

QEAC SUBMISSION TO THE QUARANTINE AND BIOSECURITY REVIEW

April 2008

The Quarantine and Exports Advisory Council (QEAC) is composed of independent people chosen for their expertise in quarantine, industry and biosecurity. As well, QEAC includes in its membership, the Director of Quarantine, the Executive Director of the Australian Quarantine and Inspection Service (AQIS) and the Chief Executive of Biosecurity Australia (BA). Please note that this submission represents the views of the non-executive members of the Quarantine and Exports Advisory Council.

The main body of this submission includes discussion on seven key themes or issues that QEAC believes needs addressing, the first three are:

- 1. Managed Risk, Based on Science**
- 2. A Continuum of Quarantine**
- 3. Quarantine as a Shared Community Responsibility.**

Australia's quarantine systems were last subject to a major review carried out in 1996 by a review team chaired by Professor Malcolm Nairn. The Government's response to that review in 1997 sets out the current policy framework for quarantine decision making in Australia. The Government endorsed seven key themes to underpin quarantine policy in Australia. The three themes listed above, were included in the original seven and, continue to be as relevant today, as they were a decade ago, in helping guide Australia's quarantine policy and operational frameworks.

QEAC would like to bring to the Review Panel's attention a further four issues. These are fleshed out in further detail below.

- 4. Structural Arrangements of BA, AQIS and Product Integrity, Animal and Plant Health (PIAPH)**
- 5. Leaks, Holes and Gaps in our Border**
- 6. Funding Arrangements**
- 7. Research**

In addition, Attachment 1 of this submission contains QEAC's views to the specific questions posed by the Quarantine and Biosecurity Review Panel in its Issues Paper. To a large extent, Attachment 1 further elaborates on the themes and issues listed above and discussed in the main body of the submission.

A number of findings are provided in this submission. The main findings identified relate to the need for:

- Significant investments in AQIS's operational risk profiling and risk management capability;
- Modernisation of AQIS's Information Technology systems;
- Re-institution of the links between BA, AQIS and PIAPH;
- Significant improvements in respect to general post-border arrangements and associated Commonwealth and State/Territory responsibilities; and
- More appropriate models for resource allocation that would achieve a better balance of national interests.

QEAC believes that action on the above issues will ultimately provide a better and more efficient national quarantine and biosecurity platform.

The *Quarantine Act 1908* is now 100 years old. Because of Australia's island status and its position at "the other end of the world", Australia recognised earlier than most countries that there was a real economic advantage in keeping itself free from a number of important diseases.

The slowness of travel prior to steam ships and then aircraft was an effective barrier, because the voyage from most other places in the world was longer in duration than the incubation period of almost all diseases affecting humans, animals and plants.

As the speed of travel increased it was recognised that Australia needed a more proactive stance on quarantine. The size and complexity of this task requires a continuing and increasingly complex and comprehensive response.

Australia starts from a position where despite constant criticism and occasional significant incursions of disease, it can claim, perhaps with New Zealand, to have the best record of disease and quarantine control of all the systems in the world.

This is a fact, not a defence. If Australia is to maintain this enviable record, it needs to continue to increase its efforts. Australia's quarantine and biosecurity agencies also need to reassess constantly the shifting nature of the risks being faced and improvement in the tools at our disposal to combat these risks.

The Continuum of Quarantine, with its three stage approach and the Shared Responsibility, which engages industry and individuals as pillars in the defence are crucial planks to our continued effectiveness in quarantine.

The newer tools which need further expansion and development include such things as better interrogation of records, particularly using quantitative analysis, to target our efforts in a more effective and efficient way.

Risk analysis needs to be underpinned by an extensive scientific and technical knowledge base. Australia is currently facing a national shortage of expertise with an understanding of the potential exotic pest and disease threats. This is compounded by the ageing scientific workforce and a decreased number of people and positions in the field. This issue has been flagged by the Australian Biosecurity Co-operative Research Centre resulting in identification of offshore expertise that may be available to help meet our requirements.

Effective training of staff, and improvement in assurance mechanisms and auditing of processes, are essential to a properly implemented and maintained system. This is fundamental to underpin the entire concept of proven, science-based techniques, which in turn guarantees quarantine integrity.

QEAC was established to provide the Minister with independent advice on quarantine and export certification. In doing so it has a close association with both the Director of Quarantine and the heads of AQIS and BA. From time to time it has been quite forthright in its comments to the Minister and to the senior management of DAFF. However, its main focus has been on quiet co-operation and using its position to encourage changes that it sees as beneficial.

The Industry Consultative Committees, on which QEAC is represented, are also a key part of the constant process of ensuring that AQIS meets the needs of business. These committees are very important for their interchange of information and needed direction. However, it is QEAC's view that a full assessment of their effectiveness and representative balance is now due.

1. **Managed Risk, Based on Science**

“There are many paths for pests and diseases to enter Australia, by natural routes, accidents, or breaches of quarantine regulations. We cannot eliminate all these potential means of entry so therefore a zero risk quarantine policy is not possible. The Government accepts that there will always be an element of risk. The challenge facing us is to manage the risks within an appropriately conservative quarantine framework.”¹

Over the past decade, significant advances have been made in ensuring that ‘good science’ underpins our quarantine systems. This has most obviously occurred at the policy level in relation to the Import Risk Analysis processes that are now the responsibility of BA. But effectively managing risk at the operational level is also critical to ensuring the success of our systems. While progress has been made by AQIS in improving its program delivery, there are significant steps forward that are necessary to ensure that the maximum quarantine outcomes are being obtained from the resources that are invested in our quarantine programs.

Effective program management systems require that:

- there is clear definition of objectives
- those engaged in the system have their roles clearly defined and understood
- there are parameters set that determine whether objectives are being met
- there is comprehensive and reliable risk data that informs the deployment of operational resources
- there are comprehensive assurance systems in place.

QEAC considers that there is now an urgent need for significant investments in AQIS’s operational risk profiling and risk management capability. The Callinan Inquiry also clearly identifies the need for urgent strengthening of AQIS’s program assurance systems.

At the quarantine program level, AQIS has to be able to answer the question:

“How do we know this program (e.g. Import Clearance, Airports etc) is, over time, reducing quarantine risk?”

At present, this question can not be answered in respect of some of AQIS’s most significant activities.

The Import Clearance (IC) program is AQIS’s largest and most complex quarantine program and manages the highest risk pathways for the introduction of exotic pests and diseases. Yet there are major gaps in the IC program management systems:

- There is no meaningful data that demonstrates improvements in quarantine effectiveness over time.
- Key performance indicators for the program relate only to certain elements of the program including mandated Increased Quarantine Intervention (IQI) activities that cover only a very small part of overall program activity.
- Where measures are available (e.g. cleanliness of external surfaces of sea containers), there is no systematic drill down/trace back capability that enables AQIS to target specific countries of origin, shipping lines, freight forwarders or other elements of the logistics chain with higher than average non-conformance rates.

¹ Australian Quarantine A Shared Responsibility: The Government Response, August 1997

Note: The Import Clearance program is currently the focus of a joint QEAC/AQIS Review which is due to be reported to the May 2008 QEAC meeting.

One major obstacle to implementing comprehensive risk profiling and reporting systems is the outdated information technology systems on which AQIS programs operate. The main operating system for Import Clearance is AIMS (AQIS Import Management System). It was first released in 1992² and is incapable of supporting comprehensive data extraction and risk profiling requirements. There is a large number of databases (in excess of 15) used by Import Clearance program managers which have been independently developed and therefore have no consistent architecture enabling cross-activity and cross-regional comparisons to be made.

A recent draft report by DAFF Internal Audit into aspects of the IC program found that:

“The information technology systems that support Automatic Entry Processing are over 10 years old and written in dated programming languages. Interviewees indicated that recruiting staff with adequate skills to further develop these systems is becoming more difficult. The complexity of the embedded logic within the systems requires significant time for a programmer to understand the system before making any changes.

As currently implemented, changes to the IT processes necessitates a critical degree of testing because of the complexity of the logic, and the risk to the logic as a result of minor changes.”

“Internal Audit could not confirm interviewee comments around the volume of transactions processed through AEP-COM due to issues in generating reports from the system.”³

AQIS has very good trace back/trace forward capability in its export programs – for example, a carton of meat landed in the USA and found to be contaminated can be traced back through the shipper, cold store, processor and back to the property of origin to allow the necessary corrective action to be taken.

But AQIS does not have the same capability in its quarantine programs. Without this capability AQIS currently has no means of systematically and accurately targeting those elements of the logistics chain that are giving rise to the problems with imported goods that are being detected at the border.

Consistent with the philosophy of maximising the extent to which risks can be kept offshore, it is vital that AQIS be able to direct the results of its border inspection findings back to those elements of the logistics chain that are giving rise to quarantine risks.

QEAC considers that there is an urgent, critical need for the modernisation of AQIS's Information Technology systems. Other Commonwealth service delivery agencies, including Customs, Centrelink, the Australian Taxation Office and the Department of Immigration and Citizenship have been funded by Government for the modernisation of their IT systems in very recent years. The need for a significant capital injection for AQIS for this purpose is now overdue.

² Source: AQIS. AIMS was first trialled as QEMS (Quarantine Entry Management System) in Queensland in 1992: the Imported Food program was added in 1995 and at such time the program became known as AIMS and was implemented nationally.

³ Source: DAFF, Internal Audit, Draft Report, Post Implementation Review Advanced Entry Processing – Commodities, February 2008

QEAC argues that this is an urgent priority for additional Budget funding.

- There is a significant public benefit in having robust and effective infrastructure to support quarantine programs
- It would be inequitable to expect today's importers to meet the full cost of systems that would support future importers over the next decade
- Current fee-for-service charges would be unable to generate the capital required to complete the urgent systems re-development program.

Following the Callinan Review, it is clear that there is a need to urgently re-examine the AQIS internal assurance framework in order to satisfy the Director of Quarantine that programs are being managed to the requisite standards.

The assurance framework should address:

- program effectiveness measures
- internal AQIS management systems that address program performance on an ongoing basis
- measures that enable cross-regional performance comparisons
- audit by AQIS of third party systems
- internal audit of AQIS operations and program delivery
- program reviews by QEAC
- external reviews (e.g. by the Australian National Audit Office).

