

<b>ACERA Project</b>		
2006 Round 1, Project 09		
<b>Title</b>		
Stakeholder mapping for effective risk assessment and communication		
<b>Author(s) / Address (es)</b>		
Jane Gilmour and Ruth Beilin, University of Melbourne		
<b>Material Type and Status (Internal draft, Final Technical or Project report, Manuscript, Manual, Software)</b>		
Project final report		
<b>Summary</b>		
<p>The aim of the report was to review and evaluate methods for stakeholder mapping. The report intended to explore applications in biosecurity risk management, and to recommend potentially fruitful direction for testing methods that might improve the efficiency of stakeholder interactions.</p> <p>The report reviews a range of options and outlines in detail the definition and identification of stakeholders, and procedures for mapping influence and interest. It uses a workshop run by ACERA on volume of trade to illustrate the basic features of these methods. The report concludes by discussing the merits and weaknesses of the mapping approaches. It recommends their use to improve the efficiency of interactions and to improve transparency of process.</p>		
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## **Stakeholder mapping for effective risk assessment and communication; ACERA Project 06/09**

Dr Jane Gilmour; ACERA  
Associate Professor Ruth Beilin, University of Melbourne

Review; April 2007

## **Acknowledgements**

This report is a product of the Australian Centre of Excellence for Risk Analysis (ACERA). In preparing this report, the authors acknowledge the financial and other support provided by the Department of Agriculture, Fisheries and Forestry (DAFF), the University of Melbourne, Australian Mathematical Sciences Institute (AMSI) and Australian Research Centre for Urban Ecology (ARCUE).

## Table of contents

<b>Acknowledgements.....</b>	<b>3</b>
<b>Table of contents.....</b>	<b>4</b>
<b>List of Tables .....</b>	<b>5</b>
<b>List of Figures.....</b>	<b>6</b>
<b>1. Executive Summary .....</b>	<b>7</b>
<b>2. Introduction .....</b>	<b>9</b>
<b>3. Stakeholders and risk analysis .....</b>	<b>10</b>
<b>4. A framework for stakeholder analysis and mapping.....</b>	<b>15</b>
<b>5. Analysing and mapping stakeholders: examples from the literature .....</b>	<b>27</b>
<b>6. Example and discussion.....</b>	<b>31</b>
<b>7. Conclusion and recommendations.....</b>	<b>43</b>
<b>8. References .....</b>	<b>45</b>
<b>9. Appendices .....</b>	<b>52</b>

## List of Tables

Table 4.1	Stakeholder Identification Template .....	p.16
Table 4.2	Stakeholder Analysis Framework .....	p.18
Table 4.3	Stakeholder Analysis Framework (hypothetically partially completed) .....	p.23
Table 4.4	Spectrum of Public Participation .....	p.24
Table 6.1	ALOP Workshop - Stakeholder Identification .....	p.30
Table 6.2	ALOP Workshop - Stakeholder Analysis Framework .....	p.34
Table 6.3	ALOP Workshop - Stakeholder Analysis Framework (hypothetically completed) .....	p.38

## List of Figures

Figure 4.1	The stakeholder model of the corporation .....	p.16
Figure 4.2	A stakeholder model for Biosecurity Australia.....	p.17
Figure 4.3	Influence vs interest map .....	p.18
Figure 4.4	Stakeholder relationships and patterns of influence .....	p.20
Figure 4.5	Stakeholder-issue relationship map .....	p.20
Figure 4.6	Problem-frame stakeholder map .....	p.21
Figure 4.7	Integrated stakeholder analysis map .....	p.22
Figure 5.1	Mapping across the dimensions of MCI's value system .....	p.26
Figure 6.1	ALOP Framework – Stakeholder influence vs interest map .....	p.35
Figure 6.2	ALOP Framework – Stakeholder-issue relationship map .....	p.36
Figure 6.3	ALOP Framework – Problem-frame stakeholder map .....	p.36
Figure 6.4	ALOP Framework – Integrated stakeholder analysis map .....	p.37

## 1. Executive Summary

Based on a review of the literature, we find that, within the public sector, there is a growing challenge for government to meet community and sectoral expectations and to develop effective relations with stakeholders that will further organisational objectives and policy outcomes. Managers decide to involve stakeholders in public decision-making for a number of reasons. They bring useful and relevant knowledge to the decision-making process; there is more likely to be stakeholder acceptance of the decisions, even if those decisions do not necessarily reflect individuals' desired outcomes; and, to respond to changing community and sectoral expectations.

Biosecurity Australia operates within a tightly bounded environment, with accountability to international trade agreements and a nationally agreed policy on Appropriate Levels of Protection. Within this framework, stakeholder engagement can contribute to the effectiveness of risk assessment and communication by improving access to relevant information and improving stakeholder acceptance of decisions and trust in the process. A strategic approach to stakeholder relations has the potential to improve efficiency in import risk analyses, reducing time and resource commitments and minimising the potential for politicization.

In order to engage strategically with stakeholders, it is critical to know who stakeholders are, what their needs are, what their expectations are of a particular issue or policy, how they are likely to react and what influence or power they can bring to bear on the issue.

A range of tools available for stakeholder analysis and mapping will be useful to people working in risk assessment and communication. We present practical models for undertaking a comprehensive stakeholder analysis that can be used as the basis for stakeholder engagement. We show how the stakeholder analysis can assist in identifying areas of shared interest which can be the basis for developing coalitions of support.

These tools were applied in a hypothetical example based on a workshop that ACERA was invited to host titled the Integration of Risk over Volume of Trade and Time. The sample size and scope of this workshop meant that its value is purely illustrative of the application of the tools.

Based on our review and the pilot application of the tools, we find that stakeholder analysis and mapping provide a transparent and inclusive framework for a strategic approach to stakeholder engagement in biosecurity risk assessment and communication, without risking the creation of unrealistic expectations among stakeholders.

## 2. Introduction

The Australian Centre for Risk Analysis was established in 2006 to undertake research and develop best practice models for risk analysis, with specific reference in the first instance to biosecurity. This review and case study were undertaken within the framework of ACERA's work program. The specific objectives of this project are to:

- review methods for stakeholder mapping
- develop and test a methodology that will enable researchers and government agencies evaluate the potential value of stakeholder mapping as a key process in effective stakeholder engagement with respect to biosecurity risk assessment
- recommend approaches to the development of stakeholder maps and their application to biosecurity risk analysis

This project links to ACERA's objectives, with specific relevance to the following objective:

- to document and communicate research findings to ensure governments and others engaged in risk analysis have access to state-of-the-art risk analysis methods and raise the community's understanding of risk.

In developing a methodology for stakeholder mapping around risk issues, we have sought to provide a model for:

- identifying stakeholders relevant to a specific issue;
- identifying their position (knowledge base, attitude, influence and interest) in relation to the issue and in relation to other stakeholders;
- engaging them in constructive dialogue that acknowledges diverse sources of knowledge and the levels of uncertainty around these different forms of knowledge; and
- identifying their potential ongoing involvement in the various processes of risk assessment, decision-making and management.

To this extent, we see stakeholder mapping as a critical component of the successful implementation of risk assessment and risk management processes.

Section 3 of this report draws on existing literature to explore and propose a practical framework for stakeholder involvement in risk analysis. A literature search was conducted via Science Direct, EconLit, Australian Public Affairs and PsychInfo databases using the search terms *stakeholder mapping* and *stakeholder AND risk*. In addition, key texts and authors in the field were identified via a University of Melbourne catalogue search. Section 4 looks specifically at stakeholder analysis and mapping, reviewing the range of different approaches presented in the literature and developing a protocol for the application of stakeholder analysis and mapping to biosecurity risk analysis. Section 5 examines a number of examples of the use of stakeholder analysis and mapping from the literature. Section 6 documents a case study undertaken within the context of this project and using the proposed protocol. Section 7 presents the conclusions and recommendations.



## 3. Stakeholders and risk analysis

### 3.1 Why stakeholders matter

Over the past two decades there has been a growing awareness within the business sector that effectively managing stakeholder relations is critical to business success (see Davis, 2005; Donaldson and Preston, 1995; Freeman, 1984 and 1997; Wheeler and Sillanpaa, 1997). There are many examples within the sector of the development of innovative approaches to dealing with changing community and stakeholder expectations. A number of studies have documented the application of different stakeholder engagement processes to achieve improved business outcomes (see Phillips, 2003; Svendsen, 2006; Eden and Ackermann, 1988)

The stakeholder theory of the corporation has a long history. Freeman's seminal work, *Strategic Management: A Stakeholder Approach* (1984), acknowledged earlier work of the Stanford Research Institute, which in 1963 had identified stakeholders as "those groups without whose support the organisation would cease to exist". This had been within the context of a consulting project where the Stanford Research Institute had identified a trend amongst companies to fail to plan for or foresee future legislation or regulation that would incur constraints and costs to the business. Acknowledging the impact of a company's actions was an integral part of taking a long-range view of the company's business prospects.

Freeman took this earlier work of the Stanford Research Institute and developed stakeholder theory as a strategic management approach. The fundamental principle behind Freeman's approach is that there are a number of people, organisations and groups, other than those directly connected to the firm either as investors or employees, who are critical to the firm's success. There have been and continue to be critics of the stakeholder approach to business management, including most notably Milton Friedman who has argued that the goal of business should only be to maximise returns to shareholders within the law. In contrast, Ian Davis, Managing Director of consulting firm McKinsey & Company, wrote in The Economist in 2005, that business needs to manage its contract with society actively if it is to retain public trust and shareholder investment. The proposition that business depends on society for its 'licence to operate' underpins the importance of stakeholder relations to maintaining corporate viability.

### 3.2 Why decisions fail

Decisions taken without due regard to stakeholders may result in both financial and reputational cost to organisations. Shell's decision to sink the Brent Spar oil rig in the North Sea and its actions in Nigeria rebounded with massive consumer boycotts throughout Europe. Nike's treatment of its outsource workers in Asia occasioned similar financially and reputationally damaging consumer boycotts. BHP's failure to take into consideration the livelihoods of the villagers living downstream from its Ok Tedi mine resulted in major law suits against the company. The UK Government's decisions in respect of mad cow disease (BSE) resulted in major losses for the beef industry in the UK and had a significant impact on public trust in the processes of government.

