surplus/Loss	\$393,751

Table 7. – Anticipated cash surplus/loss when adopting a feeder cattle turnoff strategy (in a representative herd of 10,000 head) as described earlier.

Weaners

Whilst there will always a market for young cattle in the market place, the greatest benefits are likely to be achieved by selling them directly to exporters servicing the Israeli market. The Israeli market requires weaned cattle that are less than 250kg. Strong prices are paid for this category of turnoff.

One of the risk factors associated with a weaner turnoff strategy is a larger breeding herd, which increases the demands on management. It also increases operating costs due to the high fixed and variable costs associated with running breeders. It is also likely that poor seasons will have a greater impact on profitability. Conversely, where higher tiered management is achieved, the greatest gains will be seen in herds with a relatively larger breeding herd. The benefits of higher tiered management are discussed later under female turnoff strategies ³⁶.

Note that the modelling calculates that a price of 267c/kg live weight delivered Geraldton would generate the same level of profitability as the feeder turnoff strategy. This might be slightly lower for properties in the Southern Pilbara. This price is achievable and it should be possible to set up repeat business and supply the market on a regular basis.

The weaner turnoff strategy suits properties that struggle with achieving minimum annual weight gains, but the overall result will depend on the productivity gains within the breeding herd. With a larger breeding herd there will be more cow or heifers to sell and profitability will be affected by the prices achieved for these categories.

Since the weaner turnoff strategy runs a larger breeding herd with a corresponding increase in the sales females and herd bulls, this turnoff strategy relies heavily on finding a market for the 'out of spec' categories of sale cattle.

The weaner turnoff strategy also suits the low input harvesting type operation, which may be able to operate with reduced costs, although it is likely that productivity would also be lower. Under this type of operation, a price of 245c/kg might provide an adequate return.

Note that this comparison is made on the basis of a herd of 10,000 head. A small adjustment is required to base the comparison on adult equivalents (AE). This is small since the higher equivalent given to breeding cattle is offset by the lower average weight of weaners.

Sales	Numbers	Live weight	c/kg Lwt Broome	Selling Costs	\$/head (on property)	Total
Cows	730	420	116	\$51	\$436	\$318,280
Heifers (1)	221	350	180	\$52	\$578	\$127,738
Heifers (2)	94	310	180	\$41	\$517	\$48,598
Weaners	1694	250	267	\$111	\$556	\$942,711
Heavy Bulls	84	650	160	\$70	\$970	\$81,480
Total	2823					
Purchases	(97)				\$1500	(\$144,900)
Total Income						\$1,373,907
Costs						
Variable costs	\$71.17	per head				\$711,698
					Gross Margin	\$662,209
Fixed costs	\$27	per head				\$269,990
					Anticipated Cash Surplus/Loss	\$392,219

Table 8. – Anticipated cash surplus/loss when adopting a weaner turnoff strategy (in a representative herd of 10,000 head)

Slaughter Ready

A slaughter weight turnoff strategy appeals to many pastoralists as it allows them to get the most value from a calf on the ground by reducing the cost (per unit of live weight sold) associated with the breeding herd. Reducing the number of breeders in the herd provides the most drought proof strategy and it takes the pressure off herd fertility. Importantly, however, producing slaughter weight cattle usually requires the property have a capacity to fatten, something many northern properties do not have.

Recent Indonesian interest in slaughter ready cattle has rekindled interest in this strategy. It could also find a niche market in the new abattoirs. The ability to pay an appropriate price for this category will depend on the abattoir's ability to control costs and on sell product. The modelling shows that a price of 185c/kg live weight is required to make this strategy as profitable as a feeder steer/bull turnoff.

The 'slaughter ready' turnoff would represent the most risky option at this time due to the uncertainty surrounding the markets. Changing to this strategy also takes time, with a possible delay in cash flow as the herd adjusts.