2. A Continuum of Quarantine (pre-border, border, post-border)

“The Review Committee emphasised the importance of a balanced approach to pre-border, border and post-border quarantine systems. There is a tendency for quarantine to be viewed as merely about border protection. This is understandable given that this is the most visible aspect of quarantine to the community. It has always been the position of this Government that an effective quarantine regimen comprises more than just border protection. The Nairn Report pointed out that quarantine needs to be seen as a continuum of activities involving pre-border measures to reduce the threat of entry, well targeted border controls, and post-border activities such as monitoring and surveillance to detect incursions at an early stage, with emergency response plans to contain, control or eradicate pests and diseases.

The Nairn Report highlighted the effectiveness of pre-clearance of passengers or goods in their country of origin as consistent with the principle of managing quarantine risks offshore. The Government acknowledges this and endorses the continuation and expansion of offshore pre-clearance as part of the pre-border phase of the continuum of quarantine.”⁴

Most AQIS quarantine programs have a primary focus on border operations, which is understandable given the operational imperative of rapid clearance systems for the huge quantity of cargo and people entering the country. However, in the period following the Government's decisions on the Nairn Report, there have also been significant gains in addressing pre-border measures.

Significant developments include offshore inspection of military personnel, machinery and equipment and non-military machinery and equipment; and the negotiation of fumigation standards under the Australian Fumigation Accreditation Scheme (AFAS).⁵ AQIS also

⁴ Australian Quarantine A Shared Responsibility: The Government Response, August 1997

⁵ Source: AQIS. AFAS has been fully implemented in Malaysia, Indonesia, Thailand and India – furthermore, AQIS is currently working with quarantine agencies in the Philippines, China and Papua New Guinea to progress the implementation of AFAS.

conducts offshore inspection of fresh fruit for a number of countries and commodities such as Asian pears from China, table grapes from the USA and summerfruit from New Zealand. Some of these offshore inspections are mandatory under importation policies, others are voluntary.⁶

Pre-border arrangements are very effective in theory, because they keep potential risk organisms from entering Australia. The associated cost structure however can be extremely high and the effectiveness variable, because of differences in standards of adherence to best practice. Where AQIS's border systems are adapted to recognise pre-border arrangements, it is essential that there be an effective assurance regime developed that is consistent across programs.

The AQIS Business Plan does not outline any comprehensive medium-term strategy for the further development of pre-border activities although QEAC is aware that program managers have some developments under consideration.

The most effective step that could be taken to ensure that quarantine risks are addressed offshore to the maximum extent possible, would be to build the trace back capability referred to earlier into all of AQIS's quarantine program operating systems.

Activities at the third level, post-border, complete the quarantine continuum.

There are demonstrated examples of very effective post-border systems – in relation to Equine Influenza (EI), these systems have, on the whole, appeared to have worked well. The virus was identified, confinement strategies adopted and eradication commenced. This approach has also served Australia well in the past, for example, with the incursion of Papaya Fruit Fly into North Queensland, Black Sigatoka at Tully and citrus canker at Emerald.

QEAC is of the view however, that significant improvements can be made in respect to general post-border arrangements – acknowledging though that the agreement of the relevant State and Territory agencies to work together to achieve this is critical.

At present, there appears to be little effective partnership between Commonwealth and State/Territory governments in monitoring post-border leakage and working collaboratively on appropriate amendment of quarantine measures. This is hampered by the limited information sharing and an attitude that AQIS systems have failed at the post-border stage rather than recognising this as an important element in the quarantine / biosecurity continuum. Additionally, the issue of erosion of State/Territory resources for post-border monitoring provides further challenges – this was highlighted in the National Performance Audit conducted by Animal Health Australia in 2007.

One of AQIS's quarantine programs, the Northern Australia Quarantine Strategy (NAQS) is an excellent example of the importance of addressing quarantine risk across the continuum in a balanced manner.

NAQS was established in 1989 following the Lindsay Review of Quarantine in response to the significant number of special problems for quarantine across Northern Australia, particularly in the Torres Strait and the Northern Peninsula Area of Queensland. It was reviewed in 1995 (Nairn and Muirhead), again in 1998 (QEAC) and increased in scope and scale as part of the Government's responses to concerns about foot and mouth disease, avian influenza and illegal foreign fishing vessels.

⁶ Source: AQIS.

The focus of NAQS across the continuum is as follows:

- Pre-border – pest, disease and weed surveys in Papua New Guinea, Indonesia and East Timor; quarantine capacity building in these countries;
- Border – inspection of people, vessels and goods in the Torres Strait and Northern Peninsula Area
- Post-border – pest, disease and weed surveys in the NAQS zone; monitoring and trapping systems in the NAQS zone; public awareness activities.

Successive reviews of NAQS have underlined the importance of the program and its effectiveness. But the program has been impacted by a number of issues in recent years:

- significant growth in the program from 24 FTEs in 1995 to 75 in 2008
- growth being focussed to a significant extent in border and operational activities
- reduction in scientific/technical capability in AQIS consequent upon the structural separation of BA and PIAPH
- shift from scientific management of the program based in Cairns to Canberra-based management – and significant growth in Canberra-based staffing levels
- devolution of management of NAQS regional staff to the three AQIS regions rather than ‘Northern Australia’ management
- change from ‘Northern Australia’ stakeholder consultative structures to bilateral arrangements with each of the two States and NT and one-to-one consultations with other stakeholders.

QEAC is most concerned that the consultative arrangements for NAQS are now so fragmented. In addition, QEAC understands that the Consultative Committee for NAQS has not met since 2005. The management arrangements and responsibilities for the various elements of the program are now very complex and it is not clear that there is a proper balance in the program nor that the scientific focus of the program, its principal *raison d’être*, is as prominent as it needs to be. The apparent significant shift in the balance of the program towards Canberra-based staffing is of particular concern to the Council.

QEAC recommends that the Review Panel carefully consider the current structural and management arrangements for the NAQS program.

3. Quarantine as a Shared Community Responsibility

“The Nairn Report identified a need to establish a new quarantine culture in Australia; a culture of shared responsibility. Quarantine is the responsibility of everyone; the Commonwealth, States, industry and the wider community. While the Commonwealth Government clearly has a leadership role, it is impossible for the Commonwealth to do it all alone. For example, people have to be responsible for what they bring back when travelling overseas, and State Governments and industry each have an important role in developing incursion management plans, monitoring and surveying for pests and diseases and responding to outbreaks.”⁷

The concept of shared responsibility is fundamental to Australia’s quarantine policy and AQIS’s operational processes. In the time since the Government adopted the principle of shared responsibility, significant progress has been made in strengthening our systems through the process of building awareness of the importance of quarantine in the community generally, and in engaging stakeholders in the delivery of procedures and processes that contribute to our quarantine security.

⁷ Australian Quarantine A Shared Responsibility: The Government Response, August 1997

The responsibility for quarantine needs to be shared amongst all stakeholders – Commonwealth and State/Territory governments, agricultural/livestock industries, research agencies, other bodies that contribute to national quarantine/biosecurity policy development (such as Animal Health Australia and Plant Health Australia), and the general public all have a clear role to play. Further communication and encouragement of these roles and their importance to the overall quarantine solution is vital.

Significant improvements can be made in collaborative efforts between the Commonwealth and State/Territory governments – especially in the areas of quarantine risk identification and analysis, information and data sharing, targeting of post-border surveillance activities and complementary public awareness programs – to achieve a partnership approach to risk mitigation. This issue is discussed in further detail in the Attachment.

Public awareness activities that provide the shared responsibility message and quash the notion of a “zero risk” approach to quarantine are pivotal in the quest for quarantine security. This aspect is further discussed in section 5 below and in Attachment 1.

There is now a significant number of varied arrangements in place where industry provides services and/or undertakes activities that would otherwise have to be performed by AQIS officers. These include quarantine waste management, onshore fumigation and wash down facilities, and post-entry handling of items in quarantine approved premises such as laboratories for biological materials.

In all, there are around 2,800 AQIS-accredited premises under the Import Clearance program with around 8,400 staff also with AQIS accreditation. This represents a significant expansion of quarantine-aware people dealing with imported goods at our borders.

Co-regulatory arrangements work well where the commercial incentives clearly align with getting quarantine requirements right. For example, there are clear incentives for service providers such as fumigators (staying in business!) to get it right. Delays in the clearance of goods at the border add significantly to costs to importers and cause disruption through the logistics chain. It is therefore in the interests of importers to ensure that they get it right from a quarantine perspective to avoid these delays.

It is timely that there be a review of the different models in place across AQIS in both export and import programs to ensure that there is a consistent approach to the administration of co-regulatory schemes, particularly in relation to audit and rewards/sanctions. Co-regulatory schemes tend to have been developed to address specific elements of the quarantine system, often without regard to issues of consistency with other schemes and standard reporting requirements:

“In analysing the existing CA schemes, it can be shown that inconsistent rules had been applied to develop the various audit and compliance policies. The risk of a particular scheme did not consider relative risk in comparison to other schemes when sanctions were applied, timeframes for additional audits were variable, terminology for initial rates and elevated rate of audit levels was different, as too were the level at which suspension was applied.”⁸

There is potential to significantly expand the number of co-regulatory arrangements by using risk profiling to target importers, brokers and commodities with a demonstrated clear record of compliance with quarantine requirements, thus freeing up resources to devote to areas of much higher risk.

⁸ Source: AQIS, CMC 26 Information Paper

For example, Company A is an importer / retailer of a wide variety of manufactured goods that has imported some 10,600 containers over the last 2.5 years consisting of 10,000 lines of goods many of which (such as timber material) are subject to quarantine inspections. Company A has a perfect record in relation to quarantine risks yet in the time under consideration has been subject to approximately 6,800 AQIS AIMS entries /inspections – the gross cost to the company has been in the order of \$3 million.