In 2002, Paul Nutt published his findings from an analysis of 400 strategic decisions. Half of the decisions had failed, in large part, because the decision makers had failed to consider the interests of and information held by key stakeholders. Understanding the views of stakeholders opens up a decision-maker's perspective to important cues that help indicate what the decision is about and how stakeholders may react to it.

It is worth outlining one example in more detail. In proposing a deep-sea disposal of its decommissioned Brent Spar oil rig, Shell believed it had acted responsibly. It had considered the costs and dangers of dismantling and dumping it in various locations. However, it had paid little attention to growing public unrest about oil companies. It had government approval for its proposed disposal plan but had not identified the public as a stakeholder and so had not taken into consideration public

concern about deep-sea dumping. The issues of precedent were overlooked, as was the potential for their action to lead to increased regulation if their actions were in fact found by the public to be irresponsible. Shell was shocked by the response to the public announcement of its decision. Greenpeace mounted a high-profile campaign against the company. The media took up the cause and Shell's position became untenable. It was forced to find another way to dispose of the Brent Spar rig. By undertaking its analyses internally, Shell had missed the opportunity to work with environment groups to develop shared data. Both the company and Greenpeace challenged each other's data. By identifying in advance the outcome it wanted, Shell had narrowed the search for solutions and focussed on ways of making deep-sea disposal acceptable (Nutt: 63-68, 74, 121, 241). As many in Shell later admitted, Shell became a victim of its own culture, an over-reliance on finding engineering solutions to issues without looking at the social and environmental contexts in which those decisions were being made. Shell subsequently allocated significant resources to a global stakeholder engagement process which led to its adoption of a sustainability reporting framework from 1998 (see [www.shell.com](http://www.shell.com)).

### **3.3 Stakeholders and the public sector**

In 1999, the Allen Consulting Group published *Stakeholder Relations in the Public Sector: Innovation in Management*. The authors argued that there are long run socio-political changes in our community driving a growth in expectations for participative democracy, rather than the more traditional representative democracy models. Drawing from experience of the business sector, they went on to argue that there is a growing challenge for government to ensure it has effective mechanisms to meet community and sectoral expectation. The older patterns of government consultation and advisory structures seem to be less satisfactory in giving access to community expectations. As business has had to develop its capacity to manage its stakeholder relations, so too must government. A number of drivers for stakeholder relations in the public sector were identified: the growing trend towards participative democracy, arising out of the social movements of the 60s and 70s; growing affluence; increased capacity for critical analysis within the broader community; media pervasiveness; and finally deepening distrust in public and private institutions, coupled with a growing concern with social issues and with individual welfare in the face of an uncertain future.

Under these circumstances, imperatives for stakeholder consultation are likely to grow within the government sector as they have within the business sector. Indeed, due to the direct involvement of many stakeholder organisations in government service delivery in formal purchaser/provider relationships, as well as the extensive informal involvement of stakeholder organisations, groups and individuals in the implementation of government policy, there is an even stronger imperative for effective stakeholder relations within this sector (Allen Consulting Group, 1999).

Feldman and Khademian (2002) argue that managers within the public sector are responsible not only for policy outcomes but also for the appropriateness of the relationships they create and support. Governance in the public sector, they argue, consists of "multiple and reciprocal relationships that constrain and enable actions taken in a policy arena" (p 551). Public managers, they say, play a key role in determining the nature and quality of these relationships. Whilst Feldman and Khademian do not use the word stakeholders, it is clear that the relationships they are talking about are relationships with stakeholders. "It is important for public managers to think about the relationships they are building, the capacity of these relationships to further democratic objectives, and their ability to accomplish policy goals" (ibid: 551).

There are many examples of effective stakeholder relationship management within the public sector, just as there are many examples of where it has either not been an integral part of the strategy or has not worked effectively, resulting in protracted decision-making, significant political lobbying and/or intervention and increasing public disaffection. (See Allen Consulting Group, 1999, also Sainsbury, Smith and Stevens, 1999 for a review of the partnership model for fisheries management implemented by the Australian Fisheries Management Authority.)

### 3.4 Practical benefits of stakeholder involvement

The reasons for stakeholder involvement, both within the private and public sectors, have been variously described within the literature as *substantive*, *instrumental* or *normative*.

- i. The *substantive* argument proposes that involving stakeholders generates better decisions – they have access to information that might not otherwise be available; they can bring local knowledge and practical experience; they can ensure that social and cultural values are taken into consideration. (See Wynne, 1996; McDaniels, 1999; Nutt, 2002; Wheeler and Sillanpaa, 1997.)
- ii. From an *instrumental* point of view, stakeholder involvement means that the decisions are more likely to be accepted by all involved, even if they don't necessarily reflect individuals' desired outcomes. Involving stakeholders results in greater transparency and accountability of the decision-making process. People know that their issues have been addressed and how the decision-making process has taken place. (See Roberts, 2003 for a discussion of how Cadbury in the UK implemented a non-controversial site closure, based on the recommendations from a comprehensive 'working party' process involving managers, engineers and shop stewards. Also, see Syme et al, 1999 for discussion of a research project on water allocations which concluded that "local procedural justice issues, particularly those pertaining to public involvement for local people in decision-making, were significant determinants of judgements of the fairness of the decisions".)
- iii. Finally, there is a moral or *normative* argument for stakeholder involvement in decisions that affect them and their communities. It can be argued that this is achieved through the process of representative democracy, but as the Allen Consulting Group and others have pointed out, there is a changing societal expectation for what is called participative democracy. The Allen Consulting Group acknowledges the challenges this brings to government, but argues that over and above the political style of any particular government or any particular government agency or minister, "all governments need to consider these questions of more effectively tapping community aspirations and enabling deeper community involvement in a range of public policy issues" (Allen et al, 1999: 16).

Whether for better informing decision-making, for legitimating decisions or for improving transparency, stakeholder involvement helps satisfy both the "technocratic requirement for the best decisions" and the "pluralistic requirement for the inclusion of the norms and values of multiple constituencies in the decision-making process" (Glicken, 1999: 303).

### 3.5 Stakeholders and biosecurity risk

The 1996 Australian Quarantine Review emphasised the need for early consultation with key stakeholders and a partnership approach to import risk analysis involving governments, industry and the public. It strongly endorsed the adoption of a view of quarantine that embraces the whole Australian community (Nairn, 1996:34). The review found a strong undercurrent of dissatisfaction with consultation processes with regard to all aspects of quarantine risk, whilst noting that most concern focussed on the risk analysis process. The Review recommended the establishment of a register of stakeholders that represents the quarantine interests of the Australian community. Biosecurity Australia has subsequently established such a register and inclusion on the register is available to any interested individual or organisation. The Register is used for distributing quarantine policy information, *Biosecurity Australia News* and Policy Memoranda on commodities of interest.

The Review went on to recommend that all registered stakeholders be regularly consulted and kept fully informed of significant developments in quarantine policies and programs. With respect to specific quarantine issues such as individual import risk analyses, detailed consultation should be held with the relevant subset of the registered stakeholders (Nairn, 1996: 46). In order to engender the

partnership approach that the Review recommends, consultation with stakeholders on import risk analyses should be early and broad, with the inclusion of all relevant stakeholders.

The current procedures for consultation for import risk analyses are detailed in Biosecurity Australia's Import Risk Analysis Handbook which is available on the website. Stakeholders may provide input into and comment on (via appeal) the proposed scope and approach of the import risk analysis (IRA), the membership of the IRA team, the technical issues paper, the draft IRA Report and the final IRA Report. Stakeholder input on all stages is sought via email communication to the registered list of stakeholders or via announcements on the website. Stakeholders are allowed from 15 to 60 days to respond depending on the stage of the process. The IRA team may choose to meet with stakeholders to discuss matters raised in their submissions, if considered appropriate, and it may conduct field trips to investigate trading patterns, industry practices and procedures relevant to the assessment of the risk.

Clearly, stakeholders are relevant to the overall biosecurity risk analysis process. They can be the source of relevant information and knowledge for the risk assessment process; their involvement in a timely, transparent manner should ensure that the decisions are more likely to be accepted and supported; and finally their involvement addresses the democratic principle that provides for people to have input into decisions that will affect them. An Eminent Scientists Group reviews the final draft IRA report to ensure that the IRA team has adequately considered all technical submissions received from stakeholders during the formal consultation period on the draft IRA. This group reports to the Director of Quarantine on their findings and recommends any action considered necessary to overcome any identified deficiencies.

It is within this context that we propose a number of specific practical tools for stakeholder analysis and mapping which we believe will be useful to Biosecurity Australia in identifying important stakeholders around a specific issue and developing a strategic consultation and communication approach.

We further recommend these tools for other biosecurity risk management applications, for example for developing communication strategies to specific target groups or for managing specific incursion responses or eradication processes.

## 4. A framework for stakeholder analysis and mapping

Stakeholder analysis has wide acceptance within the business world. Companies systematically scan their social and political horizons to identify those individuals, organisations, groups and issues that are likely to influence their business operations. They develop partnerships with local community groups; they establish community or stakeholder advisory groups; they establish formal and informal consultative processes; they foster active partnerships with their suppliers and with government (Wheeler and Sillanpaa, 1997: 347).

Likewise there has been growing use of stakeholder analysis in other fields over the last 10-20 years, particularly in the development and health policy fields (see Brugha and Varvasovsky, 2000) and increasingly in other areas of the public and not for profit sectors. “It is hard to imagine”, says Bryson, “effectively managing relationships without making use of carefully done stakeholder analyses” (Bryson, 2003).

Grimble and Wellard (1997) in their review of the principles and methods of stakeholder analysis and its application to natural resource management, argue that it has been developed in response to the challenge of multiple interests and objectives where trade-offs need to be negotiated between economic efficiency, environmental objectives and equity. Stakeholder analysis is an approach for gaining an overall “understanding of a system and assessing the impact of changes to that system, by means of identifying the key actors or stakeholders and assessing their respective interests in the system (Grimble and Wellard, 1997: 175).”

### 4.1 Who is a stakeholder?

There has been a great deal written in the stakeholder literature on the definition of who or what is a stakeholder. Freeman identified stakeholders as “any group or individual who can affect or is affected by the achievement of the organisation’s objectives” (Freeman, 1984). Others have suggested that this very broad definition needs to be narrowed in order to be useful to managers. Clarkson proposed stakeholders are those who are voluntary or involuntary risk-bearers (1994). Others have said that stakeholders are characterised by legitimacy, power or urgency (where urgency denotes the importance of the issue to the stakeholder) or a combination of these characteristics (Mitchell, Agle and Wood, 1997).