Sales	Numbers	Live weight	c/kg Lwt Broome	Selling Costs	\$/head (on property)	Total
Cows	551	420	116	\$51	\$435	\$239,685
Heifers (1)	167	350	180	\$52	\$578	\$96,526
Heifers (2)	71	310	180	\$41	\$517	\$36,707
Slaughter Wt	1204	470	185	\$60	\$809	\$974,036
Heavy Bulls	64	650	160	\$70	\$971	\$62,144
Total	2057					
Purchases	(74)				\$1500	(\$110,400)
Total Income						\$1,298,698
Costs						
Variable costs	\$64.18	per head				\$641,827
					Gross Margin	\$656,871
Fixed costs	\$27	per head				\$269,983
					Anticipated Cash Surplus/Loss	\$386,888

Table 9. – Anticipated cash surplus/loss when adopting a heavyweight turnoff strategy (in a representative herd of 10,000 head)

3.2 Female Turnoff Strategies

The lack of a reliable market for cull for age cows has meant that many producers run cows in the herd until they die on the range. Re-emergence of markets for surplus females might modify this practice, at least to the point that cull for age cows represent the smallest possible component of the cow herd and therefore sales. The earliest point that females could be removed would be as female weaners. It is unlikely that producers would take up this option but the sale of heifers (either mated or unmated) is obviously a real consideration. This needs to be balanced against the need to remove non-performing cows from the herd at a later time.

Historically, producers have been good at identifying so called barren (dry and non pregnant) cows from the herd but more sophisticated strategies can and are being adopted. For example wet (non pregnant) cows that have wean-able calves at foot can also be identified. Once these calves are weaned, the cows contribute very little for a substantial period of time meaning they should be considered as candidates for sale (subject to body condition). Older cows that have insufficient body condition can be spayed and sold once they reach a saleable weight and body condition.

Current markets specify that slaughter cattle should be non-pregnant and this limits market options, however, more recently Indonesia has indicated that it wishes to import significant numbers of breeding cattle. Strategic sales of pregnant cows or heifers then become an option.

A feature of the extensive management practiced in many of the pastoral areas is year round calving. Controlled mating is not usually undertaken but out of season calves are often segregated for special treatment, resulting in higher production costs. It is possible to identify

and sell cows that calve out of season to avoid the costs of supplementation and/or the higher mortality rate associated with these cattle.

The more cows that are sold strategically from the breeding herd the greater the requirement for heifer replacements (i.e. fewer heifer sales can be afforded). Additionally, although heifers seem relatively easy to get into calf in the first place, they are very difficult to get pregnant after their first calf. High-tier management is required to address this problem and must be factored into any strategy that involves removing cows from the breeding herd³⁶. Once this is addressed however, then further strategies can be contemplated. Many producers generally favour reducing the age of turnoff and this can be extended right to the point of selling younger cows with calves at foot (possible re-mated). These cows would probably be staged down to southern markets - especially in good seasons. Other producers may wish to retain these cows and take advantage of their future productivity within their own enterprise.

Many of the higher tier management strategies require pregnancy diagnosis and the ability to 'mother up' to support the corresponding decision-making. This applies in particular to segregation practices based on lactation status and stage of pregnancy.

3.5 Best Bet Turnoff Strategies

The period since the trade suspension has seen a remarkable turnaround in fortunes. Not long after the suspension, and around the time this study was commissioned, there were few selling options and live export prices were low. Finding sale options for all the possible categories of turnoff was urgently needed at that time to avoid serious financial hardship. As events have unfolded, the live export market has recovered with Indonesia again taking centre stage. Furthermore, the new import policy includes slaughter-ready cattle providing new selling options. New and emerging markets also appear to be willing to take most sale categories meaning that there are no categories of sale cattle that are not in some demand. Recent information about Indonesian import policy would suggest that import permits for slaughter cattle will be restricted and issued to coincide with festival periods or periods of peak demand. Some pastoralists might be set-up to time their turnoff of slaughter type cattle to meet periods of suspected peak demand but trying to second-guess where the market is going can often end in frustration. While Indonesia would appear to be the major and most promising market, cattle will always go to the highest bidder. In essence there will be one export price and countries such as Vietnam, Philippines and Malaysia will only do business if they can match or better what Indonesian importers are offering.