QEAC considers that there should be a concerted effort by AQIS to promote greater uptake of new and existing arrangements including:

- Reducing unnecessary complexity and administration – e.g. removing the need for annual/biennial re-registration processes and relying instead on the audit processes as the means for allowing arrangements to continue.
- Providing greater incentives for firms with an excellent track record of compliance with current arrangements, e.g. removing the existing requirement for customs brokers to present documents to AQIS officers for goods to be cleared.

These matters are dealt with in more detail as part of the joint QEAC/AQIS Review of the Import Clearance Program.

4. Structural Arrangements of BA, AQIS and PIAPH

BA was established in 2000 to take responsibility for import risk analyses and technical export negotiations within DAFF. When quarantine policy was set by BA, AQIS was tasked with its implementation. Although strong links exist between the two agencies, a consequence of the formation of BA has been the drain of scientific and technical capability within AQIS resulting in a depletion of the capacity of AQIS staff to make informed judgments. The communication arrangements between the two organisations appear to have become complex and time consuming.

In QEAC's opinion, issues are now referred to BA for formal advice that would have been quickly dealt with inside the one organisation prior to BA's formation. BA is equipped with the technical and scientific skills to make sound policy decisions. BA's removal, however, from the operational aspects and industry pressures on the day to day implementation of these policies, has left AQIS as the interface with industry. As a result, AQIS needs to defend BA policy, as well as the perceived highly theoretical and conservative approach taken to its development, and the associated timeliness (or lack thereof) of the decisions. Recent examples include substantial delays in developing policy on low risk wooden articles, including cricket bats and extremely conservative approaches to the movement of a used horse stall.

For these reasons, QEAC believes there are arguments for putting quarantine and biosecurity all back together. More integration is better than more fragmentation and the Council believes that strong consideration should be given to a revised structural model that allows for better integration of the functions and responsibilities currently carried out by BA, AQIS and PIAPH.

QEAC recommends, therefore, that the role of BA be brought back into AQIS. Reintegration of the roles of PIAPH with AQIS operations would ultimately result in greater consolidation of DAFF activities, and efficiency and effectiveness dividends. It should increase communication and sharing of information and knowledge, as well as reduce any silo "mentality" across the entire quarantine and biosecurity continuum.

5. Leaks, holes and gaps in our Border

The notion of a “leaky border” has always been a difficult concept for the general public to accept. It is a common misconception that geographic isolation from other countries, coupled with well resourced border agencies, should equate to absolute quarantine security. The ‘border’ is perceived to be an “impenetrable barrier”.

Given the volume and complexity of the movement of goods and people into the country, some leakage at our borders is a given. Not everything and everyone can be inspected. Even without this, other passive means of entry of pests and diseases (e.g. through migratory birds and wind currents) still represent significant quarantine risks.

This message needs to be better communicated to the general public. Our quarantine and biosecurity systems are predicated on the basis of acceptable risk mitigation and management strategies, and that there can be no such thing as a “zero risk” approach to quarantine.

No amount of money, effort and attention can totally seal or fix the leaks at our border to provide absolute quarantine assurance. The most practical solution to a leaky border lies in a multi-layered defence system covering the full biosecurity continuum with all agencies, industries and the community accepting their responsibility and contributing accordingly. This accords with the shared responsibility concept discussed throughout this submission.

The Council notes that the Steve Irwin campaign is recognised as one of the best ever run by a Government agency. It significantly raised the awareness of quarantine. More recent quarantine campaigns have attempted to provide the more targeted message about shared responsibility, but AQIS’s communication strategy could be strengthened and improved in this respect. Acceptance of this key message will further foster the notion of a shared responsibility and its importance given our leaky border.

Nevertheless, it is important that AQIS continues to identify areas of risk at the border where targeted interventions could add to the overall effectiveness of our systems. There are still some gaps or holes in the border that need to be addressed. The Council has identified the following as examples where greater attention should be directed:

- Lack of timely risk profiling information that targets operational resources to areas of greatest risk.
- Self Assessed Clearances (SACs) – some 6.8 million consignments with a self assessed value less than \$1,000 are imported annually. Only 5% are referred to AQIS after triggering quarantine profiles. The extent of leakage here should be identified and assessed. Customs is identifying significant leakage issues from their perspective. The approach taken to SACs is inconsistent with the approach taken to International Mail.
- Leakage associated with air cargo needs to be identified and assessed.

6. Funding arrangements

Of critical importance is that resources are allocated on the basis of risk. AQIS must have the authority to apply resources according to the assessment of risk of various pathways, regions and operations. The constraints placed on AQIS under IQI – which tied expenditure to pre-agreed pathways and activities despite subsequent conclusions that this resourcing did not match the risk distribution – has seriously reduced the credibility of AQIS in recent years.

The current funding arrangements dictate that costs are recovered on a “user pays” basis in programs where they are directly attributable, while budget funding is provided for those activities (e.g. policy advice) where the benefits are less attributable to specific users.

From a simplistic viewpoint, these arrangements seem generally appropriate however they significantly limit AQIS’s capacity to reallocate resources flexibly across programs to address areas of emerging risk. Additionally, there is also a legitimate expectation of the “users” that as the main financial contributors, this should also buy a say on the management of the various cost-recovered quarantine programs – the current reality is that industry has relatively little say on AQIS program management issues. This could be addressed through the reinvigoration of the ICC processes.

Managers of AQIS cost recovered programs are required to document the model used to develop their fee and charging structures – this includes matching major types of activities and/or clients with revenue. Pure cost recovered arrangements severely limit a program’s ability to direct funds towards projects and activities (e.g. a major refreshment of AQIS’s information technology systems) that are clearly beneficial to the program but fall outside of the direct costs attributable to users.

Whilst QEAC continues to support the cost-recovery model, over time a number of issues have arisen that in QEAC’s view militate against the optimal allocation of resources for quarantine risk management purposes. These are described in further detail in Attachment 1.

QEAC is strongly of the view that consideration should be given to more appropriate, risk-based, models for resource allocation within the quarantine and biosecurity system that would achieve a better balance of national interests.

7. Research

For reasons of credibility, effectiveness and efficiency, and to withstand external scrutiny, much of the work of AQIS, BA and PIAPH has to be underpinned by good science. QEAC sees that there is an important and justifiable need for research in a number of quarantine and biosecurity areas.

DAFF can not be expected to employ scientific and technical expertise to cover the broad spectrum of quarantine and biosecurity issues. QEAC sees the need for scientific research in a number of priority areas including the development of quantitative models that enable better identification of risk arising from goods and people entering Australia and enable AQIS to better target interception effort at the border.

Other priority research areas include the support of IRA processes; to validate AQIS treatment processes; to identify new and emerging quarantine and biosecurity risks; and to strengthen Australia’s national monitoring systems. These issues are further elaborated in Attachment 1.

The Australian Centre of Excellence for Risk Analysis (ACERA) was established in 2006 to provide benefits to Government and the wider community through the development of risk analysis practices. The Council notes that AQIS, BA and PIAPH are identified as end users of ACERA projects. The Council was supportive and a key driver of, the establishment of ACERA but would comment that the true benefits of this additional research body by DAFF are yet to be realised as there remains capacity for DAFF to better engage and utilise this resource.

At present there appears to be no identifiable resource or process for establishing research priorities for quarantine and biosecurity within DAFF. QEAC recommends that such a process should be developed to enable the full range of research needs of DAFF to be addressed in a systematic way.

ATTACHMENT 1: QEAC'S RESPONSE TO THE QUARANTINE AND BIOSECURITY REVIEW – ISSUES FOR CONSIDERATION

The following outlines QEAC's views on the specific questions included in Part C of the Quarantine and Biosecurity Review's Issues Paper.

C1. Risk across the quarantine and biosecurity continuum

- **Are Australia's quarantine and biosecurity systems appropriate to maintain its ALOP (very low risk, but not zero)?**
- **Is ALOP understood and applied in a consistent way? Is it achieved in a way that is not more trade restrictive than required?**

Australia's beneficial animal and plant health status can be attributed in large part to our existence as an island continent, our geographical isolation from the rest of the world, the advent of European settlement only recently (in world terms) and the relatively recent development of very rapid, mass transport systems. Nevertheless, the recognition of the importance of maintaining our beneficial status reflected in the proclamation of the *Quarantine Act 1908*, and the subsequent and progressive implementation of quarantine and biosecurity systems have served Australia well in preserving our comparative advantage.

In 1996, responding to concerns expressed about an alleged influx in the number of detections of incursions of exotic pests and diseases, the Nairn Review Committee commissioned a number of studies through the Bureau of Rural Sciences that examined the number and rate of establishment of exotic pests and diseases over the period 1971 to 1995. The Committee looked at reports on:

- pests and diseases of animals
- pests and diseases of forest trees and products
- pests of plants
- pathogens of plants
- weeds.

The Nairn Review Committee concluded, *inter alia*, that

"there is little or no evidence for an increased rate of incursions leading to the establishment of pests and diseases of animals or plants over the past 25 years – although weeds appear to show an increasing rate of incursions over recent years".

In the absence of any better data, QEAC recommends that:

- this research be adopted as the high level effectiveness indicator for the outcomes to which BA and AQIS contribute; and
- the research be updated to cover the period 1995-2007.

If the further research were to confirm the broad conclusions of the earlier studies commissioned by the Nairn Review Committee, it could be concluded that, given the enormous growth in movements of people and goods into Australia over the past 37 years, quarantine and biosecurity systems have been very effective in maintaining our ALOP.

QEAC questions whether the ALOP is generally understood outside of Government and those stakeholders with a direct engagement in our quarantine systems – this is a matter that is dealt with later under Section C5. Communication and consultation.

QEAC considers that in the context of Import Risk Analyses (IRAs) completed post-Nairn there has been consistency in the application of the ALOP. However, there is a significant difference in the level of risk accepted under the commodity-based IRAs that have been completed, and the risks associated with the ongoing arrival into Australia of mail and parcels, cargo, people,

aeroplanes and ships. Indeed it is true to say that if “International Tourists” or “Container Cargo” were to be subjected afresh to the same IRA processes that are now applied to commodities, the findings and, therefore, the conditions under which this ‘trade’ might take place would be very different from the current pre-border and border inspection arrangements that AQIS currently operates.