Eden and Ackermann present a slightly different definition. For them, stakeholders can only be groups or individuals with the power to directly affect the organisation’s future, either by supporting or constraining its purpose (Eden and Ackermann, 1998:117). Those arguing for a more inclusive definition, propose that the interests of the nominally powerless must be taken into account, within a comprehensive stakeholder approach (Bryson, 2003). Others have argued that the stakeholder concept can also encompass the non-human world, proposing that the natural environment is a stakeholder in and of itself, given that the natural environment can affect and is certainly affected by organisational activity (see Staric, 1995).

It may be useful, as some have argued, to make a distinction between:

- *primary and secondary stakeholders* - that is, to distinguish between those individuals or groups without whose continuing participation the organisation could not survive (primary stakeholders) and those who are not engaged directly in transactions with the organisation but have the capacity either to influence or be affected by, the organisation (secondary stakeholders) (Clarkson, 1995);
- between *stakeholders* and *influencers*, whilst acknowledging that some may be both (Donaldson and Preston, 1995);
- between *normative stakeholders*, *derivative stakeholders* and *non-stakeholders*, where
  - *normative* stakeholders are those towards whom the organisation has a moral obligation, or where there is an obligation of stakeholder fairness, over and above that due others simply by virtue of their being human;

- *derivative* stakeholders are those who have the capacity to affect or influence the *normative* stakeholders; and
- *non-stakeholders* are those to whom the organisation has no stakeholder-based obligation, but to whom it may nonetheless have moral obligations (Phillips, 2003); and finally
- between *institutional stakeholders* or organised groups representing a large number of interests with the technical expertise and resources to be effective participants, and *local stakeholders*, generally small groups or individuals with limited resources and organisational capacity to engage effectively in consultative processes and influence decision-making. (See McGlashan and Williams, 2003; see also Dunham et al, 2001 for a discussion of different definitions of ‘community’ within the context of stakeholder theory.)

As we develop our stakeholder analysis, these perspectives are all useful. Here, for the sake of generality, we adopt Bryson’s broader definition of stakeholder as including “**any person, group or organisation that can place a claim on the organisation’s attention, resources or output, or is affected by that output**” (Bryson, 1995: 27). In so doing, we acknowledge that this is a **dynamic** process and that the stakeholders of an organisation will change depending on the specific issue that is being addressed, the relationships between the different stakeholders and the processes of social change (see Cummings and Doh, 2000, Glicken, 2000).

## 4.2 Conducting a stakeholder analysis

Stakeholder analyses and stakeholder mapping can help organisations understand the environment in which they are operating, the key players in that environment and the interactions between them, the issues and values that are important to these players and, most importantly, what opportunities exist to mobilize their support. (see Brugha and Varvasovsky, 2000; Frost, 1994; Svendsen 2006; DSE, 2005; Bryson, 2004)

Stakeholder analyses should be undertaken for a purpose. The articulation of that purpose will help define who should be involved and how. These purposes are likely to include:

- access to knowledge and information,
- understanding values and positions,
- understanding networks of influence, and
- building support for the decision-making process and the decision outcome.

Once the purpose or purposes have been identified, the first step in undertaking a stakeholder analysis and mapping process is to identify those stakeholders to be involved.

### *Step 1 - Identifying stakeholders*

It is critical that all stakeholders who have the potential to affect or may be affected by the policy, strategy or project are identified. In order to do this, it is possibly useful in the first instance to define the scope and type of stakeholders to be targeted.

- Is the scope local, national or international?
- What types of stakeholders should be included?
  - those focussed on policy,
  - those with a commercial interest in the issue,
  - those with a public good interest?
- What types of information might be relevant – technical, environmental?

Various processes are proposed in the literature for identifying stakeholders. We propose a two-step process that includes both internal list-building using a *brainstorming* process and *snowballing* based on external consultation.

An individual or a small planning group should initiate the process by *brainstorming* to create an initial list of people or organisations they think will be important to the effective implementation of the project, policy or strategy. The following questions are useful in building this first list.

- Who will be affected?
- Who has the power to influence the outcome?
- Who are the potential allies and opponents?
- What coalitions might build around this issue?

Other questions, adapted from the World Bank Source Book for Participatory Planning and Decision-making, that may be useful include:

- Are there people whose voices or interests in the issue may not be heard?
- Who will be responsible for managing the outcome?
- Who can facilitate or impede the outcome through their participation, non-participation or opposition?
- Who can contribute financial or technical resources? (World Bank, 1996)

The resulting stakeholder list (see **Table 4.1** - Stakeholder Identification Template) is then used as the basis for a *snowballing* exercise whereby the project proponent contacts those on the initial list, explains the project's purpose and asks them to identify others whom they think may have an interest. Where a stakeholder already on the list is mentioned, that should be noted on the corresponding box on the grid for that stakeholder. This will provide a basis for understanding the relative importance of the identified stakeholders in the eyes of other stakeholders. It will also help in understanding relations between stakeholders. Where a new stakeholder is mentioned, this name is added to the list.

This process may tend towards an over-representation of certain 'coalitions of interest'. One way of balancing this is for the project proponent to prompt the interviewee, by suggesting a category of stakeholder or a specific organisation or individual. A different marker should be used for these 'prompted' nominees. The *snowballing* process should be continued until it is no longer rendering new names.

At this stage, it is useful to get together the initial planning group and categorise the stakeholder list by broad categories (e.g. government/government agencies, industry groups, NGOs, consumer groups, research institutes, etc). This process may identify new stakeholders and stakeholder categories that have no representation.

Within the business sector there are many standard stakeholder maps available that a company can use as a template to ensure that it has not neglected any key stakeholder groups (see **Figure 4.1**, also Wheeler and Sillanpaa, The Future 500, [www.future500.org](http://www.future500.org)).

**Table 4.1** Stakeholder Identification Template

	Nominees (stakeholder a)	Nominees (stakeholder b)	Nominees (stakeholder c)	Nominees (stakeholder d)	Nominees (stakeholder e)	Nominees (stakeholder f)
Initial stakeholder list						
a				•	•	
b			•		•	•
c	•			•	•	•
d	•					*
e	•		•			
f	•		•	•	•	

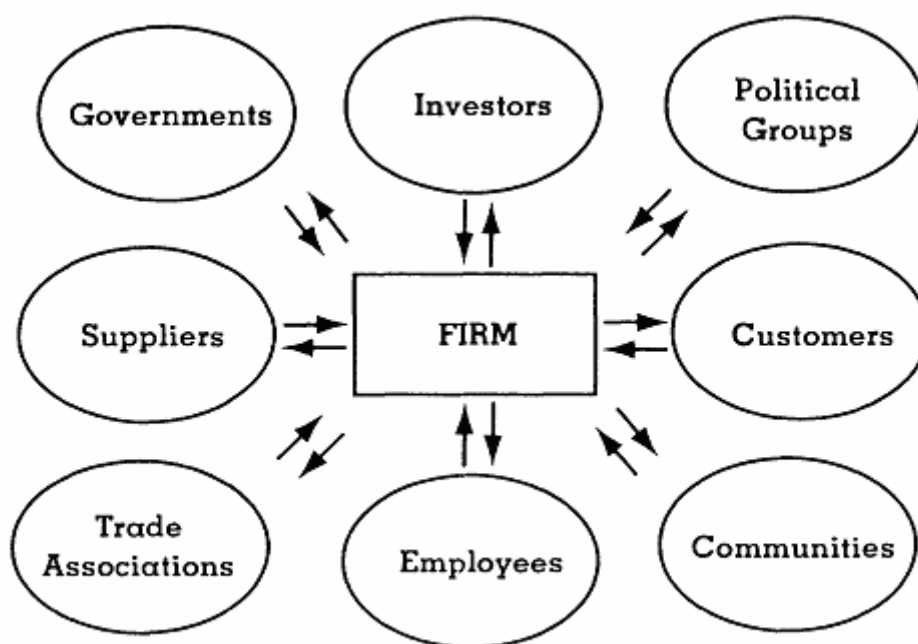
Additional stakeholders						
g	●		●	●	*	*
h	*	●		*		
i	*		*		●	
j				*		

● = suggested by the interviewee

\* = suggested by the interviewee after prompting

Snowballing process:

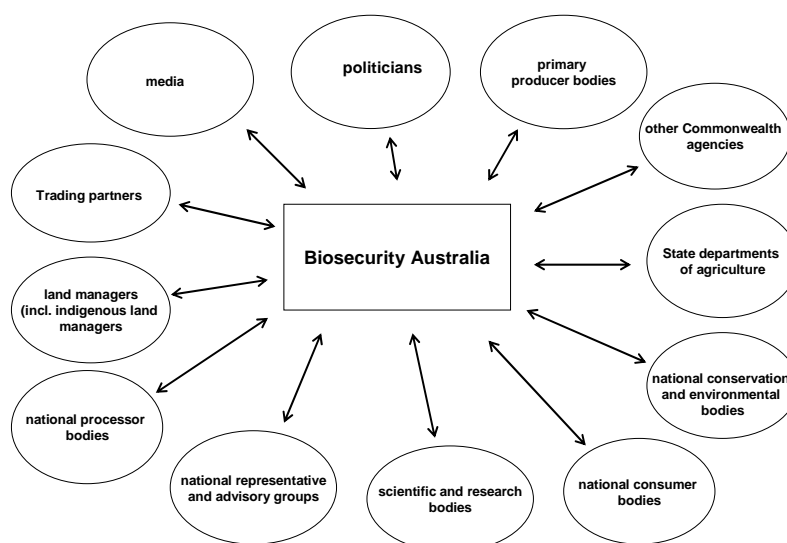
The initially identified stakeholders are listed down the left-hand column as well as across the top. As each is contacted and asked to suggest others who might be involved, these are recorded (either a validation of the initially identified list or as a new stakeholder). This process is continued until no additional stakeholders are identified.



**Figure 4.1** The stakeholder model of the corporation, from Donaldson and Preston (1995)

Using this as a model, we constructed a map of stakeholders around biosecurity issues (see **Figure 4.2**) based on the list of stakeholder categories identified in the Nairn report (1996) and adding others whom we thought were relevant. It represents the simplest form of stakeholder map and provides no analytic framework for that network. It does however, indicate the extent of the stakeholder ‘universe’ that exists around this issue.





