

**Live Trade Animal Welfare Partnership  
2009/10**

**Final report - Public Release**

**Middle East livestock slaughter and  
handling improvements**



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## Executive Summary

The Middle East region is a vital group of live export markets for Australia. High standards of animal welfare throughout the entire live export chain including post arrival are essential for long term trade sustainability. Infrastructure improvement in the feedlot and processing sectors contributes significantly towards welfare improvement. Repair and replacement of existing infrastructure and design and construction of new equipment and facilities in conjunction with education and training has resulted in major welfare gains. This project has added value to previous initiatives and investment, and has continued to address the highest priority welfare issues that provide the greatest return on investment. This is typically within the markets where the highest throughput of Australian livestock occurs.

By targeting specific welfare issues and locations, this project has effectively improved animal welfare in key livestock facilities including ports, feedlots and slaughter houses. This has been achieved by raising the standard of animal handling, transport and processing practices. It has involved infrastructure improvements and animal handler training and the trialling of pre-slaughter stunning of sheep and cattle.

The major components of this project have included:

- Assessment of existing animal handling practices and processing infrastructure
- Repair and replacement of existing infrastructure
- Design and construction of new equipment and facilities
- Better utilisation of improved infrastructure through provision of animal handling training
- The trialling of animal stunning in collaboration with importers.

**In Kuwait**, substantial infrastructure improvements have been delivered in 2 slaughter houses. This has included the design and construction of 14 slaughter positions (yards, races, ramps and tables) that have removed the practice of dragging of sheep and poor slaughter techniques and two new yard/race and table configurations, which cover all Australian sheep processed there.

**In Doha** a new V-restrainer and slaughter table were built, delivered and installed which have improved the pre-slaughter handling and slaughter of sheep. Concurrently, improvements to the lairage, yards and races were also delivered which has complemented the immediate pre-slaughter and slaughter improvements.

**In Kuwait and Qatar**, assessments were conducted to review the slaughter facilities and processing of Australian cattle. These assessments identified areas that required improvements to deliver better animal welfare outcomes. The improvements required included upgrades, repairs and maintenance of lairage facilities, discharge ramps, laneways and installation of restraining boxes. These improvements will be conducted in the 2010/11 LTWAP programs for the three countries.

**To improve discharge** a new multi-deck port trailer has been developed and constructed and will allow faster discharge of sheep from vessels; thus reducing the level of handling; truck loading time and subsequent period involved in transferring animals from ship to feedlot. The benefit will be maximised in summer when environmental factors are more challenging and has the potential to cut 30% off the time taken to discharge a vessel thus improving animal welfare.

**In Bahrain** significant infrastructure changes have been made to improve animal welfare and to facilitate the trialling of electric stunning of sheep. Stunning is a sensitive issue in the region and initial discussion have been held to begin facilitating a trial.

Across all projects and locations, there was strong support for all welfare improvement initiatives in this first phase of the 3 year project. A continuing shift in commercial operators' attitudes and actions is occurring which is significant in the MENA region.

## Objectives

Improve animal welfare in key Middle East livestock market facilities (i.e. ports, feedlots, slaughter facilities) by improving animal handling, transport and processing practices through infrastructure improvements and animal handler training. Where feasible and acceptable under local religious interpretations, encourage the trial and adoption of pre-slaughter stunning of sheep and cattle.

## Milestone 1 - Sheep

### **Activities**

- Identify key facilities in Kuwait and Qatar processing Australian sheep and assess their infrastructure and animal handling practices.
- Deliver improvements according to the recommendations of the assessment process.
- Provide animal handling training to management and operational staff to improve animal welfare and support the use of improved infrastructure.
- Assess impact of improvements on production system and identify likely barriers to adoption.
- On conclusion of the project, commission independent assessment of welfare standards from port to point of slaughter.

### **KPI**

- Key facilities identified and assessed
- Assessment identifies, prioritises and recommends achievable improvements required to assist facility in meeting OIE standards; and provides a schedule of material costs and time estimates for improvements.
- Improvements delivered to slaughter houses that promote better handling and slaughter of Australian sheep, including ramps, races and slaughter tables.
- Volume of sheep processed through traditional versus improved facility/methods assessed.
- Management and operational staff understand the efficiency and welfare benefits of improved infrastructure and handling/slaughter practices.
- Local “champions” that can be relied upon to sustain improvements are identified and supported.
- Independent assessment conducted and areas requiring additional investment documented and prioritised.
- Final report explains how the milestone’s activities have improved animal welfare outcomes.

### **Project outcomes**

Assessments have been conducted at key abattoirs in Kuwait and Qatar to review the slaughter facilities and processing of Australian sheep and/or cattle. Following the assessments, recommendations have been made to deliver improvements, via better handling at the facilities, in-line with OIE Guidelines. These improvements include:

- Improved races – yard panels and lane-ways from holding pens to the slaughter floor. This has prevented animals being individually handled to the point of slaughter, including dragging and trussing of limbs. The race will allow animals to be individually moved from the pens to the slaughter point.
- Ramps from ground level to table height that again allow the animal to run up onto the slaughter table rather than being dragged and poorly processed.