Similarly, the poor understanding, or acceptance, among many stakeholders of the concept of managed risk means that extraordinary attention is often focussed on the risk pathways subject to formal IRAs, whereas there may be other pathways via which the same (or other serious) pests may enter Australia which receive little attention from industry/community stakeholders. The lists of Emergency Animal Diseases (EAD) and Emergency Plant Pests (EPP) developed by Animal Health Australia and Plant Health Australia respectively, and the potential entry pathways for these EAD and EPP may provide a useful starting point.

QEAC considers that much more attention needs to be applied to a balanced approach to risk mitigation across all major pathways (including those not amenable to quarantine measures). Appropriate levels of resources need to be applied to both risk mitigation and risk communication.

- **Should the wider implications – for exporters, consumers and the economy – be taken into account when developing quarantine and biosecurity arrangements, and if so, how?**

Clearly, as a substantial net exporter of quality food and agricultural commodities, Australia is subject to the risk of significant losses in the event of an exotic pest or disease outbreak. These losses can be taken variously by producers, processors, exporters and the community as consumers of the affected goods. It is appropriate that these risks are taken into account as part of the IRA process. Increasing knowledge, particularly among State/Territory agencies and the Australian Bureau of Agricultural and Resource Economics (ABARE) regarding the economic worth of each part of primary produce value chains should provide valuable input to IRAs.

- **What are the benefits of Australia’s current approach to quarantine and biosecurity?**

Subject to the updated research on pest and disease incursions recommended above, it can be shown that the current approach has continued to preserve Australia’s comparative advantage in the face of rapidly increasing inflows of goods and people and the recent international occurrences of significant new and emerging diseases such as Severe Acute Respiratory Syndrome (SARS), Bovine Spongiform Encephalopathy (BSE), Nipah virus and highly pathogenic avian influenza.

The benefits to Australia lie in reduced production and processing costs, associated benefits to consumers and competitive prices for our exports with a marketing advantage in ‘clean, green’ products. Australians in general, place a high value on the preservation of our unique and pristine environment as well as the biodiversity it supports and the lifestyle it provides. There are also considerable and significant benefits to our public health systems that result from Australia’s freedom from diseases of concern.

A substantial benefit of Australia’s conservative approach to quarantine risk is that it addresses long term industry, community and environmental needs better than any other country. While it is relatively easy for Australia’s competitors to mount arguments against this country’s strict quarantine measures, this is usually done to satisfy some short-term trade argument and rarely takes account of the long-term (inter-generational) benefits to Australia, and potentially the world, of sustaining a low level of exotic pests and diseases for a major continental region.

- **Is it well understood in the Australian community that quarantine measures can only be applied to the extent that they are necessary to protect human, animal or plant life or health that they are the not more trade restrictive than required, and that they may not be used as an industry protection mechanism?**

No, it is not well understood in the Australian community. There remains a view in some elements of industry, and reflected also in the community more generally, that Australia “doesn’t need” commodities, and therefore, that it should not import them under any circumstances because there is a perceived risk, however slight, that they threaten our production systems.

Successive inquiries have dismissed the notion of “zero risk” and “Fortress Australia” but still these attitudes persist.

They seem to come often from industries that have tended not to have a strong export focus (e.g. pigs, chicken) and where there are specific commodity IRAs underway or in prospect where imports could threaten competition with domestic production and, potentially, force adjustments in the industry concerned.

It also seems likely that the long-term communication approach taken by AQIS, based around language like “quarantine barrier” has contributed to an expectation that Australia’s quarantine measures can be a perfect barrier – and that any pest and disease getting through the quarantine system is the fault of the system operator, AQIS. This has contributed to an extraordinary focus on specific parts of the AQIS system, even when it is clear to those knowledgeable about the “quarantine (or biosecurity) continuum” that AQIS measures alone cannot effectively address the biosecurity risk – certainly not without a level of regulatory intervention that would be extremely costly to commerce.

- **Do Australia’s risk assessments (including import risk analyses) competently and comprehensively assess risk and risk management issues when providing advice on market access requests and import applications? Are they sufficiently timely?**
- **Is the role of the Eminent Scientists Group in the import risk analysis process understood and appropriate?**

The conduct of IRAs has been a significant and ongoing subject of review and consultation following the Nairn Review in 1996. There is no doubt that there is now a more disciplined and thorough process in place with appropriate arrangements for consultation with stakeholders and appeal mechanisms. Recent changes to the process and its incorporation in subordinate legislation under the *Quarantine Act 1908* should assist with more timely consideration of import applications. Given that the IRA process was reviewed in 2007 and subsequent improvements made and communicated to stakeholders through the *Import Risk Analysis Handbook 2007*, QEAC is of the view that sufficient time should be allowed for this new process to be bedded down before appropriate and regular reviews commence.

The role of the Eminent Scientists Group is vital to the IRA process and to public perceptions of balance and credibility. QEAC is of the view that this group is still not properly understood by general stakeholder groups.

With the advent of legal challenges to IRAs from within Australia, it seems unlikely that it will be possible to significantly shorten the time taken to complete contentious IRAs. Biosecurity Australia needs to produce extremely detailed, well-reviewed IRAs that will stand potential challenges under Australian or (WTO) international law, or both – despite the resultant protracted period of time and the substantial cost to Australian taxpayers.

- **Is the quarantine and biosecurity framework adequate to analyse and manage risks to the environment? Does Biosecurity Australia have the skills/ability to assess any such risks?**

The IRA process should, and does, have regard to the potential environmental impacts. For example, in the case of salmon from Canada, the potential impacts on Australian native fish species were assessed as part of the IRA. In addition, the development of improved arrangements for the management of risks to the environment associated with ships' ballast water has been a major focus for AQIS over the past decade.

BA cannot hope to have amongst its permanent staff, scientific expertise relevant to every conceivable risk to animals, plants, birds, fish and the environment arising from matters under consideration. What is necessary, therefore, is that BA has adequate resources and the flexibility to contract advice to cover any knowledge gaps that may be identified.

- **Are threats to Australia's marine environment and fisheries arising from bio-fouling on ships' hulls and organisms in ballast water best handled in a quarantine and biosecurity framework, or some other framework?**

AQIS has been at the forefront of the identification of risks to the environment and marine life posed by ballast water and the development of measures to mitigate the risks. AQIS also took a lead role in arguing the case for harmonised national systems to deal with the potential for translocation of exotic organisms between Australian ports.

At present, however, there remain interstate differences in approach. In QEAC's view the issues should continue to be addressed in a quarantine and biosecurity framework but in close co-operation with other interested parties. Resolution of the interstate differences will not be achieved through considerations of Primary Industries Ministers acting alone. The close engagement of transport and environment portfolios as well as port authorities and shippers will be necessary.

Separation of ballast water and bio-fouling issues from the current arrangements makes little sense when AQIS/BA will continue to be responsible for the risk assessment and management of other things that may impact on marine life, e.g. importation of live fish, commodities that may be used as bait (e.g. prawns) and fish meal/fish feed (e.g. pilchards).

Risk mitigation measures currently in place, however, should be reviewed to ensure that the interests of all relevant parties are accommodated to the extent possible.

In QEAC's view there is an urgent need to strengthen ballast water management practices to include assurance that the ship's ballast water exchange log correlates with the ship's engine room logs.

The physical examination of ships' hulls for bio-fouling is currently being considered by AQIS. In the Council's view the direct inspection of hulls by divers employed or contracted by AQIS should not be contemplated. Rather the current Customs arrangements should be reviewed and extended to include quarantine matters, subject to Customs accepting AQIS's risk assessment requirements and adequate reporting standards and mechanisms.

- **Are risk analyses, import policy determinations and permit conditions sufficiently updated through monitoring of actual experience in the application of risk management measures? Do the appropriate feedback loops exist and are they effective?**

QEAC expects that this issue will feature as a significant finding in relation to the importation of horses arising from the Callinan Inquiry, and recommends that this issue be further examined in the light of the EI Inquiry.

A significant concern for some stakeholders is that the risk profile can change significantly after the IRA-based import conditions are established. For example, while the IRA may conclude that the risk is acceptable based on the estimated volume of trade, this volume may increase substantially over time, leading to a higher (potentially unacceptable) level of risk.

- **Does AQIS implement risk management in a manner consistent with the advice/recommendations provided by Biosecurity Australia and the Director of Animal and Plant Quarantine (as outlined in the Import Risk Analysis Handbook)?**

QEAC's view is that in general AQIS does implement risk management in a manner consistent with the advice/recommendations provided through the IRA process.

- **Is there adequate auditing and verification of pre-border, border and post-border measures to ensure that policy determinations and permit conditions, including arrangements for co-regulation with industry, are in fact meeting the appropriate standard?**
- **How should the quarantine and biosecurity continuum (pre-border, border and post-border) be monitored to ensure that the system functions (to prevent and respond to pest and disease incursions)?**

QEAC expects that this issue will feature as a significant finding in relation to the importation of horses arising from the Callinan Inquiry, and recommends that this issue be further examined in the light of the findings of the EI Inquiry.

There is a hierarchy of monitoring/accountability mechanisms that should operate to provide assurance that the quarantine and biosecurity systems function as intended.

- Internal management processes supported by meaningful performance measures that enable cross-regional comparisons
- Internal review by National Program Managers against plans/delivery standards
- Internal audit
- Audit by AQIS of third party systems
- Program reviews by QEAC
- External audit and review.

There is significant attention paid by AQIS to audit of third parties, however, it is likely that the EI Inquiry will point to the need for substantial improvement in other assurance mechanisms.

There has been relatively limited ongoing monitoring of the overall effectiveness of quarantine measures for key pathways. While various reviews have been completed, including an audit by the ANAO, it is only recently that AQIS has established significant capability to monitor on an ongoing basis risk presentation, leakage and effectiveness for key pathways such as sea container imports.

There appears to be little effective partnership between AQIS and State/Territory agencies in monitoring post-border leakage, provision of constructive feedback to AQIS and BA, and appropriate amendment of quarantine measures. This area of the “biosecurity continuum” should be substantially improved, but this will necessitate a genuine partnership between the Australian Government and State/Territory agencies, rather than the current, often adversarial approach.