**Figure 4.2** A stakeholder model for Biosecurity Australia

### *Step 2 - Analyzing the stakeholders*

A preliminary analysis of the stakeholders can then be done as a ‘back room’ exercise by the project team, using the following questions:

- How powerful or influential is each stakeholder in respect of this issue? Power may derive from their ability to provide or withhold resources, their ability to influence decision-makers or public opinion, their access to information or their role as key players in the issue. It may also be latent, in that the stakeholder may have the capacity for influence or power but may choose not to use it.
- What is their interest in the issue – that is, what is the basis of their interest (economic, political, public good, scientific or technical) and how significant is it to them?
- What is their position or attitude vis-à-vis the issue, policy or project?
- What are the criteria they will use to assess this issue, policy or project?
- Do they have relationships or links with other stakeholders in this issue and if so, are those relationships, positive or negative, strong or weak and are they unilateral or bilateral?

Ideally, this preliminary analysis would then be complemented by some form of external consultation – either through a survey questionnaire, interviews or group consultation.

On the basis of this information, a stakeholder analysis framework can now be built (see **Table 4.2**). This framework becomes a critical planning document which needs to be reviewed and updated on a regular basis as the project progresses.

**Table 4.2** Stakeholder Analysis Framework

Stakeholder group	Power (ability to influence outcome) - high - medium - low	Interest (public good, legal, financial, scientific) - high - medium - low	Attitude - for - indifferent - against	Relationships - which organisations - unilateral/bilateral - strong/weak	Capacity to contribute - problem definition - source of knowledge - peer review	How to involve - keep informed - consult - participate in decision process

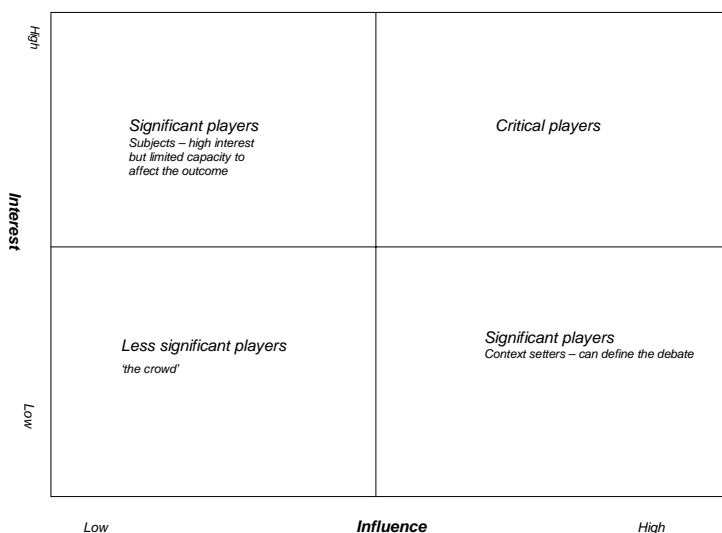
Note: The two right-hand columns should only be filled in after the other stages of the stakeholder analysis and mapping have been completed. They then become your stakeholder management/participation strategy and checklist.

**Step 3 - Mapping stakeholders**

Once the analysis has been completed it becomes possible to develop various stakeholder maps.

*Mapping stakeholder influence and interest*

Influence (or power) and interest maps are probably the most frequently used tool in stakeholder mapping (see **Figure 4.3**). The *influence* axis represents the stakeholder’s capacity to influence the



**Figure 4.3** Influence vs interest map Adapted from Eden and Ackermann, 1998: 122

issue, organisation or project. As explained, influence may be based on their ability to provide or withhold resources, to exert influence on others, their access to information or their role as a key player in the issue. The *interest* axis measures the significance of the issue or project to the stakeholder. Interest can be political, financial, social or cultural and is likely to be a combination of these. It may also be scientific or technical, to the extent that they are ‘experts’ in the area.

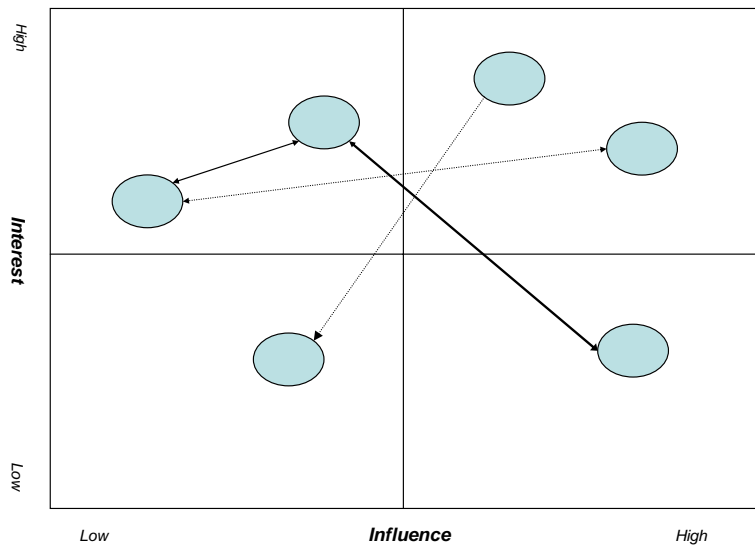
Stakeholders are placed on this grid relative to each other. Those stakeholders that fall into the top right hand quadrant of this grid – that is those with medium to high interest and medium to high influence - are clearly critical to the success of the project. Those stakeholders with high interest and low influence are also very important to the project as, through alliances, they may be able to exercise much greater influence. Likewise those with high influence but low interest may be recruited to the cause by those with higher interest in the issue, thereby forming more influential coalitions of interest.

Eden and Ackermann (1998) call those in the top right hand quadrant *players* – that is they have both the ability to influence the outcome and the interest to do so. Those in the right hand bottom quadrant are *leaders* or *context setters* – they are potential actors in the issue and the position they take on it could be critical to the outcome. Those in the top left-hand quadrant are *subjects* – they have a stake or interest in the issue but have limited capacity to influence the outcome. As Eden and Ackermann also point out, these stakeholders may in fact have unrealised power, which, through alliances with others, may be activated either in support or opposition to the project. They describe a case where a ‘subject’ stakeholder was empowered by the agency to become an active advocate for the agency’s new strategic direction (see Huxham, ed.1996). Finally those in the bottom left-hand quadrant are the *crowd*. They are bystanders to the issue and have little or no capacity to influence the outcome.

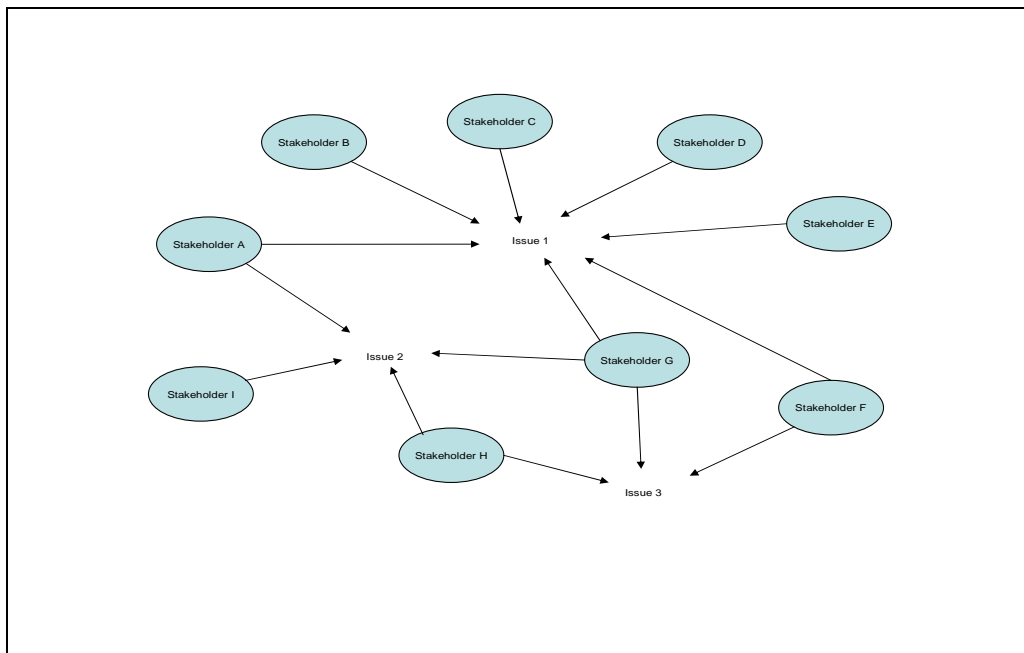
Understanding where people sit on this grid is critical to the development of stakeholder management strategies, both in terms of delivering organisational objectives and ensuring appropriate processes for stakeholder participation. It is important to remember that stakeholder positions on this map may change over time, through new alliances, change in personnel or new directions. Stakeholder analysis is necessarily an iterative process.

#### *Mapping stakeholder relationships and patterns of influence*

Starting with the influence/interest grid (**Figure 4.3**), it is now possible to develop a picture of the patterns of influence (**Figure 4.4**) that occur amongst the stakeholders. This will help identify those stakeholders that may not have significant power or influence themselves, but through their connections and links with other stakeholders may be able to exercise influence greater than their own. It can also provide insights into the coalitions that are likely to form around the issue. The relationships between the various stakeholders are depicted by arrows connecting them. These may be one-way or two-way influences. The relative significance of these relationships can be shown by the relative weight of the connecting arrows.