- Slaughter tables may be installed, depending upon relevant permissions, which allow individual animals to be processed off the ground.

## **Kuwait**

### **Assessments**

There are five slaughter facilities within Kuwait City that process Australian sheep. All of these facilities have been reviewed by an Australian point of slaughter expert and an assessment made of the infrastructure and animal handling practices and identification of animal welfare issues.

Only one of the slaughter houses is owned and operated by the Kuwait Municipality. The other 4 are owned by the Government but run on a B.O.T. basis – Build, Operate and Transfer and are usually leased to a commercial contractor for 20 years. The largest facility is owned and operated by Kuwait Municipality and has traditionally processed the largest quantities of sheep (60%), the next largest facility process a significant quantity of Australian sheep (20%).

The remainder are processed at the third largest facility (15%), with 2 additional facilities filling the balance. The third largest facility is a modern slaughter house with V-restrainers for the sheep and a restraining box for cattle. It currently processes sheep imported from Australia and standards have been found to be acceptable. The other facilities are all traditional (Bedouin style) operations with no automation or mechanical enhancements to assist processing efficiency, hygiene or animal welfare processes.

The assessments involved reviewing the entire establishment and identifying areas that require improvements to deliver better animal welfare outcomes. The key areas assessed are:

- Discharge facilities leading into the lairage
- Lairage facilities, infrastructure and access to feed and water
- Raceways leading to the slaughter floor
- Slaughter floor infrastructure and equipment
- Suitability for new or additional restraining boxes
- Slaughter staff assessed on skill and ability to use slaughter facilities correctly.

### **Issues identified**

A common feature of traditional slaughter that occurs throughout the Middle East is the process of slaughtering and skinning livestock on the floor. There is limited infrastructure in the form of lanes or lairage pen. This commonly has several associated welfare issues that accompany the floor operation. Animals are often herded into areas where they stand and are randomly selected and slaughtered in front of other animals, despite this conflicting with some religious requirements. Another concern is the poor handling that is often associated with the ground level processing. Animals are more likely to be dragged from the lairage area to the point of slaughter and these practices are inconsistent with OIE guidelines.

There are other non-welfare (human health) issues that also accompany the floor slaughtering and dressing procedure, specifically meat hygiene and food safety considerations. Food safety is more likely to be compromised from having lines of carcasses positioned next to each other on the floor where they can be more easily be

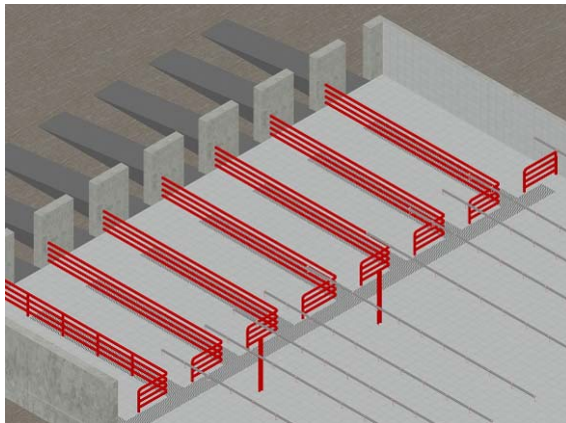
contaminated by people, water, dirt and other animals. Significant benefits stand to be realised by shifting the floor slaughtering and skinning operation to a raised area and straight onto a rail dressing system.

### **Implementation of improvements**

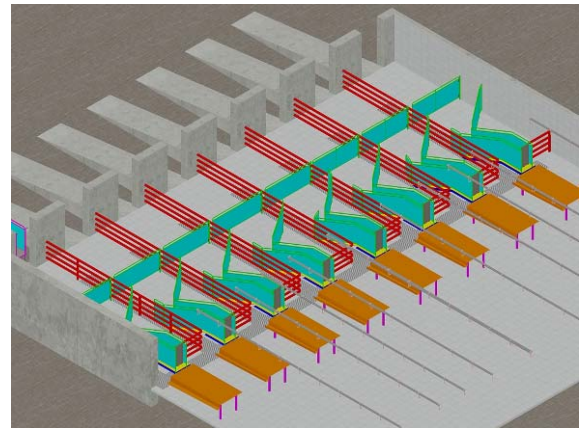
Following these assessments, the 2 largest abattoirs were identified as the highest priority locations. This was based on the animal welfare issues identified and that these facilities process the majority of the Australian sheep in Kuwait.

At these locations the current infrastructure layouts were reviewed and improvements were recommended. Detailed engineering drawings were prepared illustrating the required improvements to infrastructure.