It is QEAC’s view that the delivery of all quarantine and market access programs within AQIS should be subject to audit by a dedicated audit unit. This audit unit would report to the Director of Quarantine. It would work closely with the Executive Director of AQIS. One of the essential bases of third party certification is independent auditing of the certifying agencies. This principle needs to be extended to program delivery within AQIS to ensure consistency of delivery, continual correction of shortcomings and continual improvement in the standards.

- **Are the arrangements for sharing pest and disease information between the Commonwealth, the states and territories and industries working adequately?**
- **Are Australia’s emergency response plans for exotic pest and disease outbreaks adequate?**
- **Are the current cost-sharing arrangements between Commonwealth, state and territory governments and affected industries, that apply in the event of a pest or disease incursion, appropriate? Should they be broadened to cover other exotic pests such as exotic weeds?**
- **Are the arrangements for incursions with a principally environmental impact appropriate?**

The “shared responsibility” and “quarantine continuum” concepts espoused by Nairn are well accepted but, generally, poorly implemented. The poor sharing of quarantine risk presentation, and (potential) residual risk information is an illustration of this weakness.

There is little data sharing between AQIS and State/Territory biosecurity agencies. This appears to have occurred, in part, due to the historical poor functionality of AQIS databases, and often poor quality (certainly poor utility) of the data. It has also resulted from an adversarial approach taken by State/Territory agencies, where data is sought more to find fault with the AQIS system rather than as a partnership approach to risk mitigation along the risk pathway.

As a result of poor information flow, State/Territory agencies are not in any position to target post-border surveillance activities in higher risk situations, or to mount complementary public awareness programs that might result in reporting of pest and disease leakage and establishment.

QEAC considers that significant cultural change will be required in this area, with DAFF’s biosecurity areas (BA, AQIS and PIAPH) taking a much more engaging approach – perhaps based around acceptance of the “leaky border” concept rather than the current “quarantine barrier” approach.

- **Are the arrangements for export inspection and certification effective?**
- **Are they consistent with Australia’s international obligations?**

In QEAC’s view the export certification programs and arrangements are long standing and work very well to meet importing country requirements and maintain market access. DAFF’s involvement in international standard setting fora continues to be significant and ensures that Australia’s interests are maintained.

C2. The legislative framework

- **Are the current roles and responsibilities of the Commonwealth and the states and territories well understood and operating effectively?**
- **Does the current legislative framework provide the Commonwealth, states and territories with the authority and powers needed to undertake quarantine and biosecurity functions effectively?**

QEAC concludes that, on a legal basis, the relative roles and responsibilities of the Australian Government and the States/territories are reasonably well-understood. However, in such a rapidly changing global and national operating environment, it is also easy to conclude that the historical roles and responsibilities of the parties to Australia's biosecurity system are impeding effective and efficient mitigation of current and emerging risks.

QEAC observes that the recent initiative to establish AusBIOSEC (biosecurity system for Australia's primary industries and natural environment) as a holistic partnership between all major parties has potential to progress a more effective partnership, both between sectors, governments and agencies (across the latitudinal biosecurity continuum) and between governments, agencies and industries/communities (across the longitudinal biosecurity continuum). QEAC wonders whether the aspirations for AusBIOSEC can be readily realised without establishment of a highly experienced, external council to monitor and report on the performance of agencies and industry/community partners in their collective efforts to enhance AusBIOSEC.

QEAC considers that, collectively, Australia's governments have sufficient quarantine and biosecurity powers available to them to address the national needs. This may not be the case within regional jurisdictions where it is reported that significant biosecurity legislation is still outdated.

While old, the *Quarantine Act 1908* is very powerful and relatively flexible. After the outbreak of foot and mouth disease in the United Kingdom, merit was seen by all Australian governments in provision for the application of the *Quarantine Act 1908* post-border, where this was considered necessary to effect an adequate emergency response to such serious diseases. However, detailed consideration of the potential development of uniform national animal and plant health legislation did not lead to the conclusion that such an approach should be pursued, in significant part due to the extremely difficult logistics of achieving timely legislative change in all jurisdictions.

- **Is the *Quarantine Act 1908*, as amended, relevant and effective to meet Australia's current quarantine and biosecurity needs? Should it be rewritten and modernised?**

The test here would be to ask whether AQIS is prevented in any way from delivering its quarantine functions by gaps, weaknesses or ambiguity in the current legislation. From QEAC's perspective this appears not to be the case. If that is also AQIS's view, there would appear to be little, if anything, to be gained by elevating the priority of such a project.

- **Should the human health aspects of the Act be removed and placed into a separate (new) Act administered by the Department of Health and Ageing?**
- **Are Australia's legislative arrangements designed to manage relevant environmental and marine threats effectively?**

It would need to be clearly demonstrated that there were significant net advantages in the separation of human health and environmental concerns from AQIS's responsibility. Prima facie, the current arrangements are adequate and sufficiently flexible such that any required improvements can be accommodated through the arrangements that AQIS has other relevant government agencies.

The current arrangements for the Imported Food Inspection program, where Food Standards Australia New Zealand (FSANZ) sets the food risk assessment policy and AQIS delivers the inspection and sampling service, appear to work well.

It is also the case that human health and environmental issues will often be intertwined with plant and animal quarantine concerns. For example:

- Australia is free of rabies and preservation of our status is assured through arrangements for the importation of dogs through our quarantine systems.
- Japanese encephalitis (JE) remains a serious threat in the tropical north, but monitoring for JE is carried out under NAQS through the bleeding of sentinel and wild animals.
- Botanists under the NAQS program are aware of the risk of establishment of new weeds – e.g., Siam weed.
- The ballast water activities of AQIS are integrated with ship quarantine issues.

QEAC is of the view that it doesn't make a lot of sense to attempt to separate totally the human health and environmental aspects.

- **Are the different elements of legislative systems (both different Commonwealth legislation, and the state and territory statutes) operating in an effective and complementary manner?**
- **Does the Commonwealth need to consider drafting its legislation and framing its subordinate legislation in such a way as to ensure that any state, territory or local government action, which would have the effect of frustrating a Commonwealth decision or its actions to implement the SPS Agreement, would be over-ridden?**

The Sanitary and Phytosanitary (SPS) Agreement provides, in Article 13, that

“Members are fully responsible under this Agreement for the observance of all obligations set forth herein. Members shall formulate and implement positive measures and mechanisms in support of the observance of the provisions of this Agreement by other than central government bodies.”

The intention of Article 13 is that the Commonwealth would have the power, by legislation if necessary, to ensure that States did not impose import access restrictions stricter than those determined by the Commonwealth where there is no sanitary or phytosanitary justification for doing so. The decision by Tasmania to ban salmonid imports from Canada would appear to be contrary to the intention of Article 13.

- **Should an import permit be used to restrict a product from a particular region in Australia if it is determined on a scientific basis to be regionally free of a pest or disease, while still allowing general access to the Australian market?**

The SPS Agreement is clear that Australia can act in this way. However, historically there has been little effort by BA and AQIS to address regional differences in pest risk and/or pest prevalence. Australian Government agencies appeared to prefer a “Big Mac” approach to Australian quarantine, with national approaches to be applied in all regions/jurisdictions irrespective of regional differences in pest prevalence or biosecurity risk. This reluctance to address regional differences was particularly confusing to stakeholders when they observed willingness, even keenness, of BA and AQIS to apply regional approaches to progressing market access for Australian exports to other countries.

The attitude of BA in this area has changed in recent years, and the most recent changes to the IRA Handbook, reinforce the Australian Government's commitment to take into account regional differences when establishing national quarantine policies and measures. The Director of Quarantine has implemented differential regional measures, for example, in the case of the importation into Australia, but not Western Australia, of fresh table grapes from California due to

different pest status in Western Australia. Similarly, the draft IRA for Apples from New Zealand recognises Western Australia's freedom from the insect pest codling moth and the disease apple scab. However, such regional approaches are difficult to implement if substantial regional quarantine systems are not in place. This is currently so only for Western Australia and Tasmania.

- **Are there other models (either domestic or international) for jurisdictional or legislative arrangements which could be more effective?**

See comments above.

C3. Jurisdictional and institutional arrangements

- **Is the division of roles and responsibilities between government, industry and individuals appropriate? Are they working well in practice?**
- **What measures should be used to ensure their effectiveness?**

The division of responsibilities between Commonwealth and State Governments, with some exceptions, is appropriate and appears to work well. The States make a significant contribution to the IRA process through the technical and scientific expertise that they employ. They play the vital lead role in post-border containment and eradication processes. On a more ad hoc basis, the States also contribute to export certification arrangements, for example, through maintenance of the monitoring and surveillance systems necessary for the certification of pest free areas and through the audit of dairy export establishments.

Some exceptions are:

- Investigation of post-quarantine detections – the Primary Industries Standing Committee (PISC) has called for advice on the respective roles and responsibilities of the Commonwealth and States/Territories in the follow up and investigation of reports of suspected post-quarantine detections. Irrespective of the desirable sharing of responsibilities between AQIS and States/Territories, it is apparent that the rapidly expanding imports, in wooden articles and other quarantine risk material, necessitate both a higher level of public awareness and more effective co-operation between national and regional biosecurity agencies to ensure that these risks are efficiently and effectively mitigated – and the cost of that mitigation borne by the appropriate parties.
- State-based service delivery in Tasmania – Up until the 1990s, quarantine operations were delivered by State Governments under agency arrangements with the Commonwealth. Progressively, the Commonwealth, with the agreement of the States/Territories, has resumed direct service delivery responsibilities in all States and Territories except Tasmania.

Tasmania delivers an interstate quarantine capability alongside the national quarantine arrangements. Western Australia is the other State with a significant interstate quarantine capability. The current arrangement with Tasmania may offer some (albeit minor) efficiencies through the combining of the national and interstate functions. However, AQIS has had concerns about transparency and potential cross-subsidisation. QEAC is concerned that as Tasmania moves to implement its own ALOP in a manner inconsistent with the SPS Agreement, the Commonwealth should not be seen to be supporting in any way the service delivery mechanisms that give effect to State decisions.