**Figure 4.4** Stakeholder relationships and patterns of influence (adapted from Eden and Ackermann, 1998: 349-350)



**Figure 4.5** Stakeholder-issue relationship map (adapted from Bryson, 2004: 346)

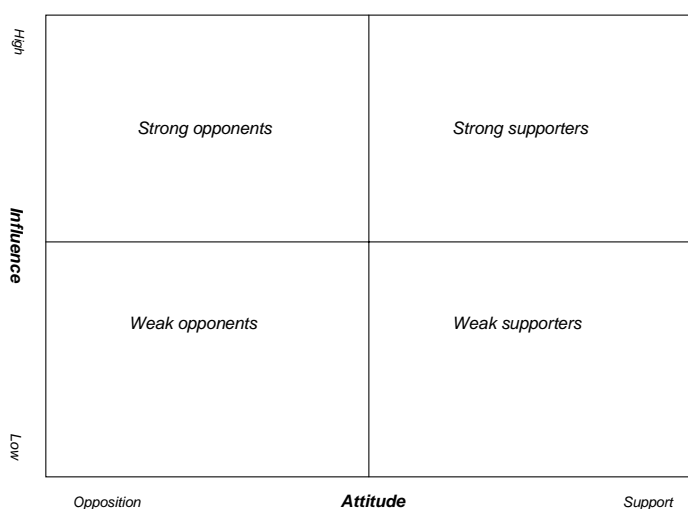
*Mapping stakeholder-issue relationships*

Bryson (2004, drawing on Bryant, 2003) suggests mapping those issues or aspects of a project which are of most interest to stakeholders (see **Figure 4.5**). This is a useful tool for understanding where there is shared interest and effectively underpins the stakeholder influence diagram. It is important to remember, however, that a shared interest in an issue may not necessarily mean a shared position or attitude with respect to that issue. This map will help, however, clarify the range of issues or aspects of the policy or project that need to be considered if stakeholder expectations are to be addressed. It also provides insights into the sorts of issues that need to be raised in developing a communication strategy with specific stakeholders.

*Framing the problem*

A problem-frame map identifies the position or attitude of the stakeholders vis-à-vis the project, policy or issue at hand (see **Figure 4.6**). This is particularly useful in identifying potential coalitions that could develop around support for or opposition to the project or issue. In developing this map, the planning group needs to take into account the different perspectives from which a specific project or issue might be viewed.

For example, a primary producer may have concerns about disease risk from imported products, but may equally be concerned about access to international markets for local primary production. That is, some stakeholders may in fact have internally conflicting positions on the issue. In order to depict these various positions, it may be necessary to produce more than one problem-frame map, drawing on the stakeholder-issues interrelationship map previously completed.



**Figure 4.6** Problem-frame stakeholder map

In calling this the ‘problem-frame’ map, Bryson suggests that it is useful in developing ‘problem definitions’ likely to lead to a winning coalition. By redefining the problem, he suggests, it may be possible to identify areas of shared agreement and so therefore build coalitions of support. For example, if an issue is defined in terms of the public good, it may be easier to build support because stakeholders will be encouraged to think beyond their own specific interests to consider broader societal value. In this map, as in others, particular attention needs to be given to those stakeholders who show up in the right-hand quadrants. It is worth considering what options are available to the

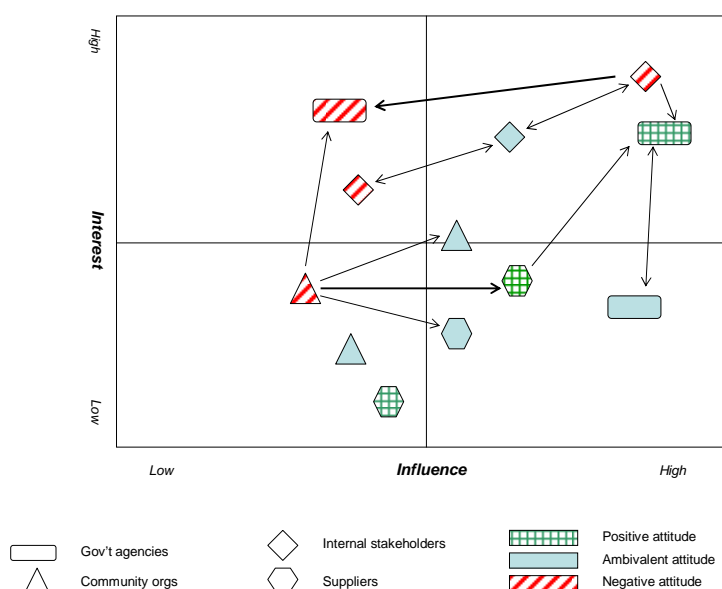
organisation to increase the number of powerful supporters and to reduce the number of powerful opponents.

Nutt (2002) suggests that a focus group bringing together both supportive and oppositional stakeholders can be useful in highlighting key concerns and considerations and in helping to screen out misunderstandings. It can also help identify coalitions of interest and arenas of action.

Eden and Ackermann (1998) suggest using 'role-think' to explore in more detail the positions of key stakeholders. The purpose of this exercise is to get the management or project team thinking about the key issues that are going to be important to stakeholders, how stakeholders are likely to react to them, are there some aspects of the issue they are likely to be in agreement with and some more likely to engender opposition, what are the resources available to them either to support or oppose the proposed action(s), are they likely to involve others and if so whom?

Like the previous influence vs interest map, this map can also be used as the basis on which the stakeholder relationships can be drawn. This will be particularly useful for managing a controversial issue and developing communication strategies.

Eden and Ackermann (1998) suggest a different approach to mapping stakeholder attitudes. They propose starting with the interest/influence map and then identifying the different attitudes of the stakeholders by using different coloured labels (see **Figure 4.7**). Those stakeholders who are likely to be hostile to the project are coloured red, those who are potentially positive or collaborative are coloured green and those whose attitude is likely to be more ambivalent are coloured blue. They go further to suggest that the category of stakeholder can also be represented on this map using different symbols. If the patterns of influence are also drawn, the resulting map presents a comprehensive analysis of the strategic positioning of the organization in relation to its stakeholders around the specific issue or project.



**Figure 4.7** Integrated stakeholder analysis map

Through these various mapping processes, the project team has now:

- 1) identified those stakeholders relevant to the project
- 2) mapped their relative influence and interest in the project
- 3) identified the patterns of influence that connect them,

- 4) identified their shared interest in specific issues or aspects of the project, and
- 5) identified those who are in favour of the project and those who oppose it

The stakeholder analysis as represented through these maps is a critical part of an internal planning process around a specific project or policy and will guide the development of effective stakeholder involvement processes.

As this process has evolved, it will have become clear that stakeholders form a network of influence around the issue or project. Their relationships are not just bilateral (or dyadic) relationships with the responsible organisation. They have connections and interactions that they will use to advance their ends. The capacity for the organisation to achieve its goals will depend on the extent to which it can work with this network of interest and influence to negotiate outcomes that address their key concerns, even if they do not necessarily meet their desired objectives. (See Rowley, 1997, Howden, 2006 and Svendsen and Laberge, 2005, 2006 for further discussion of stakeholder network theory.)

#### ***Step 4 – Using the stakeholder maps to advance organisational or project objectives***

The insights gained during the mapping process can now be used to advance the organisational or project objectives. Specifically, they are extremely useful in identifying the role of stakeholders in the achievement of the organisation's objectives and the options available to the organisation, through the implementation of appropriate participation and communication processes, to align the stakeholders to its desired outcomes or to revise its strategies in order to integrate stakeholder concerns. Key to any stakeholder strategy is the recognition that the process may lead to change and how that change is negotiated will build capacity for engagement on all sides.

We can now return to our initial stakeholder analysis framework and complete the last two columns (see **Table 4.3**). This document now supports the overall planning framework and becomes a checklist for the project. It allows planners to identify different ways of engaging with stakeholders over the course of the project. It can help the planning team build productive relationships with stakeholders so that their expectations are met, their expertise is acknowledged and the interaction is focussed and pertinent to their interests in the issue.

**Table 4.3** Stakeholder Analysis Framework (hypothetically partially completed)

<b>Stakeholder group</b>	<b>Influence</b> (ability to influence outcome) - high - medium - low	<b>Interest</b> (public good, legal, financial, scientific) - high - medium - low	<b>Attitude</b>  - for - indifferent - against	<b>Relationships</b>  - which organisations - unilateral/bilateral - strong-weak	<b>Capacity to contribute</b>  - problem definition - source of knowledge - peer review	<b>How to involve</b>  - keep informed - consult - collaborate - participate in decision process
<b>Stakeholder A</b>	medium	High (public good)	against	Strong bilateral rels with C & F	problem definition, source of knowledge	consult
<b>Stakeholder B</b>	medium	Low (scientific, technical)	for	no relationships	peer review	Participate in decision process
<b>Stakeholder C</b>						
<b>Stakeholder D</b>						
<b>Stakeholder E</b>						
<b>Stakeholder F</b>						
<b>Stakeholder G</b>						

More detailed frameworks for stakeholder participation than we have used in the above matrix are presented in the literature, generally modelled on the International Association for Public

Participation's spectrum of public participation (see **Table 4.4**; also Arnstein 1969 and The World Bank, 1996). The different stages of participation may or may not be relevant in any particular project and it is up to the project proponents to determine the levels of involvement that are appropriate and at what stage of the project. In determining the appropriate level of involvement, managers should consider the desired outcome of the involvement – to elicit information, to build trust, to build shared knowledge and understanding, to negotiate acceptable outcomes and/or to facilitate policy/project implementation.

**Table 4.4** Spectrum of public participation

<b>INFORM</b>	<b>CONSULT</b>	<b>INVOLVE</b>	<b>COLLABORATE</b>	<b>EMPOWER</b>
<p><b>Goal</b> To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions.</p>	<p><b>Goal</b> To obtain public feedback on analysis, alternatives and/or decisions.</p>	<p><b>Goal</b> To work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered.</p>	<p><b>Goal</b> To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.</p>	<p><b>Goal</b> To place final decision-making in the hands of the public.</p>
<p><b>Promise to the Public</b> We will keep you informed.</p>	<p><b>Promise to the Public</b> We will keep you informed, listen to and acknowledge your concerns and provide feedback on how public input influenced the decision.</p>	<p><b>Promise to the Public</b> We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.</p>	<p><b>Promise to the Public</b> We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the extent possible.</p>	<p><b>Promise to the Public</b> We will implement what you decide.</p>
<p><b>Example Tools</b></p> <ul style="list-style-type: none"> <li>◆ Fact sheets</li> <li>◆ Web sites</li> <li>◆ Open houses</li> </ul>	<p><b>Example Tools</b></p> <ul style="list-style-type: none"> <li>◆ Public comment</li> <li>◆ Focus groups</li> <li>◆ Surveys</li> <li>◆ Public meetings</li> </ul>	<p><b>Example Tools</b></p> <ul style="list-style-type: none"> <li>◆ Workshops</li> <li>◆ Deliberative polling</li> </ul>	<p><b>Example Tools</b></p> <ul style="list-style-type: none"> <li>◆ Citizen Advisory Committees</li> <li>◆ Consensus-building</li> <li>◆ Participatory decision-making</li> </ul>	<p><b>Example Tools</b></p> <ul style="list-style-type: none"> <li>◆ Citizen Juries</li> <li>◆ Ballots</li> <li>◆ Delegated decisions</li> </ul>

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## 5. Analysing and mapping stakeholders: examples from the literature

The following examples from the literature provide insights into the application of stakeholder analysis and mapping and their value in helping organisations achieve their objectives.