#### **Abattoir 1 before and after AutoCAD designs**

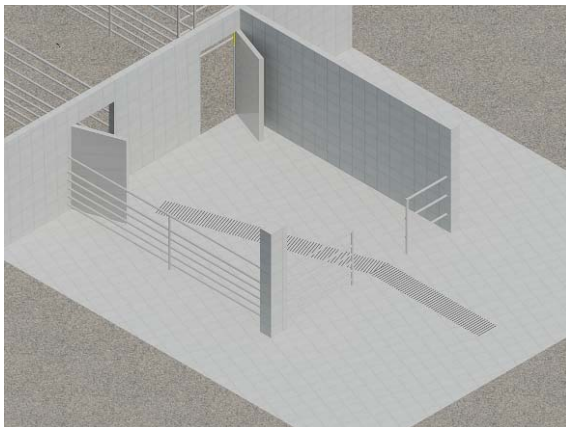


**Abattoir 1 Before**

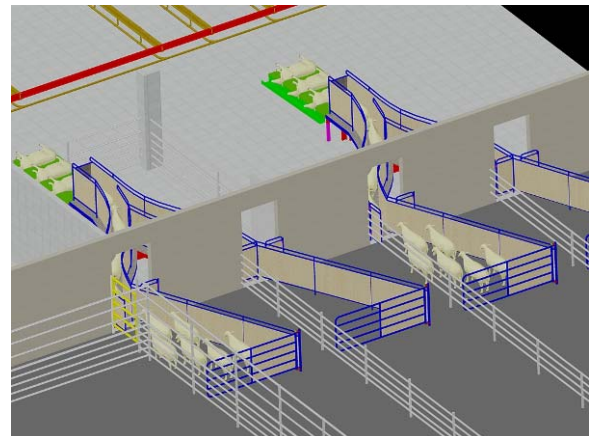


**Abattoir 1 After**

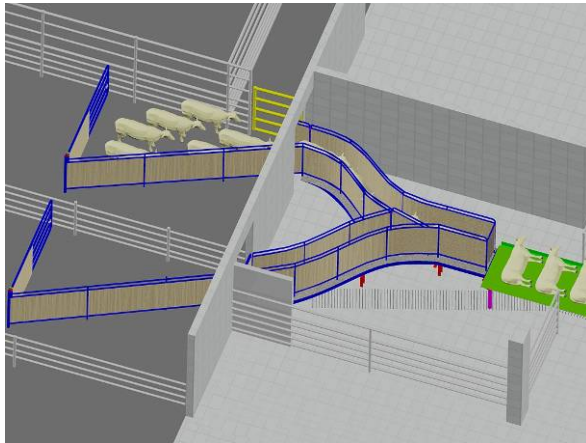
#### **Abattoir 2 before and after AutoCAD designs**



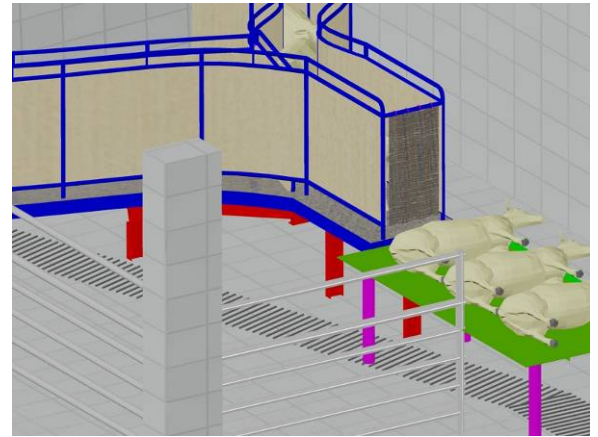
**Abattoir 2 Before**



**Abattoir 2 After**



**Abattoir 2 After**



**Abattoir 2 After**

The Livestock Export Program (LEP) has previously delivered one sheep slaughter table to Abattoir 1. The installation of this table was completed through facilitation at the abattoir level with the local staff and slaughterman. There has been some lack of engagement in the use of the table by the slaughterman as they prefer to continue with existing practices. In order to implement the recommended upgrades for this milestone, higher level engagement from the Kuwait Government and Ministry Officials was required. Joint funding was also sought from the Kuwait Government to assist in the delivery of the improvements. This funding support should be forthcoming in the 2010/2011 and 2012 fiscal years after being budgeted in Municipality annual plans.

The first step was to engage with the Deputy Director General for Animal Wealth, Public Authority of Agriculture Affairs and Fish Resources (PAAAFR) and Minister of Public Works and State Monitor of Municipal Affairs. Meetings were held where presentations were made including footage of the issues and detailed explanations of the work required to improve animal welfare outcomes.

The recommendations were accepted and agreed to make the improvements for both sheep and cattle at the two abattoirs (initially) and then further support to make similar improvements at two additional slaughter houses based on success in the first phase.

Abattoir 1 is the only slaughter house fully owned and operated by the Municipality. The other facilities operate as B.T.O. (Build, Transfer, Operate) where commercial operators take the lease and independently operate the facility. At these locations, the Ministry is required to liaise with the commercial operator to seek agreement in order to facilitate improvements.

A local engineering works was contracted to supply materials and fabricate/construct the new facilities. An Australian slaughter expert with many years of experience in the Middle East & Asia, has been in the region the entire period to oversee the construction and installation of the equipment.