Immediately following the suspension, the North had large numbers of sale cattle in holding paddocks and attempts to find the best market for these cattle was entirely logical. As the situation returns to some sort of normality it is more important to settle upon a turnoff strategy that best suits an individual property. The market is now quite fluid and dynamic with a best price for each sale category being traded between producers, exporters and destinations in response to the efficient operation of the free market. The northern pastoral areas of Western Australia are well serviced by livestock selling agents who provide price information as well as co-ordinate the assembly of consignments.

4. Staging

Staging refers to the movement of cattle toward a terminal market in geographic stages. This may be part of an integrated operation with transfer pricing or no change of ownership or part of a strategic alliance where ownership changes at each stage along of the supply chain. An example of staging would be where weaners are staged south for subsequent export to Israeli and/or feeding on to slaughter weights. This could have some appeal to Pilbara pastoralists and farms in the Geraldton hinterland. Shortly after the suspension when prices were low and

outlets scarce, staging was a serious option. But with northern offer prices now on the way up, 'staging south' is unlikely to be competitive.

The profitability of staging relies on a feeding profit (value of gain less costs of gain) and/or a trading profit (favourable change in the value of the original body weight of the animal). In general terms, the cost of gain is considerably lower in the pastoral areas and when the live export trade is in full swing the highest price is also offered in the North. There is also less risk in a commercial herd that runs fewer breeders as part of the overall herd make-up. The exception may be to take advantage of "out of season" prices and/or when staging cattle into the Israeli young cattle market. Nevertheless each proposal should be costed on its merits.

An initiative based on the principle of staging is outlined by the Mingenew – Irwin Farm Management Group³⁷. Amongst others, the stated benefits (to pastoralists) of staging cattle into perennial pasture in the Mingenew Irwin included reduce dry season risk, less shrinkage to port, out of season premium opportunities and quicker turnover.

Another example of staging would be where dry but pregnant cull for age cows (or heifers) are staged toward a different region for subsequent sale as PTIC cows with calves at foot. This may create value for cows that would otherwise be worthless. The sums would need to factor in transport as well as the potential value of the calf. This concept was also mentioned by the Mingenew – Irwin group but more in regards to managing late calving cows back into sync with a growing season.

There have been times when northern cattle have been opportunistically fed in feedlots in the south west of W.A. The economics of this practice have been inconsistent and it has not become an established practise.

5. Strategic Alliances

Strategic alliances have been promoted to Northern cattle producers from time to time over the past 15-20 years. To date, there are no examples of any formal strategic alliances that have survived the test of time, although loose arrangements exist between some industry participants. While the concept of alliances has many appealing features, there are aspects that can undermine arrangements in practice such as the seasonal nature of turnoff (where early turnoff frees up paddocks and assists the mustering program) and the inevitable number of competing interests that might exist in an alliance. One could conclude that in a *status quo* situation, most businesses are better to keep their options open and act independently (and co-operatively when it suits).

However, the suspension event was far from *status quo* and the industry was being pulled in a bewildering number of directions. Many of those directions are start-ups that beg for industry support of the type that strategic alliances can offer. Most market start-ups require a critical mass especially if they are associated with big infrastructure projects. Some assurance of supply can be helpful so that a short-term or one-off strategic alliance may have medium to long-term industry benefits. Production and marketing are increasingly viewed in terms of a supply chain thereby creating interest in formal alliances.

As a definition, strategic alliances are agreements whereby each party commits certain resources to achieve a common set of objectives. Through strategic alliances, companies can improve competitive positioning, gain entry to new markets, supplement critical skills and/or share the risk or cost of major development projects. To form a strategic alliance, companies should:

- Define their business vision and strategy in order to understand how an alliance fits their objectives.

- Evaluate and select potential partners based on the level of synergy and the ability to work together.
- Develop a working relationship and mutual recognition of opportunities with the prospective partner.
- Negotiate and implement a formal agreement that includes systems to monitor performance.

Strategic alliances can assist entry to new markets, inhibit competitors, reduce costs through economies of scale, justify access to new technology and improve research and development efforts.

In the context of what has been discussed throughout this paper, the scenarios that apply to the northern pastoral areas of WA would be the establishment of an abattoir in the West Kimberley, access to an established market (or the establishment of a new market).

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