### 5.1 Understanding stakeholder needs to clarify organisational purpose

Bryson (2004) refers to an example from the Division of Fisheries and Wildlife of a state Department of Natural Resources in the United States. The Division was experiencing increased hostility from two of its key stakeholders – hunters and anglers. As the first step of a strategic planning process to address an increasingly untenable situation, the division undertook a stakeholder analysis and mapping exercise. This exercise revealed that the professionals in the division believed that their prime stakeholders were in fact fish and deer, and that their primary purpose was to regulate fishers and anglers to protect the state's resources over the long term. What they learned from the stakeholder analysis process was that while the fishers and anglers (and indeed other stakeholders such as resort owners) saw this as an important performance measurement criterion, there were other criteria which were equally important. Their dissatisfaction with the outcomes for these criteria led them to active lobbying against the division. The analysis allowed the division to identify strategies for the management of the fish and wildlife resources for the long term, whilst at the same time meeting other needs of these key stakeholders without alienating the environmentally focussed stakeholders (see Bryson, 2004: 107-8).

### 5.2 Aligning corporate and stakeholder interests

Svendsen and Laberge (2006) document the process for companies to move from a stakeholder management mindset to a stakeholder network mindset. A stakeholder management mindset is based on a paradigm which sees the organisation as operating within a closed system independent of the external context. Stakeholders are seen only in terms of their relationship with the organisation and the relationship with them is characterized by one-way communication, bilateral consultation and transactional partnerships or negotiation.

A stakeholder network (or co-creative) mindset, on the other hand, is not organisation-centric. It focuses on issues, problems and opportunities that go far beyond one organisation, having regard for the whole system not just its parts. Such an approach can be helpful in catalysing solutions where diametrically opposed views among a subset of stakeholders stifle progress.

Svendsen and Laberge present an example of how they had worked with a major Canadian forest company, using stakeholder mapping, to move beyond ongoing confrontation between it and the local community and environmental groups, through the involvement of other key stakeholders, including particularly First Nations leaders. This resulted in the establishment of a new commercial joint venture sustainable logging company owned jointly by the first nation community (51%) and the company (49%). This decision had followed the intervention of the First Nations leaders who had convened meetings between the company managers and environmental group leaders, together with loggers and community representatives. The company then went on to launch 'Forest Project', to develop an economically feasible plan to end clear-cutting.

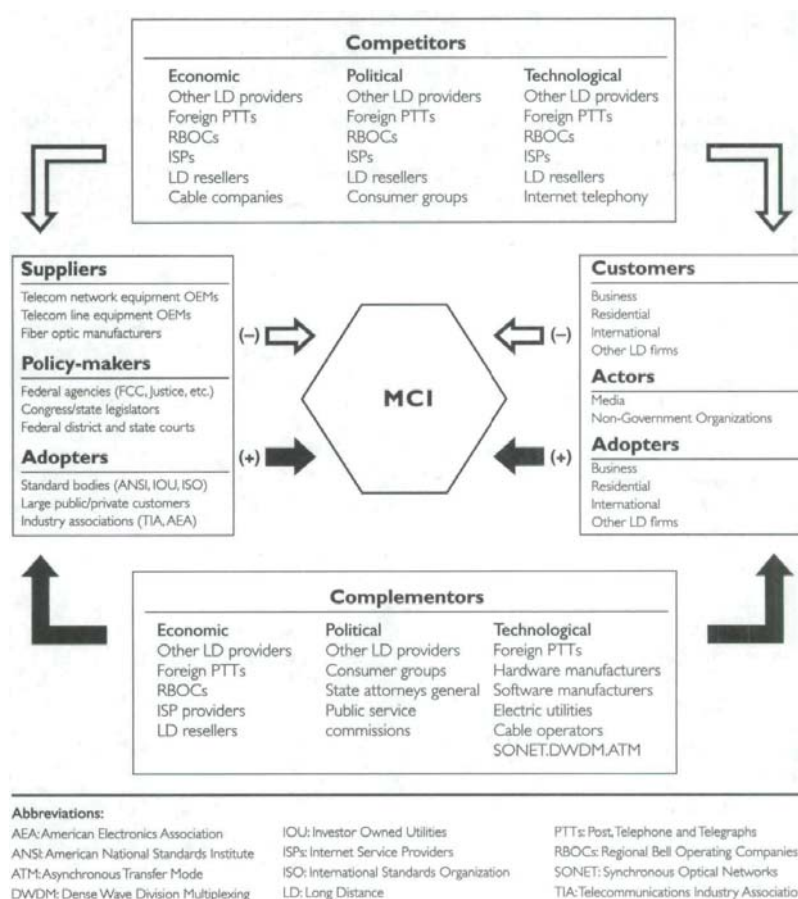
"Looking back now, it is clear to those of us who participated in the Forest Project, that it was essentially an exercise in adaptive management and organisational learning. (...) At some point we all began to put more time and energy into achieving a shared goal. It wasn't really a product of consensus or compromise. Instead it was an outcome of continual interaction and constant redefinition of the situation and the options for dealing with it" (Coady, 1999).

As the conflict moved to other locations, a similar multi-stakeholder group was created to act as a catalyst for change in the region.

As long as the issue was defined as a battle between the forestry company and the environment groups, there was no meeting ground. By involving other key players, first nation communities, scientists, local community, loggers, they were able to create a solution that integrated social, economic, environmental and spiritual considerations. The stakeholders were able to stop thinking from a predetermined point of view, as the representative of a specific organisation, and start thinking as members of a system or network.

### 5.3 Understanding the role of stakeholders in value creation

This example comes from the business literature and shows how stakeholder mapping helped a company identify the different stakeholders relevant to its business by addressing three distinct areas of value-creation and four key groups of players. The three distinct areas of value-creation were economic, political and technological and the four groups of players were competitors and ‘complementors’ on one axis and suppliers and customers on the other axis (with their equivalents in the political and technological arenas, viz policy-makers and key opinion makers and technology input adopters and technology end-use adopters). The key learning from this mapping process is that competitors can negatively affect both the input organisations (suppliers, policy makers, technology adopters) as well as the output organisations (customers, media and NGOs and technology adopters). ‘Complementors’, on the other hand, can affect both input and output groups positively. That is, it is the interaction of the competitors and ‘complementors’ on the company’s primary stakeholders that will be critical to the company’s success.



**Figure 5.1** Mapping across the three dimensions of MCI’s value system, from Cummings and Doh (2000: 19)

The case study presented is of MCI Corporation, a Washington-based telecommunications company that successfully partnered with consumer groups and other non-market stakeholders in order to press the view in 1982 that market conditions no longer justified the preservation of AT&T’s monopoly. Its

subsequent marketing strategy and technology investment meant that through the 80s and 90s it steadily gained market share. It then began developing relationships and alliances that would strengthen its international position, working with ‘complementors’ in the public, private and technological environments. MCI introduced innovative technology and marketing programs that have been adopted by other players in the industry, helping it respond to competition within a changing domestic regulatory environment.

“Throughout its history, MCI has assumed multiple roles that provide the basis for mapping its own strategic environment, identifying each of its principal stakeholders, and developing both competitive and cooperative strategies in response to its circumstances. (...) As other firms begin to develop comprehensive maps of their own multi-context landscapes, it remains to be seen whether MCI can continue its strategic leadership over the industry” (Cummings & Doh, 2000; 102).

#### **5.4 Stakeholders and social learning in catchment management**

Social Learning for the Integrated Management and Sustainable Use of Water at Catchment Scale (SLIM) is a multi-country research project funded by the European Commission. Its main theme is the investigation of the socio-economic aspects of the sustainable use of water. A key focus lies in understanding the application of social learning as a conceptual framework, an operational principle, a policy instrument and a process of systemic change. In 2004, SLIM produced a policy briefing that drew on research results from fourteen case studies to examine the relevance of the concepts of ‘stakeholder’ and ‘stakeholding’ to integrated catchment management and the sustainable use of water. It found that stakeholder analysis is a useful exercise to:

- reveal the different interests and drivers affecting the behaviours of the different stakeholders;
- stimulate understanding among stakeholders;
- make more precise the selection of those who might be invited to participate in proposed actions;
- indicate potential conflicts of interest or power that might require negotiation, mediation or conflict resolution;
- stimulate creative thinking about the kinds of ‘learning events’, ‘learning systems’ and ‘participatory actions’ that will help stakeholders to contribute constructively;
- stimulate creative thinking about scenarios of possible and/or desirable futures; and
- provide opportunities for those engaged in the stakeholder analysis to learn about the nature of their own stakes and interests, as well as those of other stakeholders (SLIM, 2004)

Examples from the 14 case studies showed how previously unrecognised stakeholders had emerged through the stakeholder analysis and involvement process, how as new understandings had arisen, the power and expertise of previously dominant stakeholders had been challenged, how joint fact-finding had resulted in collaborative networks, and how different understandings of issues had emerged.

The paper concluded by recommending that stakeholder analysis be included in public decision-making and policy processes and that, to be useful, it needs to be conducted in the early stages of the process and updated throughout as learning progresses. It further recommended that a participatory approach to stakeholder analysis is preferable, but that it can still be useful if applied in a ‘technocratic’ non-participatory way. However, the paper does warn that this may lock the management agency into a process that excludes those who may subsequently turn out to hold the key to effective catchment management (SLIM, 2004).

## 6. Example and discussion

### Mapping Biosecurity Australia's stakeholders with respect to the Appropriate Levels of Protection (ALOP) Framework.

The Australian Centre of Excellence in Risk Analysis (ACERA) was asked to undertake a review and assessment of the Appropriate Levels of Protection (ALOP) framework with specific reference to risk as it is affected by volume of trade and time. As part of this project, it was agreed that a stakeholder workshop be held on 22 November 2006 to identify the primary concerns of stakeholders regarding how time and volume are treated in Import Risk Analyses (IRAs). The Director of the Centre proposed that this workshop be used as a case study for the application of the methodologies being developed through the present study. The following describes the procedures used for stakeholder identification and analysis arising out of this case study.