## Abattoir 1

In order to ensure that there was 100% uptake by the slaughterman of the new improvements to the facility, it was decided to implement installation of the new equipment at all 14 slaughter ramps within a short time frame. This would ensure that the slaughtermen would have no choice but to use the new equipment. There would be no physical alternative to the yards, races and ramps in processing the sheep. The photo to the right shows the holding and catching pens prior to any work commencing. The pens were simple in design and based on the system of catching sheep and dragging to the point of slaughter.



This was a major undertaking requiring intense preparation prior to the installation and then efficient coordination of the work on the only day of the week that processing does not occur – Friday. It was important not to interrupt production and to ensure the transition went through smoothly. This approach has been a great success and in the first week of the new system, no Australian sheep have been processed on the ground. As the new ramps and tables have been installed, ongoing training and education in using the new equipment has been delivered.

The slaughter house vets have been empowered by the change process and have taken the opportunity to enforce higher standards of hygiene within the slaughter hall. No sheep are allowed to be processed on the floor whether they be Australian or otherwise, so the benefits have extended to sheep from other countries. The changes have also been embraced by the slaughter house management, who have ensured that complaints from butchers have been appropriately dealt with.



The photographs above illustrate the infrastructure improvements that have taken place and sheep processing in action under the new arrangements.

As with any major change, the process hasn't been without resistance and the slaughtermen and others involved in dressing the carcasses have found the new system challenging and much slower than the routine process they had become accustomed to. This resistance will be ongoing until new approaches are developed and accepted that match the throughput of the previous system. Fine-tuning the workflow so that it facilitates a quick transfer of the carcass from the slaughter table to the rail will be critical in demonstrating that the new process can be as quick and quicker than ground based processing.

### **Training**

The slaughter consultant has been on-the-ground providing training in the new techniques required to make the system work. He has established strong working and personal relationships and as a former slaughter butcher, has the respect of the large number of butchers. He has a practical, hands-on approach that commands attention and results in better practices being adopted. Within the confines of this project, significant animal welfare gains have been achieved. Ideally, Kuwait will move closer towards designing and constructing brand new meat processing facilities. In the interim, the best-bet changes are in modifying existing infrastructure and installing new equipment that is still within the boundaries of being acceptable.

Despite the challenges that are expected in the coming months, it's anticipated that new approaches will be embraced by the slaughtermen and dressing labourers to make the system work effectively and hopefully within their production expectations. Ongoing support will be provided within LTAWP projects in 2010/11 to ensure momentum is maintained and expertise developed to cope with the infrastructure improvements. Strong confidence is held in the Kuwait Municipality's commitment to the new slaughter and handling procedures.

### **Abattoir 2**

The next facility to be upgraded has a different arrangement whereby a contractor has the long term lease from the Government to operate the slaughter house. After obtaining signed agreement from all parties, materials were purchased and fabrication undertaken according to the LEP's designs which have been illustrated previously in this report. The fabrication of the ramps and panels occurred concurrently with abattoir 1 ramps and panels, but they could not be installed until abattoir 1 upgrade was complete. Installation work commenced at abattoir 2 on 18<sup>th</sup> June. This was once again on a Friday to minimise any disruption to production.

The slaughter hall configuration is different from the multiple slaughter bays at abattoir 2, so it required a different design but application of the same principle. This involved a design that better facilitated movement of the sheep into the slaughter hall and then removed the poor practice of dragging sheep to the point of slaughter. Another common practice was sheep arriving into the slaughter hall trussed and in wheelbarrows. Under the new infrastructure and handling practices, this will no longer occur.

On Friday 18<sup>th</sup> and Saturday 19<sup>th</sup> June, one of the two ramps was installed. A new entry passage was made into the slaughter hall and the ramps and panels installed, as illustrated by the photographs below. The second of the two ramps was installed on Sunday 20<sup>th</sup> June and over the following days, they were both concreted so as not to interrupt normal slaughter operations



Installation of the equipment pictured on the right was welcomed by the contractor who had been to abattoir 1 during the week previous to inspect the new facilities and operations in the Government operated facility.

The contractor has requested that similar race, panels and table be constructed for the local sheep as well. This may be able to be facilitated with the support of the contractor and the LEP.



## **Qatar**

There is one major livestock importer in Qatar, which owns and operates the major commercial feedlot and processing facility and is also responsible for administering the public slaughter houses in Qatar. The feedlot and abattoir are located amongst a larger livestock souq which also has the two public abattoirs for large and small animals including sheep, cattle, goats and camels. Most are from countries other than Australia but some Australian livestock are processed in these facilities in peak periods.

Virtually all of the Australian livestock exported to Qatar are processed through the commercial facility. The commercial abattoir is more than 15 years old and at the time it was commissioned, a V-restrainer was installed to carry sheep through the final stages prior to processing.