There has been a long involvement of industry in AQIS's export certification systems. The development of quality assurance systems in individual firms (which address importing country requirements as well as the commercial requirements), has enabled AQIS to progressively move back from primary inspection to an audit/assurance role.

The engagement of industry in quarantine activities is a more recent development and is confined largely to the Import Clearance program. Arrangements for “Quarantine Approved Premises” and “Compliance Agreements” provide for industry to perform functions previously performed by AQIS under arrangements where AQIS now steps back to an assurance/audit role.

QEAC considers that there is scope to substantially expand the spread and uptake of such arrangements. For community confidence in such arrangements and industry acceptance of them, it will be essential that:

- They are administratively streamlined – at present they are subject to apparently unnecessary ongoing administrative intervention from AQIS.
- They clearly spell out the respective roles of AQIS and the firm.
- They offer benefits to the firm in terms of their commercial objectives.
- There is an adequate audit regime to support them.
- Non-compliance with quarantine requirements brings immediate sanctions.

- **What other administrative models could be considered to implement quarantine and biosecurity policy?**
- **Is there appropriate interaction between Biosecurity Australia, AQIS and the Product Integrity, Animal and Plant Health Division and other relevant Commonwealth and state and territory agencies?**
- **Should the current approach, which separates the roles and responsibilities of AQIS, Biosecurity Australia and the Product Integrity Animal and Plant Health Division, be integrated?**
- **Should the quarantine and biosecurity function be integrated within the Department of Agriculture, Fisheries and Forestry, or exist as a separate agency (statutory authority)?**

There have been significant changes to structures in the period following the implementation of the Nairn Review:

- BA was formed taking most of the Quarantine and Exports policy outside AQIS
- PIAPH has grown in breadth and depth and assumed responsibilities, many of which were previously carried in AQIS.

These changes have left AQIS with a very limited scientific/technical capability in its quarantine functions, mainly concentrated in the NAQS program, the post-entry quarantine stations and the limited Operational Science program which supports regional field services with pest identification etc.

Any structural separation brings with it the potential risk of poor communication between the various parties, competing priorities, issues of access to specialist expertise and development of operational systems without the requisite degree of specialist input.

Concerns have been expressed by industries associated with the Import Clearance program that AQIS now plays ‘second fiddle’ to BA which is seen to be an agency that is remote from industry concerns and the realities of their environment, takes a highly theoretical approach, is too risk averse and is slow to respond.

QEAC shares some of these concerns. The Council considers that the balance of arguments rests in favour of models which provide for greater integration of functions and responsibilities across the quarantine continuum.

The functions that AQIS and BA discharge have a significant public interest element associated with them, as they deal with matters of public health and the well being of animal and plant production systems, that make a substantial contribution to the Australian economy. It is appropriate therefore that ultimate authority for the discharge of these functions rests with the

Minister. Political sensitivity in quarantine is focussed mainly on the IRA process and decisions. The current arrangements, where decisions are taken by the Director of Quarantine, assist in ensuring that there is no opportunity for political issues to influence the decision making processes.

QEAC recommends that the role of BA be brought back into AQIS. The PIAPH role could also be accommodated within the formal AQIS structures or continue as a separate division of the Department, reporting to the Secretary through the Executive Director of AQIS (in their Deputy Secretary role) as is the current arrangement.

- **Should the same regulatory agency deal with both exports and imports?**

QEAC can see no powerful case for separation of responsibilities for biosecurity policy and regulation for imports and exports. Splitting responsibilities usually leads to communication difficulties, inconsistencies, capacity-building issues and other problems.

In seeking to gain access to markets for our exports, the same skills are required as for Import Risk Analyses, including a detailed knowledge of the SPS and Technical Barriers to Trade (TBT) Agreements, risk assessment techniques, risk mitigation, and an understanding of operational service delivery realities. In addition, it is often the case that there are highly specialised skills that should not be isolated, for example, knowledge of fish diseases, transmission paths and risk mitigation measures.

- **Is the current decision making role of the Director of Animal and Plant Quarantine appropriate?**
- **Is it appropriate for the Director of Animal and Plant Quarantine to also be the Secretary of the Department of Agriculture, Fisheries and Forestry?**

QEAC considers that the only serious alternative to having the decision making role of the Director of Animal and Plant Quarantine in the hands of the DAFF Secretary, would be for this role to be conducted by the relevant Deputy Secretary. However, this would require significant re-allocation of existing responsibilities such that the Deputy Secretary was not also the Executive Director of AQIS. Such a change would not remove the perception of political influence in quarantine decision making processes as the Director would remain accountable to the Secretary, who is in turn accountable to the Government of the day.

Decisions made by the Director of Quarantine are subject to all aspects of administrative law and the basis of the decisions exercised by the Director of Quarantine is transparent through the IRA process.

- **Who should have the ultimate decision making power on risk policy and import permits – a Minister or an independent public servant or statutory authority?**

Policy is a matter for Governments which determine Australia's ALOP. Within that broad framework, QEAC considers that decision making and administration should rest in the hands of the Department, not a statutory authority.

- **How should wider consumer and economy interests (a national interest test) be incorporated into such decisions (subject to consistency with international obligations)?**

Quarantine decisions, under Australia's ALOP, are directed at protecting the community and our animal and plant production systems while meeting our international obligations. Provided public health issues are safeguarded, approval to import goods into Australia benefits consumers through greater choice and lower prices. Through imports, Australian producers have access to new genetics to improve their productive capability. The Government may consider providing

adjustment assistance where competition from imports impacts on Australian producers to a significant extent.

- **Do any conflicts result from AQIS' joint responsibilities of facilitation and regulation?**
- **Should the regulator also be a facilitator?**

In its export certification role, AQIS is required to ensure that exports meet importing country requirements and certify accordingly. It can be said that AQIS "facilitates" exports by developing the least complex arrangements necessary to satisfy importing countries, but at the end of the day AQIS must perform its regulatory role in relation to exports.

AQIS does not "facilitate" imports. It endeavours to ensure that the operational processes that it puts in place meet quarantine requirements first and foremost. Only then does it seek to implement the most efficient arrangements for the movement of goods across the border.

QEAC considers that AQIS is in no better or worse position than other modern regulatory agencies, which all have responsibility for achievement of regulatory outcomes through efficient and effective application of the minimum necessary regulatory imposts necessary to achieve the desired outcome.

C4. Culture, efficiency and resourcing

- **Are resources available to Australia's quarantine and biosecurity authorities deployed across the continuum to the areas of highest risk/return?**

QEAC considers that there are significant opportunities available to better align the deployment of existing resources to the areas of greatest risk.

There is currently no objective basis on which the 'appropriate' balance of resources across the continuum might be judged. Understandably, the historical focus by AQIS has been on border activities. While the Government's decisions following the Nairn report significantly raised the focus on the pre and post-border elements of the continuum, the Government's subsequent IQI initiatives appear to have served to refocus efforts at the border.

Significant pre-border activities include:

- AQIS/BA participation in international standards setting fora – including Codex (Codex Alimentarius Commission), OIE (World Organisation for Animal Health) and IPPC (International Plant Protection Convention)
- Capacity building assistance to PNG, Indonesia and East Timor under NAQS
- Offshore pre-clearance activities e.g. offshore quarantine requirements for animals, pre-clearance of military equipment, pre-clearance of Olympic Games athletes
- Development of the Australian Fumigation Accreditation Scheme (AFAS) which, with funding assistance from AusAID / International Agricultural Co-operation Program (IACP), has been fully implemented with Indonesia, Malaysia, India, and Thailand. Furthermore, AQIS is currently working with quarantine agencies in the Philippines, China and Papua New Guinea to progress implementation in these countries.
- Offshore systems accreditation arrangements e.g. Canadian Accredited Timber Scheme, AQIS and third party audit of manufacturers and load ports for bulk fertiliser shipments.

QEAC recommends that a comprehensive, medium term, strategy for the pre-border element of the continuum be developed encompassing the full range of quarantine activities to guide future judgments about resourcing.

Post-border activities are generally the responsibility of States and Territories. They establish and maintain animal and plant health surveillance and monitoring systems and play the vital lead role in post-border containment and eradication processes. The Commonwealth is also involved in post-border activities including:

- National emergency response planning and preparedness through PIAPH
- Monitoring and surveillance in coastal Northern Australia under NAQS
- Port monitoring and surveillance including insect trapping arrangements
- Post-quarantine detections follow up (these arrangements are currently under review through PISC).

It is vital that there be a clear definition of the respective responsibilities of the States/Territories and the Commonwealth in relation to post-border activities, and that there is adequate funding at all levels of Government to support monitoring, surveillance, diagnostic, and emergency response arrangements.

- **Is the emphasis on screening international air passenger arrivals, air cargo, sea cargo, ships/passengers/baggage at seaports from overseas and international mail consistent with risks and returns?**

QEAC has a number of significant concerns about the current deployment of resources at the border and recommends that AQIS to be given the authority to apply resources according to the relative assessment of quarantine risk.

Of primary concern is the lack of comprehensive risk profiling data to ensure that operational resources are being deployed to the areas of greatest risk. The existing information technology systems that underpin AQIS's quarantine programs are antiquated, inflexible and fragile. They are based on architecture that differs from one activity to another and that do not allow the capacity to trace back problems to their origin. In the Import Clearance Program alone there are some 15 separate databases that cannot report information in a consistent manner and/or be easily interrogated to identify high risk areas.

AQIS must have the authority to apply resources according to the assessment of risk of various pathways, regions and operations. The constraints placed on AQIS under IQI – which tied expenditure to pre-agreed pathways and activities despite subsequent conclusions that this resourcing did not match the risk distribution – has seriously reduced the credibility of AQIS in recent years.

