

# AID-FOR-TRADE CASE STORY

AUSTRALIA

## AUSTRALIAN FUMIGATION ACCREDITATION SCHEME

Date of submission: 31 January 2011

Region: Oceania

Country: Indonesia, Malaysia, Thailand, India, PNG, Philippines (China and Vietnam planned for near future implementation)

Type: Programme

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## EXECUTIVE SUMMARY

The Australian Fumigation Accreditation Scheme was established in 2004 to reduce ineffective methyl bromide fumigations performed offshore for Australian quarantine purposes. Ineffective methyl bromide fumigations result in increased cost to the exporter, higher quarantine risk and unnecessary use of methyl bromide for re-treatment. AFAS is a system of accreditation for offshore providers of fumigation services. It works with partner governments and overseas providers. AFAS includes a strong monitoring and compliance component to track failure rates and conduct audits.

Through the program of technical assistance, capacity building and recognition of accreditation, the cost of meeting Australia's quarantine requirements is reduced. AQIS estimates that \$4.6million has been saved in avoided re-treatment costs alone. These costs would have otherwise imposed an additional transaction cost to trade between Australia and participating partners. The program is currently being expanded to cover heat treatment, ethylene oxide, container cleanliness and inspection activities of vehicles and machinery.

## ISSUES ADDRESSED

- The Australian Fumigation Accreditation Scheme (AFAS) was established by the Australian Quarantine Inspection Service (AQIS) in 2004 to reduce ineffective methyl bromide fumigations performed offshore for Australian quarantine purposes.
- This followed frequent occurrences of consignments entering Australia that had been inadequately fumigated, thus required re-treatment once onshore.
- Re-treatment slows processing times, contributes to product deterioration and is costly to the exporter (both in terms of time and treatment costs).

## OBJECTIVES PURSUED

AFAS is a system of accreditation for offshore providers of fumigation services. It comprises three approaches to achieving the objective of improving the ease of complying with quarantine regulations, reducing re-treatment rates and facilitating trade.

- AFAS works with governments to increase their capacity to effectively regulate quarantine treatment,
- AFAS trains and accredits providers, and maintains a register of certified fumigators to improve the standard of fumigations performed by Australia’s trading partners. This reduces unnecessary use of methyl bromide and aims to minimise the number of re-treatments and occurrence of overdosing, and
- AFAS monitors compliance, conducts audits and ensures certification is accepted by Australian quarantine regulations to facilitate the flow of goods through Australian ports.

Through the program of technical assistance, capacity building and recognition of accreditation, Australia provides assurance to exporters in partner countries that their products will be accepted into Australia if they meet AQIS requirements.

## DESIGN AND IMPLEMENTATION

- The seven countries with the highest methyl bromide treatment failure rate were visited to establish the causes of fumigation failures. These were identified as inadequate training of commercial operators and regulators, substandard equipment and facilities and poor regulatory control.
- The Australian Agency for International Development (AusAID) along with other stakeholders provided funding to develop and implement a training program based around implementation of the AQIS Methyl Bromide Standard in the countries of concern.
- Countries participate in the program by entering into a negotiated non-binding bilateral arrangement with Australia.
- Participating countries are responsible for all aspects of registering and regulating commercial fumigators, and for conducting ongoing training activities after the initial training has been completed by Australia.
- Australia maintains a central data base and internet website listing the status of registered fumigators.

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### Training:

AFAS has three separate training programs that are delivered in the participating country:

- **Fumigation:** A training course was developed covering the theoretical and practical aspects of methyl bromide fumigation, including risk management, equipment, monitoring, occupational health and safety and record keeping. It is provided to treatment providers and government officials.
- **Audit:** After identifying deficiencies in audit practices early in the program, a training course was developed that covers the fundamental components of auditing, auditing of methyl bromide treatment and the establishment of audit programs.
- **Train-the-Trainer:** A number of officers who have successfully completed both the fumigation and audit training are selected to receive ‘Train the Trainer’ training prior to the full implementation of the program, which equips them with the skills and materials to continue training within their country.