Following a review of the facility, it was found that due to the incorrect alignment and entry of the motorised V-restrainer, the majority of sheep needed to be manhandled into the entrance, often resulting in poor handling practices and reduced welfare. This was a major concern with respect to non-compliance with OIE standards. There was also no horizontal or vertical adjustment to the restrainer. This mechanical function was corroded and had seized over time due to lack of maintenance. Smaller sheep also slipped through the V section itself.

As a result of the assessment, two areas requiring improvement were the lairage area and the point of slaughter for sheep and cattle. A review of one of the public slaughter halls has also been completed to improve the facilities through to the point of slaughter by inclusion of a raceway and better yards.

To support the installation of the new V-restrainer, improvements to the lairage area adjacent to the slaughter hall were also implemented. A new race and yard configuration will ensure the sheep receive appropriate treatment by the stockmen as they will be able to flow smoothly from the pens to the restrainer. This will also be backed by more stock handling training of the newly employed staff.

The project was slightly delayed whilst waiting for manufacture and shipping of the brand new V-restrainer and slaughter table which arrived on the 16th June. Following customs clearance, the new V-restrainer and associated yards were partially installed at the commercial abattoir in Doha.



The photograph above to the far left shows the newly arrived V-restrainer only hours after it was delivered. Over the week commencing 20<sup>th</sup> June, the V-restrainer was commissioned and linked with the sticking table and new race system. Part of the additional work being undertaken is concerned with preparing a better race way for the new cattle restraining box. This is located near the sheep processing area as well.

## KPI Report

| KPI  | Activity  | Status    |
|--|---|-----------|
| Key facilities identified and assessed   | Assessment conducted of lairage, laneways and slaughter floor at abattoirs in Kuwait and Qatar. | Completed |
| Assessment identifies, prioritises and recommends achievable improvements required to assist facility in meeting OIE standards; and provides a schedule of material costs and time estimates for improvements. | Assessments conducted with recommendations on required improvements prepared.                   | Completed |
| Improvements delivered to slaughter houses that promote better handling and slaughter of Australian sheep, including ramps, races and slaughter tables.  | Improvements constructed and delivered  | Completed |
| Volume of sheep processed through traditional versus improved facility/methods assessed.   | 100% of sheep are processed now through the improved facilities.                                | Completed |
| Management and operational staff understand the efficiency and welfare benefits of improved infrastructure and handling/slaughter practices.   | Detailed consultation conducted with management and training delivered                          | Completed |
| Local “champions” that can be relied upon to sustain improvements are identified and supported.  | 100% support from slaughterhouse vets, management, and contractor.                              | Completed |
| Independent assessment conducted and areas requiring additional investment documented and prioritised.   | Additional recommendations documented and issued  | Completed |
| Final report explains how the milestone’s activities have improved animal welfare outcomes.  | Final report submitted  | Completed |

## **Milestone 2 - Cattle**

### ***Activities***

- Identify key facilities in Kuwait and Qatar processing Australian cattle and assess their infrastructure and animal handling practices.
- Deliver improvements according to the recommendations of the assessment process.
- Provide animal handling training to management and operational staff to improve animal welfare and support the use of improved infrastructure.
- Assess impact of improvements on production system and identify likely barriers to adoption.
- On conclusion of project, commission independent assessment of welfare standards from port to point of slaughter.

### ***KPI***

- Key facilities identified and assessed.
- Assessment identifies, prioritises and recommends achievable improvements required to assist facility in meeting OIE standards; and provides a schedule of material costs and time estimates for improvements.
- Improvements delivered to slaughter houses that promote better handling and slaughter of Australian cattle including ramps, races and slaughter boxes.
- Management and operational staff understand the efficiency and welfare benefits of improved infrastructure and handling/slaughter practices.
- Local “champions” that can be relied upon to sustain improvements are identified and supported.
- Volume of cattle processed through traditional verse improved facility/methods assessed.
- Independent assessment conducted and areas requiring additional investment documented and prioritised.
- Final report explains how the milestone’s activities have improved animal welfare outcomes.

### ***Project outcomes***

Assessments have been conducted at key locations in Kuwait, Qatar and other markets to review the slaughter facilities and processing of Australian cattle. Following the assessments, recommendations have been made to deliver improvements, via better handling at the facilities, in-line with OIE Guidelines. These improvements include:

- Improved races – yard panels and lane-ways from holding pens to the slaughter floor. This will improve the handling of the animals to the point of slaughter.
- Restraining boxes may be installed, depending upon relevant permissions, which allow individual animals to be processed off the ground.

The assessments involved reviewing the entire establishment and identifying areas that require improvements to deliver better animal welfare outcomes. The key areas assessed are:

- Discharge facilities leading into the lairage.
- Lairage facilities, infrastructure and availability to water and fodder.
- Raceways leading to slaughter floor.
- Slaughter floor infrastructure and equipment.



- Suitability for new or additional restraining boxes.
- Slaughter staff assessed on skill and ability to use slaughter facilities correctly.