QEAC is concerned that there are numerous instances where Government decisions and/or AQIS practice have led to the ongoing commitment of resources which is clearly not justified by reference to quarantine outcomes. Examples include:

- 100% inspection of High Volume Low Value (HVLV) consignments – in the past four years the non-conformance rate has been 0.04% or less of all consignments. The main reason for non-conformance appears to be very small amounts in most cases of personal effects, confectionary, food such as soup mixes, meat and bone material, biological material, seeds, wooden items, spices and other dried plant material.⁹
- 100% inspection of the external surfaces of air cans – in the past two years the non-conformance rate has been less than 0.1% of all consignments. The main reason for

⁹ Source: AQIS, Import Clearance Program. AQIS reports that validation testing in last year has detected only 3 finds thus supporting their view that they are very effective at identifying quarantine material in HVLV through the initial x-ray screening process.

non-conformance appears to be minor soil splash, which AQIS has suggested may even have occurred after arrival in Australia.¹⁰

- 100% inspection of the external surfaces of sea containers – the High Level Contamination rate (requiring washing of containers) is now less than 1.0%. In addition, containers that are to be moved to rural or rural-fringe areas are subject to AQIS tailgate inspections. QEAC considers that a risk-based system of inspection should be adopted, including the introduction of Co-regulatory arrangements for inspection of containers in Quarantine Approved Premises (QAPs)
- 100% inspection of incoming vessels – in 2006-07, 91% of vessel arrivals complied with quarantine requirements. There are many vessels that have a 98 - 100% record of compliance over many years.
 - AQIS is currently developing a risk-based vessel inspection model which QEAC fully supports.
- Double handling of some goods, including fresh fruit and vegetables which are inspected at airports for verification and sealing before transfer to QAPs; 100% inspection of nursery stock prior to mandatory treatments; presentation of permits to AQIS front counters before goods are allowed to move – most are then subject to inspection.
- Requirements that Customs Brokers present documents to AQIS front counters for clearance when many brokers have long records of 100% compliance.
- ‘Double handling’ of QAP/Compliance Agreement (CA) clients where firms are subject to ongoing audit and assessment, yet are required to reapply regularly (annually or biennially) for re-registration.
- Continued inspection by AQIS of goods imported by firms that have long records of 100% compliance.
- Potential ‘double handling’ of passengers and baggage at international airports where passengers may be subject to detector dog examination and then X-ray examination.

- **Is there sufficient development of, and reliance on, pre-border intelligence?**

The disease notification requirements of the OIE and IPPC enable AQIS to adjust its border operations to emerging risks. Australia’s overseas posts – particularly those with DAFF representatives in key markets – also contribute information on significant issues. Australian industries can also be a valuable source of information about on the ground developments in other countries, but there is currently no formal means for this to occur.

- **Are there opportunities for greater alignment between pre-border application and information requirements for quarantine, customs and immigration to streamline processes and enhance risk management? Could there be opportunities for greater rationalisation of staff, IT systems and screening investments?**

The existing arrangements between AQIS and Customs are efficient and seem to work well. For imported goods, the Customs system (ICS) is the preliminary profiling point for referral of cargo to AQIS for quarantine clearance. QEAC does not see any significant opportunities for further rationalisation.

As noted earlier there is an opportunity to extend the Customs ships’ hull inspection to include bio-fouling inspections.

¹⁰ Source: AQIS, Import Clearance Program.

- **Is there sufficient priority given to monitoring and surveillance post-border? Who should provide these functions and resources?**

As outlined above, QEAC is of the view that substantial improvements are possible, and necessary, in the partnership between BA/AQIS/PIAPH and State/Territory agencies.

It is normal practice for the end result of any industrial or business practice to be monitored for its effectiveness and quality. While AQIS conducts 'green channel' surveys and employs other in-house methods to monitor effectiveness, there is neither any independent monitoring nor any end point (post-border) monitoring. The latter would necessitate effective information sharing between AQIS and State/Territory agencies to enable effective targeting of post-border surveillance, and commitment of States/Territories to use this process as a mean of working with AQIS to improve the nation's quarantine risk measures, not to publicly criticise AQIS for any inadequacies. This will require a significant cultural shift in the current relationships.

- **Do the arrangements to recover costs of aspects of the quarantine and biosecurity system appropriately reflect the balance between public interests and private benefits? Are there alternatives which would provide improved incentives and resources to better reflect the balance of national interests?**
- **Does cost-recovery have an impact on the ability of AQIS staff to deliver public good outcomes?**
- **Does cost-recovery limit monitoring of pests and diseases at the border, for example where the product is treated or destroyed to minimise the costs to the importer?**

In general terms, parties should contribute to the cost of mitigating quarantine/biosecurity risk according to their ability to do so, and ability to capture the benefit of risk mitigation. For quarantine risk, this usually means that those parties responsible for creating the risk (usually those associated with imports), should meet the majority of the cost where this can be cost-effectively achieved. Similarly, for exports and market access, Australian parties have responsibility for ensuring that risk to international customers (and customer regions/countries) is effectively mitigated at the cost of the risk-creator.

New Zealand biosecurity authorities appear to have made better progress than their Australian counterparts in establishing an appropriate and solid basis for cost-recovery approaches. Closer cooperation between BA/AQIS and Biosecurity New Zealand would probably deliver significant benefits to both parties and to stakeholders.

The current funding arrangements, when looked at from an individual quarantine program perspective, appear to be generally appropriate. For example, it is logical that where the costs can be directly attributed to those (e.g. importers) who give rise to the potential pest and disease risks, they are cost-recovered. Where programs address risks that arise in a more indirect way (e.g. through geographical, climatic concerns) – they are budget funded.

Over time, however, a number of issues have arisen that in QEAC's view militate against the optimal allocation of resources for quarantine risk management purposes.

The current funding arrangements may be broadly classified as follows:

- Mainly Budget funded
 - BA - IRA and Technical Market Access
 - NAQS
 - International mail
 - Post-Entry Plant Quarantine (PEPQ)
- Notionally cost-recovered
 - Airports
- Mainly cost-recovered

- Import Clearance
- Seaports
- Post-Entry Animal Quarantine

The Council has the following concerns about the current arrangements:

- AQIS's capacity to reallocate resources flexibly across programs to address areas of emerging risk is limited. For example, if it were determined that the balance of risks required that resources were to be shifted from Import Clearance to International Mail, the current funding and cost recovery arrangements would make this very difficult to achieve.
 - Demand driven programs funded via the budget (International Mail and Airports) are not able to generate sufficient resources to match increasing demands. For example, the Airports program, notionally funded via the Passenger Movement Charge, has a forward budget allocation that does not reflect the 7% increase in passenger numbers each year.
 - Very specific allocations within programs determined by intervention targets (e.g. inspection of external surfaces of air cans) lock resources into activities that may not generate the best quarantine outcome.
 - Where cost-recovered programs require funding to address systemic issues e.g. the modernisation of AQIS's information technology base, they are not able to do so.
 - Community Service Obligation (CSO) functions – eg policy advice, surveillance activities and compliance at the program level – are not adequately defined in each of AQIS's cost-recovered programs. These functions, which should be funded through the budget, are often cost-recovered, for example, in the Import Clearance Program.
 - Historical allocations fixed at levels determined many years ago (e.g. the PEPQ 'anti-smuggling' subsidy) may not reflect the true cost of the activity or represent the most optimal way of achieving quarantine outcomes.
 - The temptation to build in 'allowances' to AQIS charges to cover some of these issues (e.g. the draft recommendation from the EI Inquiry recommending an allowance of a 10% for "contingencies") increases the risk that the charges could be challenged as a form of taxation rather than as fee-for-service charges.
- **To what extent and under what conditions is it appropriate to use private facilities in the quarantine and biosecurity system? Are the current monitoring, auditing and supervision arrangements for public and private quarantine facilities effective?**
 - **Are the current import and export certification processes, the auditing of those processes in their application, and the surveillance of their operation, appropriate? Can the administration of import and export certification arrangements be streamlined?**

The Government has endorsed the concept of 'Shared Responsibility' as one of the underpinning themes for the development of Australia's quarantine systems. AQIS has moved to implement the principle across its quarantine programs to give effect to the Government's decisions in a manner that reflects the operational realities of individual programs.

AQIS-approved private facilities operate successfully in a number of respects:

- Quarantine Approved Premises (QAPs) for imported goods, including biological materials
- Compliance Agreements (CAs) for certain commodities, e.g. new tyres, NZ dairy products, imported foods
- Post-entry plant and animal quarantine stations.

It is essential that any such arrangements are supported by auditing arrangements by AQIS that reflect the degree of quarantine risk associated with them. It is also important that there be a range of sanctions that are applied (e.g. suspension, termination) in the event of non-conformance with approved arrangements. Given this, QEAC is of the view that arrangements using accredited private facilities can deal with low and medium risks effectively – AQIS managed facilities are considered essential in dealing with high risk material.

AQIS has identified that there are inconsistencies in the Import Clearance program audit frequency and follow up processes in its QAP/CA arrangements. This appears to have been the consequence of the development of arrangements to meet specific requirements without sufficient regard to other existing arrangements.

QEAC notes that the further development and expansion of co-regulatory arrangements in the Import Clearance program are being hindered by the following factors:

- Ongoing requirements for physical inspection of low risk items (e.g. external surfaces of air cans, High Volume Low Value (HVLV) items)
- Incapacity of IT systems to support risk profiling which would enable AQIS to target low risk commodities/importers for the extension of co-regulatory arrangements
- Commitment of resources to administrative processes which in QEAC's view are unnecessary.

At present, there are requirements that QAPs (facilities) and CAs (facilities and staff) be registered and re-registered on a frequent cycle.

- QAPs are required (by legislation) to apply annually for re-registration by AQIS.
- CAs are required (by AQIS 'policy') to apply bi-annually for re-registration.

These requirements place significant administrative demands on industry and AQIS. If there are effective audit arrangements in place, and sanctions are applied as necessary on an ongoing basis, QEAC can see no need for the re-accreditation process. If the QAP/CA performs to the required standard it should continue to be accredited.

- **Are the requisite skills and disciplines available to deliver optimal quarantine and biosecurity systems? If not, what are the highest priority areas? Is the education and training of personnel with these skills adequate? If not what are the highest priority areas?**
- **Is infrastructure such as diagnostic laboratories and containment facilities adequate to meet quarantine and biosecurity needs? If not what are the highest priority areas?**

Within AQIS, BA and PIAPH, supported as necessary by other DAFF resources, there is a broad range of extremely well qualified staff with scientific, technical and management skills. From time to time, there will be requirements for access to very specialised skills that may not be available internally. It is important in these cases that DAFF continue to contract the skills in these areas where necessary.