All of the training programs include theoretical and practical assessments. Participants who fail to complete the assessment are required to undertake a reassessment in order to obtain accreditation.

### Verification:

- An annual joint system review is conducted in each participating country to provide verification of the continuing success of the program and opportunities for improvement. The reviews cover fumigation practices and record keeping management of a selection providers and the regulatory

agency.

- Australia monitors fumigation failure rates through random and targeted interceptions of treated goods. Treatment failures are reported to the overseas government agency for investigation and response.

## PROBLEMS ENCOUNTERED

- **Industry Commitment:** In many instances, implementation of the AFAS program requires a significant change in commercial practice and an increase in regulatory control. There were instances where national fumigator representative organisations attempted to impede uptake of the program due to concerns that some companies would gain commercial advantage. This has been resolved by ensuring that treatment providers are included in discussions at an early stage of program development.
- **Resources:** A number of countries lacked appropriate training facilities and in some cases funding had to be sourced to purchase major items of equipment (e.g. fumigation sheets) to enable training to be undertaken.
- **Personnel and equipment:** To obtain AFAS registration companies are required to have appropriate numbers of trained and accredited personnel, and the equipment necessary to perform and monitor fumigations. This can be expensive and time consuming, so phase in periods were introduced.
- **Facilities:** To conduct successful fumigations, a fumigation site requires a smooth concrete or bitumen ground surface and for the containers to be situated away from offices, houses and other workers. These were generally not available. AQIS encouraged Government authorities and commercial operators to develop suitable sites and provide heavy lifting equipment.

## FACTORS FOR SUCCESS/FAILURE

- **Clearly defined Responsibilities:** The AFAS program is based around a clear Methyl Bromide Fumigation Standard that sets out a practical methodology, and bilateral arrangements that give responsibility for management to the overseas government authority. While AQIS provides initial training and ongoing assistance, its major role once a program is in place, is to provide feedback on performance. Responsibility for training, registration and investigation requires the overseas government authority to engage and, as their capabilities develop, so does pride in their achievements.
- **Commitment from the Overseas Government Authorities:** Program success requires commitment of the overseas government authority. Experience has shown that this develops when they understand the initial problem, the options for resolving that problem and the ongoing support that is available. AQIS has found the use of statistics on failure rates and inter-country performance comparisons helps to gain initial commitment and enables countries to evaluate performance over time.
- **Practical training and use of experts:** Every effort has been made to make the training practical and relevant. The involvement of specialist fumigation consultants was fundamental to the early success of the AFAS program as they were able to bring knowledge and practical experience to negotiations with governments and fumigators as well as to the training itself.
- **Continuous and broad engagement:** Engagement continues post implementation through Joint System Reviews, periodic official visits and the holding of annual international AFAS regulator meetings. AQIS has recognised provision of training will not in itself achieve an improvement in fumigation performance. It has been necessary to look at the environment in which fumigators operate and regulation occurs and provide assistance and guidance where necessary.

## RESULTS ACHIEVED

AFAS has resulted in improved fumigation practices since its inception. Annex A shows some of the changes

in treatment failure rates for six countries. Most demonstrate a substantial improvement despite poor data collection in the base year.

The trade facilitation effect of these improvements is substantial. AQIS estimates that \$4.6million has been saved in avoided re-treatment costs. These costs would have otherwise imposed an additional transaction cost to trade between Australia and participating partners.

Some 8000 consignments have avoided re-treatment due to improved offshore fumigation practices. These consignments would otherwise have experienced an additional delay in Australian ports, which would have resulted in reduced quality and shelf life of perishable goods.

Other results — including environmental and health benefits — are included in the detailed list below.