A key issue being considered in the assessments and the proposed improvements is the type of restraining box and other infrastructure to be installed. Industry has previously installed restraining devices in the Middle East which have not been fully utilised or poorly maintained. Part of the issue with these previous improvements has been the complexity of the restraining device that has been installed. The LEP has been developing a new design restraining box as part of its Research and Development program. The key elements of this new design has been to deliver a low cost, simple design that allows animals to be processed humanely. The new design will be able to be used as manually or via hydraulics depending on the level of sophistication required at the slaughter house. The hydraulic box has been trialled in early June 2010 and is now ready for construction. This is the preferred model for the Middle East slaughter houses.

Another important component of the assessments is to engage the local operator and seek initial permission from the abattoir owners / operators to make infrastructure changes. Detailed drawings of the site will be completed. The infrastructure upgrades will then be installed.

From this review a number of required infrastructure improvements have been identified.

## **Qatar – Commercial private abattoir**

### **Observations**

There is one major livestock importer in Qatar, which owns and operates a feedlot and processing facility. The feedlot and abattoir are located amongst a larger livestock souk which also has two government owned and operated abattoirs. Most of the Australian livestock exported to Qatar are processed through the commercial privately owned facility. The facility has the capacity to process about 50 head per day, at the time of inspection the through put was approximately 10 per day.

The cattle feedlot pens are 150 metres from the slaughter floor entrance and are connected via a laneway. Pen maintenance is poor with leaking taps and broken hinges and the existing laneway and loading ramp leading to the existing restraining box need repairs. These issues all add to the stress of the animal entering the restraining box.

### **Improvements required**

Upgrades, repairs and maintenance to the cattle pens is required. The laneway from the pens in the lairage to the restraining box needs improvements. A new restraining box can be positioned in the same position as the old box. All these improvements would dramatically reduce the stress in the cattle. They would assist in better handling and management of the cattle.

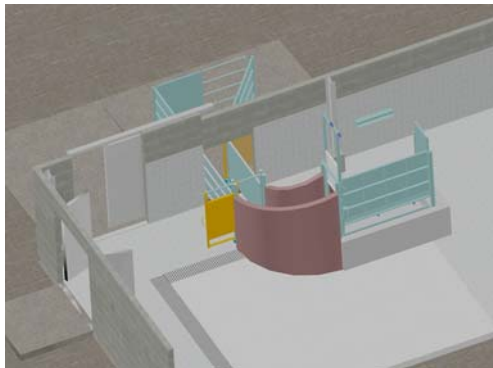
## **Qatar – Public slaughter house**

Working in conjunction with the commercial operator the LEP has reviewed the public facility. The commercial operator is committed to ongoing improvements in animal welfare in Qatar, and is seeking greater input and control of the public souq and

abattoirs in addition to their commercial operations. If successful, this will significantly increase the LEP's ability to deliver major gains in these facilities as well.

The public abattoir is located within a large livestock souq. It is a traditional slaughter hall with no cattle handling facilities or restraining box infrastructure. Animal welfare issues in this facility result from the use of traditional slaughter methods with the roping and tripping of cattle to get them in a recumbent position for slaughter.

While limited Australian cattle are processed in this location it is an important strategic location to ensure that welfare standard meet appropriate levels. Improvements required include discharge ramps for the unloading of cattle on trucks and appropriate lairage facilities with a lane way from the lairage to a new restraining box.





## Kuwait

As part of the sheep improvements reviews of two locations have been identified as processing Australian cattle and prioritised as requiring improvements. These facilities are both traditional slaughter floors with little or no infrastructure. Both facilities have no cattle restraining infrastructure. Animal welfare issues in these facilities result from the use of traditional slaughter methods with the roping and tripping of cattle to get them in a recumbent position for slaughter.

Both locations require significant improvements with the development of appropriate discharge ramps, lairage facilities, laneways and the installation of restraining boxes. These will be conducted as part of the 2010/11 LTAWP programs.

## KPI Report

| KPI  | Activity  | Status     |
|--|---|------------|
| Key facilities identified and assessed   | Assessment conducted of slaughter facilities in three key Middle East countries Kuwait and Qatar.         | Completed  |
| Assessment identifies, prioritises and recommends achievable improvements required to assist facility in meeting OIE standards; and provides a schedule of material costs and time estimates for improvements. | Assessments conducted with recommendations on required improvements prepared.                             | Completed  |
| Improvements delivered to slaughter houses that promote better handling and slaughter of Australian cattle, including ramps, races and slaughter tables.   | This project focused on assessments not delivery of improvements. Budget was directed to sheep facilities | Incomplete |
| Volume of cattle processed through traditional versus improved facility/methods assessed.  | 100% of cattle are processed through traditional methods.   | N/A        |
| Management and operational staff understand the efficiency and welfare benefits of improved infrastructure and handling/slaughter practices.   | Detailed consultation needs to be conducted with management and training to be delivered                  | N/A        |
| Local “champions” that can be relied upon to sustain improvements are identified and supported.  | Still to be identified.   | N/A        |
| Independent assessment conducted and areas requiring additional investment documented and prioritised.   | Still to be assessed.   | N/A        |
| Final report explains how the milestone’s activities have improved animal welfare outcomes.  | Final report submitted  | Completed  |

## Milestone 3 – Stunning Trial

### **Activities**

Implement a trial of pre-slaughter stunning of sheep and cattle.