Some AQIS programs have identified continuing capacity to recruit staff with the necessary skills as a potential risk to program outcomes that needs to be addressed. For example, the AQIS Meat Inspection program has a rapidly ageing workforce and experiences difficulty attracting staff to work as meat inspectors. These matters should be managed on an ongoing basis through AQIS's internal program business planning processes.

Given the rapid development of technology there would be benefit in AQIS undertaking a cyclical review of its laboratory facilities and equipment – this could be conducted with the assistance of external experts.

C5. Communication and consultation

- **Australia's ALOP is very low, but not zero. Is this understood in the relevant communities?**
- **What mechanisms could be adopted to improve communication of this policy setting? For example, are there opportunities that Australia should be pursuing with trading partners to improve the understanding of Australia's quarantine and biosecurity system?**

Successive reviews of Quarantine have emphasised the conclusion that there cannot be a “zero risk” approach to quarantine in Australia. Whether by natural means (wind-borne virus), illegal means (smuggling), or inadvertent means or by break down in systems, there will be, from time to time, incursions of exotic pests and diseases into Australia. Given the volume of movements of goods and people into all parts of the country and the inability to examine every element of every such movement, there will be occasional incursions. Notwithstanding these realities there continues to be a virtual ‘zero risk’ ambition among some stakeholders and sections of the community.

The post-border element of the continuum is generally not recognised as an integral element of our quarantine systems but rather as something that is triggered “when our quarantine system has failed”. There does not appear to be the same public view of the “failure” of Customs to detect all drug importations.

It is important that AQIS has an ongoing funding capacity to promote a better understanding of quarantine matters. QEAC also has a role to play in engaging industries and other stakeholders in an endeavour to gain their support for the messages that AQIS delivers.

- **Are the various industry consultative arrangements with AQIS appropriate and effective?**

The Industry Consultative Committees (ICCs) are very important for their interchange of information, needed direction and identification of mutually agreed priorities. However, it is QEAC's view that a full assessment of their effectiveness and representative balance is now due. At present, some ICCs are working well, whereas others are not, and one has been disbanded altogether.

In QEAC's view the current arrangements are an appropriate foundation for effective industry consultation, however, the industry consultation measures could be significantly improved via:

- Clearer demonstration from AQIS/BA that it highly values the input of the committees and translation of this into tangible, mutually beneficial and effective quarantine outcomes.
- A willingness on the part of AQIS to change its culture to be more accepting of new industry ideas
- A greater focus on “two way” communication and greater consultation rather than just simply reporting back to industry
- A mechanism which could be put in place to gain, annually, an objective report of the views of the major stakeholder cohorts for each sector (e.g. independent survey or facilitated focus groups).

It could also be argued that further effectiveness could result from more regular refreshment/replenishment of the membership of the various Industry Consultative Committees (ICCs). This would prevent ‘client capture’ and complacency from emerging within these committees.

It should be noted, however that the ICCs, should not be the only form of communication or consultation with industry stakeholders. All AQIS programs should have an appropriate broader communication strategy that includes an ICC.

- **Is the Quarantine and Exports Advisory Council an effective forum for advising the Minister and Director of Animal and Plant Quarantine of quarantine and biosecurity issues?**

The establishment of QEAC in 1997 was part of the Government's response to the Nairn Review. The Council exists to "provide advice to the Minister and the Director of Quarantine on major quarantine and export certification policy issues and strategic directions for AQIS, and ensures effective consultation between AQIS, industry and stakeholders. "

During its first five years of existence, it had a busy agenda with oversight of AQIS's implementation of the Government's decisions in response to the Nairn Review, development and refinement of the IRA process and handbook; and the conduct of major reviews into the NAQS and Horticulture Exports programs.

The Council acknowledges that its focus has evolved from what it was established to provide during the following five year period. This can be characterised by:

- Continuous reports from programs by rotation, but no formal programs reviews being conducted;
- The portfolio Minister not requesting advice, and little formal advice being provided to the portfolio Minister – advice tending to be verbal and provided to advisers to the Minister.

During the above period, QEAC chose to work on a one to one basis with senior DAFF/AQIS officers and the Minister's office. Current QEAC members are strongly of the view that the Council plays an important role but there is room to improve its effectiveness.

In this regard, QEAC members have recently discussed the need to return to a more disciplined approach to the Council's terms of reference. Further discipline could be imposed formally by:

- (1) referencing QEAC in the Quarantine Act; and
- (2) requiring that QEAC report annually and publicly, maybe to Parliament.

The above initiatives are intended to develop a formal mandate that remains clear and effective despite changes to Council membership, the Director of Quarantine and the portfolio Minister. This should better focus the activities of the Council and leave it less susceptible to the preferences of DAFF interests.

- **Are the consultative arrangements used during import risk analyses appropriate and effective? Are the outcomes of import risk analyses effectively communicated to domestic and international stakeholders?**

It is QEAC's view that the IRA consultative arrangements are adequate and effective, and the outcomes are effectively communicated to the multiplicity of stakeholders using a range of communication tools.

- **Are current quarantine and biosecurity education and awareness programs effective? What methods can be used to assess the effectiveness of quarantine and biosecurity communication?**
- **Are existing communication tools to encourage the reporting of suspected exotic pests and diseases, such as the *Spotted Anything Unusual?*, effective?**

It is important that AQIS has an ongoing funding capacity to promote a better understanding of quarantine matters.

C6. Research

- **How should the effectiveness of research on quarantine and biosecurity issues be evaluated?**
- **Is research appropriately funded, coordinated and prioritised?**
- **Is the distribution of the research effort appropriate along the quarantine and biosecurity continuum?**
- **What methods could be used to set and review research priorities across the continuum? Who should establish and review research priorities? In the context of competing research priorities, is sufficient emphasis given to research on new technologies for use in quarantine and biosecurity, including as control measures, in product integrity, and certification systems?**
- **In the context of competing research priorities, is sufficient emphasis given to research on risk analysis methods?**
- **How effectively is new information from research activity incorporated into Australia's risk management measures?**
- **Are there any critical information or knowledge gaps that can be remedied to support better research and policy outcomes?**
- **Who should pay for quarantine and biosecurity research?**

QEAC is of the view that the scientific capability of AQIS and BA needs to be enhanced and sustained.

QEAC has received feedback of concern in relation to:

- Stakeholder pressure placed on BA staff throughout the conduct of complex IRAs makes continued work in this nationally important area unattractive. Furthermore, Australian stakeholders in these high profile IRAs could in fact contribute to reduced capability to deliver them.
- Concern that AQIS operations run the risk of focusing excessively on processes rather than the desired outcome for AQIS operations, namely cost-effective mitigation of biological risk. Maintenance of a suitable and high level of scientific expertise throughout AQIS is essential.

QEAC sees the need for research in a number of areas:

- To support IRA processes – there are often gaps in, or doubts about, scientific knowledge used to support potential treatment regimes to minimise risk to acceptable levels. From time to time BA may need to commission research to fill these gaps or to validate results which may be challenged by stakeholders. An example would be commissioned research to examine the time/temperature parameters necessary to deactivate viruses.
- To validate AQIS treatment processes – are there reliable alternatives to methyl bromide fumigation and what time/concentration parameters meet the risk from the range of potential pest targets?
- To develop risk assessment methodology – research into the 'science' of risk assessment; and development of quantitative models that enable better identification of risk arising from goods and people entering Australia and allow AQIS to better target interception effort at the border.

- The new and emerging risks to biosecurity – including climate change and the emergence of nano-technologies.
- To strengthen national monitoring systems – jointly with the States/Territories there should be an ongoing process of further developing national monitoring systems to strengthen the third element of the quarantine continuum

At present there appears to be no identifiable resource or process for establishing research priorities for quarantine and biosecurity within DAFF. QEAC recommends that such a process should be developed to enable the full range of research needs of DAFF to be addressed in a systematic way.

C7. Review

- **Are existing monitoring and review mechanisms for quarantine and biosecurity policy and operations appropriate and effective? If not, what options should be considered, and why?**
- **Who should conduct reviews?**
- **Have the findings from recent reviews of policy and operations been adequately addressed and implemented?**

It is important that monitoring and review arrangements are carried out in an environment where achievement of optimal quarantine outcomes is the single most important objective. QEAC is concerned that the August 2007 Ernst and Young Review – “Review of Quarantine Border Security Strategies and Policies” – focussed heavily on process and throughput, and not on quarantine outcomes. In addition it focussed only on part of AQIS’s border operations not its entirety.

To ensure that there is a focus on quarantine outcomes, the review and monitoring process should occur in a context where there is a broad understanding of the complexity of Australia’s quarantine systems:

- An effective internal audit/review capability in AQIS would ensure that program management and operational staff are operating effectively and to the required standards to discharge the program requirements.
 - The EI Inquiry has produced evidence that this has not been a strong focus for AQIS.
- An effective external review/evaluation capability would ensure that higher level program goals are set to the requisite standard and that they are being met. This should be the role of QEAC. It would require a move back to more intensive and detailed program reviews than is currently the case and access to specialist resources for the duration of each review to support the (necessarily) part-time involvement of QEAC members.
- **Is monitoring of the quarantine and biosecurity continuum targeted at the right areas (e.g. primarily at the border)? Is there a process to ensure that the results of monitoring are being used effectively to improve the operation of the system?**

QEAC considers that there is an urgent need to rapidly upgrade AQIS’s program performance management systems to enable monitoring of the effectiveness of AQIS programs on an ongoing basis and to provide the risk analysis necessary to support the most effective deployment of operational resources.

Of necessity, this will focus significantly on border operations where the vast bulk of AQIS resources are deployed.

However, there is also a need to ensure the efficacy of pre-border systems. Some of this monitoring may take place at the border – e.g. to ensure the efficacy of overseas fumigation systems. But there will also be a need for a structured program of review of quarantine systems delivered offshore to ensure that they are operating to the required standard.