#### *Step One – Identifying stakeholders.*

An initial list of 20 stakeholders was proposed by Biosecurity Australia. This included 7 industry organisations, two industry/government committees, 2 farmer organisations, 7 government agencies (Federal and State) and two research institutes. This list was expanded through the use of the snowballing process described above. A further 18 organisations (industry groups and farmer organisations) were added to the list through this process of stakeholder nomination. ACERA then identified a further 25 organisations whom it believed would have an interest in the ALOP framework, based on experience in this field and further research. These included an additional industry organisation, three additional Federal Government Departments, six additional research institutes, a professional association, land management agencies, environmental NGOs, consumer groups, indigenous organisations, and animal welfare organisations (See **Table 6.1**).

The complete list consisted of 56 specific organisations, plus a number of additional categories of organisation/individual that had been identified - politicians, trading partners, the media, hobby farmers, State park agencies, private conservation reserve managers and land councils

As the list was developed, additional invitations were sent out within the constraints of the workshop requirements – firstly, to have no more than approximately 20 people (in order to achieve the desired outcome of providing an opportunity for shared dialogue) and secondly, to ensure representation from those categories of stakeholder identified as key by Biosecurity Australia, specifically primary producer groups, farmer associations, State agriculture departments, other federal government agencies and other divisions within DAFF. A further consideration was the trade interest of the stakeholder (import, export or both). 30 invitations were issued, with 21 people accepting the invitation. Actual attendees on the day were 18, plus five people from ACERA and the Chair of ACERA's Scientific Advisory Committee. The breakdown of attendees was as follows:

Primary producer groups	3 representatives
Farmer associations	4 representatives
DAFF (including BA)	2 representatives
State departments	3 representatives
National advisory groups	1 representative
Other Fed gov't dep'ts	2 representatives
Research institutes	2 representatives
Gov't /Industry Committees	1 representative
ACERA	6 representatives

**Table 6.1 ALOP Workshop - Stakeholder Identification**

Stakeholder group	Invited to workshop	Attended workshop	Stakeholder group	Invited to workshop	Attended workshop
<b>Initial list</b>			<b>Other potential stakeholders identified by ACERA</b>		
Australian Pork Ltd	*		Organic Wholefoods and Biological Farmers of Australia		
Apple and Pear Australia Ltd	*		Dep't Environment & Heritage		
Australian Banana Growers Council	*	*	Rural Industries Research and Dev't Council		
Meat and Livestock Australia	*		DFAT	*	*
Dairy Australia	*	*	Animal Biosecurity CRC for Emergent Infectious Diseases		
Grains Council of Australia	*	*	Plant Biosecurity CRC		
Horticulture Australia Ltd	*		Weeds CRC		
Plant Health Australia	*	*	Spatial Information CRC		
Animal Health Australia	*		Cth Env't Research Facility for Applied Decision Analysis		
National Farmers Federation	*	*	Uni of Melbourne - Mathematics	*	*
NSW Farmers Federation	*	**	Australian Veterinary Association		
DAFF – ABARE	*		Parks Australia		
DAFF – OCVO	*	*	Landcare Australia		
DAFF – PIAPH	*		WWF		
WA Dept of Agric. and Food	*	*	ACF		
Qld Dep't Primary Industry and Fisheries	*	*	Australian Retail Association		
Victorian Dep't of Primary Industries	*	*	Aust'n Consumer Association		
Attorney General's Dept	*	*	Animals Australia		
CSIRO Mathematical and Information Sciences	*		RSPCA		
CSIRO Entomology	*	*			
<b>Additional nominees</b>			<b>Other groups/categories</b>		
Australian Dairy Farmers Federation	*		Land Councils		
Agforce Qld	*		Indigenous Protected Areas		
Northern Territory Cattlemen's Assoc'n			State park agencies		
Aust'n Cane Growers Council			Private conservation reserve managers		
Cotton Australia			Ministers/politicians		
Ausveg			Trading partners		
Australian Citrus Growers			Media		
Livecorp			Hobby farmers		
Aust'n Meat Industry Council					
National Association of Forest Industries					
Tasmanian Salmon Growers Association					
Aust'n Egg Corporation Ltd					
Growcom					
Victorian Farmers Federation	*	*			
SA Farmers Federation					
WA Farmers Federation					
Queensland Farmers Federation					
Tasmanian Farmers Federation					

### **Step Two - Analysing the stakeholders**

We decided to use the occasion of the workshop to distribute a survey to the stakeholders as the basis for providing further data for the stakeholder analysis. The survey was very brief and provided only limited insight. Ideally a more rigorous approach to this analysis would take place, either through a more detailed survey or one-on-one interviews.

The workshop was facilitated by Professor Mark Burgman, the Director of ACERA. The workshop agenda included a presentation by a representative from Biosecurity Australia on volume of trade with respect to ALOP; a presentation by Mark Burgman on the work of ACERA and a presentation by a lawyer representing NSW Farmers Association on issues raised by consideration of volume of trade and the application of the ALOP framework. This latter presentation raised a number of concerns about the current Import Risk Analysis (IRA) process, which is based on an assessment of annual likelihood of entry, establishment and spread. Other organisations had declined the invitation to make a presentation.

Each presentation was followed by discussion. Some of the issues raised in discussion included whether or not human factors are taken into consideration in terms of consequences; how do you factor in establishment risk from a biological perspective; whether there is an analysis or process that looks at the performance of previous IRAs and whether there are failures that can be attributed to the IRA and ALOP process; the need to balance protection of agriculture with access to international trade; the fact that a language-based scale could be better than the apparent precision of a quantitative scale.

The workshop resulted in the formation of a 'project steering committee' to provide feedback on progress reports and draft documents. ACERA sought feedback on the scope of the project following the workshop, and has recently (March 2007) circulated the draft review for comment.

At the end of the workshop, participants were invited to complete the brief 2-page survey to be used for the purposes of stakeholder analysis and mapping. Respondents were given the option of identifying themselves or not. (See Appendix One for the survey.)

Ten surveys were completed. Of these two were only partially completed. Four respondents chose to identify themselves.

Whilst this represents a very small sample and clearly no inferences can be drawn from this sample about Biosecurity Australia's broader stakeholder network, it illustrates the basis for developing stakeholder maps, which identify stakeholder positions, influences and networks and for sketching out a stakeholder engagement strategy around the issue.

The key findings of the survey are as follows:

#### Contact with ALOP

As would be expected, the reasons for contact with ALOP were varied, and included industry response to an IRA (2), expert response to IRA (1), advice to an industry association re quarantine policy (1), responses to national IRAs and involvement in State IRAs (1), through an advisory committee (1), responding to impact of IRAs on export markets (1), expert comment re economic impact (1), research for a farmers' group for lobbying purposes (1) and as a professional adviser (1). One person also identified past involvement in IRA preparation.

#### Interest in ALOP

The respondents identified a range of reasons for their interest in ALOP with most respondents identifying more than one reason. Only four respondents identified only one reason and these were :

- *Scientific/technical* (2)
- *Political* (1)
- *Trade and access to international markets* (1)

Two respondents included all the reasons listed, with one of these adding another – legal.

The accumulated responses to this question are as follows:

- *Scientific/technical* (7)
- *Trade/access to international markets* (6)

- *Political* (5)
- *Financial/economic* (4)
- *Public health/public good/societal* (4)
- *Other* (3)
  - legal,
  - risk management,
  - application to regional (State) situations, specifically the protection of State agriculture

From the above responses, it is interesting to note that nearly all the respondents identified themselves as having a *scientific or technical* interest in ALOP. In extending the invitation, ACERA had specifically asked organisations to send a representative with technical or scientific expertise and this is reflected in the response to this question. One of these seven respondents identified themselves in response to a subsequent question, as having no influence over the ALOP framework and its application to biosecurity risk assessments (see below). This could indicate the potential for some stakeholders to feel frustrated, believing that they have the capacity to make a contribution to the process of scientific and technical analysis, but are not given the opportunity to do so.

Also of interest is that *trade and access to export markets* were identified by six stakeholders as of interest to them. That is, these stakeholders had a perspective on the ALOP framework and its application to biosecurity issues that encompassed the overall trade environment, not just the protection of local markets. One industry respondent highlighted this issue as critical and another respondent identified it as its sole interest. Amongst these stakeholders, the ALOP policy was clearly seen within the broad framework of Australia's international trading position.

Another point of interest to emerge from the responses to this question is that only four respondents identified *public health/public good* as the basis for their interest in ALOP. This may reflect the selection of stakeholders that were present at the workshop. Had there been representatives of consumer groups, environmental organisations, land managers, and indeed politicians, this issue may well have ranked higher. Public health and public good are clearly significant aspects of biosecurity protection and stakeholders representing these interests have a potentially significant contribution to make. This demonstrates how the selection of stakeholders to be involved in a stakeholder process can result in narrowing what Bryson calls the 'problem-frame' (Bryson, 2004).

Only four respondents identified their interest in the ALOP framework as being *financial or economic*. Had there been more industry and primary producer groups represented at the workshop (and more had been invited, but did not attend) this may have been given a higher ranking. For the stakeholders present, there were other issues of equal or more importance

Finally these results confirm that the ALOP framework is indeed a *political* issue with a number of stakeholders (five) identifying their interest in it as being political. With one exception, the respondents who identified their interest as being *political* also identified other issues that are of interest to them. This means that for these stakeholders, there are a number of avenues for dialogue and debate before the issue becomes politicised. Identifying these avenues for debate and dialogue and methods for engagement are two of the important outcomes of stakeholder analysis. Only one respondent identified their interest as being solely *political*, adding an additional comment that their organisation is essentially a lobbying organisation. Identifying other issues of mutual interest would be a key objective in developing an engagement strategy with this stakeholder.

#### Attitude to ALOP

With one exception, all respondents stated that they *accept ALOP as a necessary tool*. That is they identify themselves as essentially being neither positively disposed towards the ALOP framework, nor opposed to it. Only one respondent stated that they believe that *ALOP is an appropriate approach*. No respondents identified themselves as having fundamental concern with ALOP. The sample indicates an attitude of acceptance of the ALOP framework, which means that the issues of contention

and disagreement are more likely to be about methodology and application, rather than about principle. Issues of principle or ideology are much less amenable to resolution than issues of methodology or application (Bryson, 2004). There are clearly avenues available to Biosecurity Australia to engage with its stakeholders on these issues. Indeed this workshop was an example of such engagement and was welcomed by a number of people present for that very reason.