### **KPI**

- If feasible, pre-slaughter stunning trials of sheep and cattle conducted in region, and staff trained in use of stunning equipment.
- Trial outcomes detailed in the final report including: benefits of stunning; process of engagement with religious authorities, local government authorities, slaughter facility management and staff; an overview of the trial outcomes; suitable locations identified for further stunning trials in the future; analysis of factors affecting the successful adoption of stunning across the region in the future, including recommendations for addressing the factors identified.
- Final report explains how the milestone's activities have improved animal welfare outcomes.

### **Project outcomes**

Within the Middle East region, Bahrain was selected for stunning trials due to strong relationships with key personnel at the abattoir and the MLA office based in Bahrain. Following the success of the implementation of stunning in Jordan at the Amman Municipal Abattoir, industry wrote to Princess Alia seeking assistance in our objective to expand stunning in the region. The first step was to obtain the Fatwa that was being used in Jordan to allow stunning. The Fatwa has now been received and provided to Bahrain abattoir staff.

The next step was to obtain a stunner. Through our relationship with Termet, a stunning equipment supplier, a hand-held Matador stunner was donated to the industry with all necessary spares and approximately 5,000 shots. The equipment has been delivered to Bahrain with a consignment of sheep from Australia.

After in-principal support from Senior Management, the initial phase involved taking the Abattoir Manager and Assistant Manager to Jordan to inspect the stunning operation of sheep and cattle first hand. Jordan is really the only country in the region that has introduced stunning and this is partly due to the involvement of Princess Alia, at least at the Municipal slaughter houses. Stunning has been applied at the large privately owned and operated slaughter house for many years, but this has not been publicised and promoted. The head of the Bahrain abattoir and his second-in-charge visited Jordan in early February. The trip was a great success with both observing electrical stunning in sheep. Following the inspection of the Jordan electrical stunning, a path way is now available to progress trialling of electrical stunning of sheep in Bahrain.

As already indicated, part of the demonstration in Jordan involved stunning sheep and observing its reversibility (*pic left*). As a general observation, there seems to be a more open acceptance of the concept of electrical stunning of sheep than of the more physically confronting stunning of cattle with a mushroom head stunner.

Sheep physically appear more calm (*pic right*) and the process is relatively quiet and peaceful. Stunning is a sensitive issue in the region and the steps taken as part of this project allow for the introduction of a trial when all the local officials are comfortable with the process.



The slaughter house component of the project was set up for the trialling of stunning in the last 2 weeks of June 2010. The V-restrainer which has been idle for the past 3 years received new parts and was renovated to a virtually new and fully operational state, like the one pictured below. Parts arrived from Perth on a livestock vessel on 19th of June and an engineer from the supplying company (FEA) has repaired and renovates the V-restrainer to its former operational condition.



Additionally, infrastructure changes were made to the slaughter line to facilitate the re-introduction of the V-restrainer. At this stage, these changes will benefit animal welfare on their own without stunning, and will allow for the introduction of stunning when the local authorities give approval.

It should be noted that the major issue associated with stunning is not the act of stunning itself, but the doubt surrounding its effect. That is, whether or not the process of stunning kills the animal

Once electric stunning of sheep is trialled, it should lay the principle foundation for moving onto the trailing of cattle stunning. It will be important to progress this project with the sensitivity it requires and deserves and to progress at a pace that ensures an achievable and sustainable outcome.

## KPI Report

| KPI   | Activity   | Status      |
|---|--|-------------|
| If feasible, pre-slaughter stunning trials of sheep and cattle conducted in region, and staff trained in use of stunning equipment.   | Bahrain abattoir selected for pre - slaughter stunning trials. Management has inspected stunning operations in Jordan. | Completed   |
| Trial outcomes detailed in the final report including: benefits of stunning; process of engagement with religious authorities, local government authorities, slaughter facility management and staff; an overview of the trial outcomes; suitable locations identified for further stunning trials in the future; analysis of factors affecting the successful adoption of stunning across the region in the future, including recommendations for addressing the factors identified. | The stunning trial was delayed due local sensitivities.  | In progress |
| Final report explains how the milestone's activities have improved animal welfare outcomes.   | Final report submitted   | Completed   |

## **Milestone 4 – Animal Handling Training**

### ***Activities***

Conduct animal handling training in key facilities in the Middle East region covering ship discharge, trucking, loading and unloading at feedlot facilities, handling at feedlots and unloading at slaughter facilities.

### ***KPI***

- Animal handling training conducted
- Training activities and outcomes detailed in final report, including recommendations for improving training in the future
- Final report explains how the milestone's activities have improved animal welfare outcomes.