- **Reduced re-treatment:** While there is variation between countries AQIS has typically seen failure rates drop to 0.05 per cent. In terms of numbers some AFAS countries have dropped from an average of 35–40 failures per quarter recorded at the Australian border, to 5 or less.
- **Reduction in Methyl Bromide use:** The implementation of AFAS has significantly reduced the use of methyl bromide, a major ozone depleting substance, through effective fumigation practices that reduce over-gassing and the need for re-treatments. The savings in methyl bromide use since introduction of the program are estimated to be in the order of 12 tonnes.
- **Improved occupational health and safety:** Occupational health and safety is an issue which was largely overlooked by the offshore fumigation industry. AQIS has increased awareness of the importance of occupational health and safety especially in regard to personal protection equipment. Fumigators have increased awareness of the risks they are exposing themselves to and the actions required to ensure they perform fumigations in an environment that is safe for themselves and the community.
- **Number of countries participating in AFAS:** AFAS has been fully implemented in 6 countries (India, Indonesia, Malaysia, Papua New Guinea, Philippines and Thailand) with a further 2 countries (Vietnam and China) in the final stages of implementation. AQIS is currently negotiating with a number of additional countries who are interested in implementing AFAS including Sri Lanka, Chile, Peru and New Zealand

## LESSONS LEARNED

A number of lessons have been learnt (and are still being learned) from the implementation of AFAS.

- **Relationships:** From the outset it is important to build strong relationships with partner agencies. Development of personal relationships and using the same training team in each country builds levels of mutual understanding and facilitates implementation of the program.
- **Continuous Engagement:** Continuous engagement with the partner country post training and implementation is essential to the ongoing effectiveness of the AFAS program. Joint System Reviews, formal meetings, email contact and personal visits provide opportunities to obtain and respond to partner country views on the program and provides opportunities for continual improvement, support and maintenance of relationships.
- **Language differences:** Language differences are largely overcome by translation of all training materials and Standards and by the use of interpreters. Although it is tempting to minimise costs by using English speaking government officers or fumigators, trained interpreters will usually provide the best results.
- **Cultural differences:** Cultural differences have been found to impact on the development of relationships and the operation of the program itself. The program was modified to adapt to cultural differences that impact on its uptake and performance. The audit training program modified following an observation that the cultural practice of unquestioningly accepting another individual's word, makes effective auditing difficult in some countries.

- Program flexibility: The program must be flexible enough to allow for country to country variation. In the case of AFAS there are variations in the bilateral arrangements, and in management and operational styles.

## CONCLUSION (applicability to other programmes)

The AFAS program methodology is highly adaptable to implementation and management of a wide range of capacity building activities. A similar approach to other quarantine requirements is following this experience and the lessons can apply to other trade related technical assistance.

AFAS is more than a fumigation training program and is in fact a management system that is adaptable to management of a broad range of other quarantine treatments and initiatives. It is currently being expanded to cover heat treatment, ethylene oxide, container cleanliness and inspection activities of vehicles and machinery.

The success of AFAS is due to understanding the initial problem, determining the causes and developing a training program to address them and recognising that training alone is unlikely to resolve the problem unless the cultural, economic, legal and administrative processes in which the practices you wish to operate, are also addressed.

## ANNEX A – AFAS EFFICACY

AQIS data shows the following fumigation failure rates for AFAS countries pre and post implementation.

Country	Fumigation Failure rate Pre AFAS Implementation	Fumigation Failure rate Post AFAS Implementation
A	0.45%	1.03%
B	0.84%	0.3%
C	0.76%	0.21%
D	0.97%	0.26%
E	3.24%	2.79%
F	0.55%	1.05%

Data used is from the period of October 2005 to December 2010. Where a countries implementation of AFAS was prior to October 2005 (B and C), indicative failure rates from past data have been used.

AQIS data collection was redeveloped between January and September 2005.

While these figures indicate there has not been a reduction in fumigation failure rates for two of the six countries in which AFAS has been implemented (A and F), improved data collection tools and techniques along with an improved understanding of the need for and importance of accurate reporting by AQIS officers has increased the amount and quality of data available.

While this results in more accurate data over time it does not improve the quality of the historical data already collected. Had the current data collection quality been in place from 2005 the pre AFAS implementation failure rates would be higher.

Therefore the post AFAS implementation fumigation failure rates would show a reduction in the failure rate for A and F and a greater reduction rate for the countries B, C, D and E.