### ***Project outcomes***

Background - Education and training programs of a practical nature require ongoing reinforcement to achieve adoption of desired practices. Ongoing reinforcement is crucial in achieving sustainability of outcomes. This fact has been observed in markets where more regular continued training support and activities over a three year period. Training recipients in the MEA region at all levels can be effectively communicated with and have the capacity to grasp the key concepts of the training principles. A continued presence will ensure that these principles are reinforced and applied.

Activities to date - In response to the need for improved knowledge and better practices in handling techniques, the Education and Training project has provided targeted training and accreditation in the areas of port discharge; feedlot receipt, land transportation, ruminant nutrition, abattoir development and animal welfare training and awareness.

The project has actively involved companies importing Australian livestock into the Middle East and Africa, including shipboard crew; port stevedores; truck drivers, managers and personnel from feedlots and abattoirs. In addition, key decision makers from shipping and feedlot companies and government officials were invited to participate in the training activities.

Recognising that each country requires a different focus, a customised approach was employed based on (i) the major weaknesses of existing practices, and (ii) the willingness of appropriate industry groups and authorities to accept various education and training initiatives.

The following locations have received training:

- Bahrain
- Qatar
- Kuwait
- Dubai

Ongoing training continues in feedlots, abattoirs and port facilities in these key importing countries. This work builds upon a continuum of stock handling training that has been intensified in the past five years and co-funded by Australian industry and the Australian Government. Core elements of the training promote practices that result in the low stress handling of livestock combined with better knowledge and understanding of the bigger-picture issues relating to poor handling techniques. Relatively low numbers of people actually come into (handling) contact with the majority of Australian sheep and these people are relatively easily targeted and trained with the existing infrastructure and company training and development programs.

## KPI Report

| KPI   | Activity  | Status    |
|---|---|-----------|
| Animal handling training conducted  | Training in animal handling has been conducted in four locations.   | Completed |
| Training activities and outcomes detailed in final report, including recommendations for improving training in the future | Training activities and outcomes detail in final report. Ongoing training continues in the key importing countries to train people further in low stress handling of livestock. | Completed |
| Final report explains how the milestone's activities have improved animal welfare outcomes.                               | Final report submitted  | Completed |

## Milestone 5 – Port Discharge Race - Jeddah

### Activities

- Design and implement port discharge race system for Jeddah port that facilitates the smooth and efficient discharge of livestock.

### KPI

- Improved discharge race system for Jeddah Port implemented
- Final report explains how the milestone's activities have improved animal welfare outcomes.

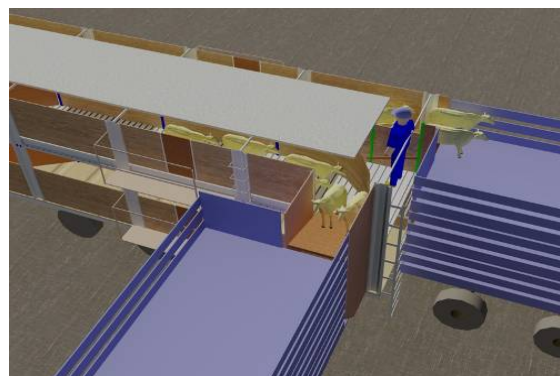
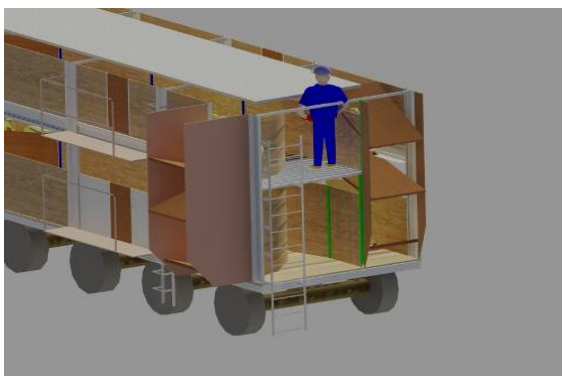
### Project outcomes

Meetings with the key importers and an inspection of the port facilities were conducted in January 2010. The LEP's Middle East consultant engineer has been scheduled several times to meet with a designer in Jeddah to design a new triple deck ramp for the Jeddah port. The new ramp will be modelled on and use the experience gained from implementation of a proven fixed system in one of the receival feedlots in Saudi Arabia.



A design and planning visit was conducted in March and preliminary plans drawn. Subsequent delays have been experienced for the follow up trip prior to the planned June completion date. The base trailer has been purchased and now the internal fitting of the trailer needs to be constructed and completed.

The design of the trailer was completed in close consultation with a leading importer in the region and LEP engineering and livestock handling staff. The design allows for rapid vessel discharge onto 2 trucks, with estimated loading times of 3-4 minutes via 3 decks being loaded simultaneously. This is in contrast to around 9 - 12 minutes with a single deck system. Local construction workers have contracted to build the trailer under the supervision of Australian consultants.



## KPI Report

| KPI   | Activity  | Status    |
|---|---|-----------|
| Improved discharge race system for Jeddah Port implemented                                  | The discharge race system has been designed and constructed | Completed |
| Final report explains how the milestone's activities have improved animal welfare outcomes. | Final Report submitted                                      | Completed |