One respondent identified concerns about the application of the ALOP in certain situations such as small or new industries. This respondent also identified concern about the way the ALOP framework was interpreted by stakeholders. Another respondent commented that defining Appropriate Levels of Protection as 'very low' is an appropriate approach, but there is concern over the methodology that is used in analysing risk. As we have seen, this was the subject of significant discussion at the workshop. Attendees had concerns about the accuracy of risk predictions when these are based on a limited volume of trade over a limited time and the apparent arbitrariness of the identification of a risk as either 'low' or 'very low' when the difference between the two could be quite minimal and yet one would not allow entry of a product and the other would allow entry.

#### Extent of influence over the ALOP framework.

With this question, the majority of respondents once again chose the middle path, responding that they had *some influence*. Only one respondent said they had *no influence* and only one stated they had *significant influence*. Interestingly, the respondent who stated they had *significant influence* was the respondent most in favour of ALOP, stating they believed it to be *an appropriate approach*. This respondent, who identified as an industry respondent, had also identified their interest in ALOP as encompassing all the listed areas. The respondent who stated that they had *no influence*, nonetheless accepted it *as a necessary tool*.

No respondent identified themselves as being both opposed to ALOP and disempowered in terms of their capacity to influence it. However, the clustering of stakeholders around the midway point on these two issues indicates there is the potential for a more positive attitude to the ALOP framework and, in the interests of transparency and democracy (Glicken, 2000), room for more consultation with stakeholders about the ALOP framework and its application to biosecurity risk assessments. One of the workshop attendees subsequently wrote that it was the first time that they had seen a true dialogue between stakeholders with acknowledgement of the different skill sets people brought to the issue.

Interestingly the next question only elicited one response. This question asked whether there are *other people/organisations you think have **too much influence** over the ALOP framework and its application to biosecurity risk assessments*. Only one respondent commented that they would have said DAFF had too much influence, but that the experience of this workshop had shown that DAFF is 'open to outside influence'.

#### Effectiveness of the workshop

Other questions in the survey asked whether the workshop had increased their knowledge or understanding of the ALOP as used by Biosecurity Australia in Import Risk Assessments and whether it had provided an effective forum for discussion of concerns about ALOP. Three responded to the first question *not at all*, whilst seven responded that it had *to some extent*. Comments referred to a better understanding of the matrix and of how the workshop had clarified that there is uncertainty around how the ALOP framework is applied in practice.

The second question generated a more positive response, with seven stating that it had *to some extent* provided an effective forum and three responding that it had done so *significantly*. The responses to this latter question and some of the additional comments provide insights into stakeholder needs with regard to consultation processes. One respondent commented that the workshop had provided the opportunity for open discussion of issues and concerns rather than "patch protection". That is, this respondent welcomed the opportunity for dialogue in a situation where people did not feel they had to defend specific positions. Another respondent commented about the lack of definitive expertise present and that the workshop would have benefited from the presence of Biosecurity Australia staff



better able to respond to detailed questions. That is, they were seeking to have an in-depth discussion about the technical aspects of the ALOP and this expectation had not been met. Other comments referred to the need for continued discussion between Biosecurity Australia and industry.

Other people/organisations that should have been involved in the workshop.

There were only two responses to this question. Representation from the Department of Health was suggested and additional representation from one of the organisations present.

Using the survey responses we then completed columns 2-5 of the Stakeholder Analysis Framework (Table 6.2).

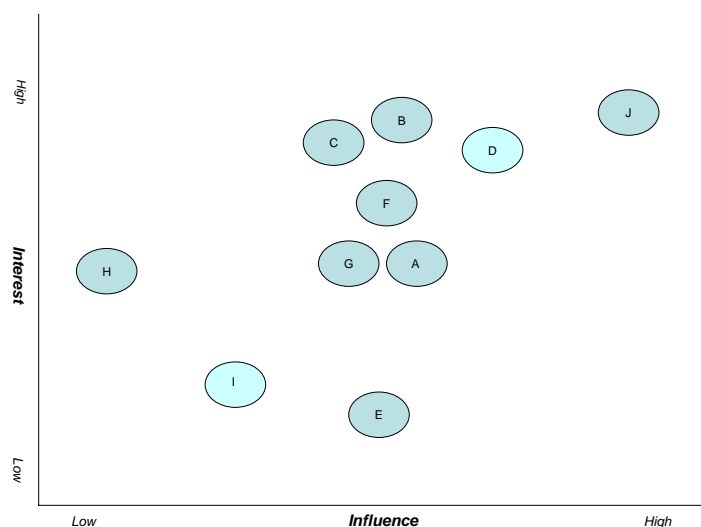
**Table 6.2** ALOP Workshop - Stakeholder Analysis Framework

<b>Stakeholder group</b>	<b>Power</b> (ability to influence outcome) - significant - some - none	<b>Interest</b> (public good, legal, financial, scientific) - high - medium - limited	<b>Attitude</b> - positive - accept as necessary - negative	<b>Relationships</b> - which organisations - unilateral/bilateral - strong-weak	<b>Capacity to contribute</b> - problem definition - source of knowledge - peer review	<b>How to involve</b> - keep informed - consult - involve in decision process
<b>Survey respondents</b>						
Stakeholder A (Farmer body)	some	limited	accept, but concerns	Other farmer bodies; industry groups; State agencies		
Stakeholder B (State Ag Dep't)	some	high (State applic'n)	Accept, but concerns re some applications and interpretation by stakeholders	State reps of industry/farmer groups; other State agencies/Dep'ts		
Stakeholder C (Industry group)	some	high	accept	DAFF; other industry groups; NFF		
Stakeholder D (Gov't/industry group)	no response	high	no response	industry groups; other areas of DAFF; PIAPH,		
Stakeholder E (Research org'n)	some	limited	accept	Other experts; scientific networks		
Stakeholder F (Farmer group)	some	high	accept	Other farmer bodies; industry groups; state agencies		
Stakeholder G (Farmer group)	some	limited	accept	Other farmer bodies; industry groups; State agencies		
Stakeholder H (Industry group)	none	medium	accept	DAFF; other industry groups; NFF		
Stakeholder I (Research org'n)	no response	limited	No response	Other research bodies; experts; scientific networks		
Stakeholder J (Industry group)	significant	high	positive	DAFF; other industry groups; NFF		

In completing this analysis framework, we realized that the information we had gathered from the survey was inadequate and ideally would be supplemented by a follow-up questionnaire or a telephone interview, much larger samples and on-going monitoring of attitudes. However, as this was a hypothetical example of stakeholder analysis, it was not appropriate to proceed with either of these options. We have therefore created fictitious, but illustrative labels for each of the stakeholders, and made a number of assumptions about level of interest and relationships. The discussion above simply illustrates the kinds of insights that may be drawn if one had a larger and more reliable sample.

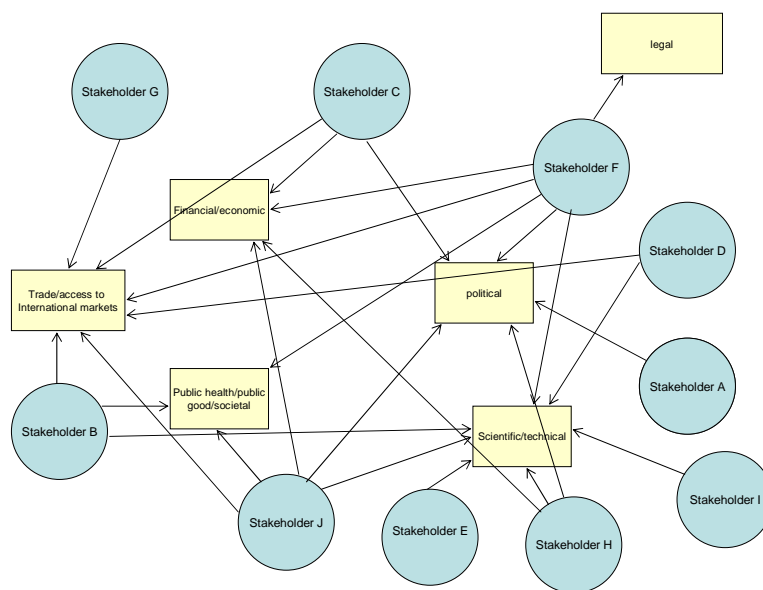
### Step Three: Mapping Stakeholders

The first task we undertook was to map the interest and influence of the stakeholders (**Figure 6.1**). In order to do this we made assumptions about the level of influence of the two stakeholders who did not respond to this question. (These two stakeholders are shown in a slightly lighter colour.) With respect to the ‘interest’ axis, we used the number of aspects identified by each stakeholder as a proxy of their level of interest. That is, those who had identified more aspects of the ALOP framework as being of interest to them, were scored as having higher interest than those who had identified only one or two aspects of the framework as being of interest.



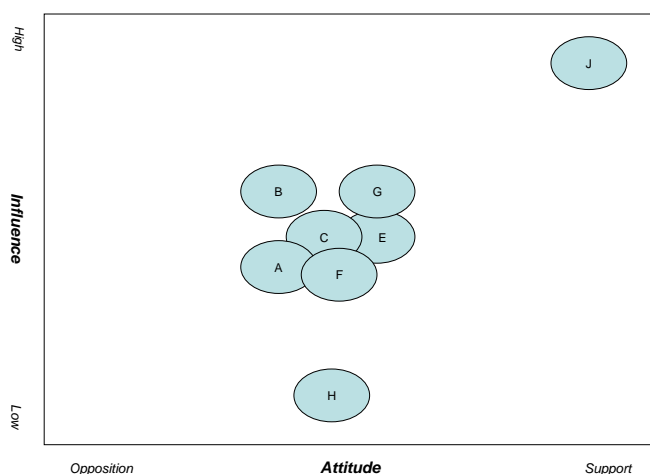
**Figure 6.1** ALOP Framework - Stakeholder Influence vs interest map (refer **Figure 4.2**)

This map shows that whilst the majority of stakeholders believe they have some capacity to influence the ALOP framework, the extent of their interest in the framework varies. Normally stakeholder theory would suggest that management focus its attention on those stakeholders in the top right hand quadrant of this map. However, as noted earlier (See Section 4) all those in the upper half of the map warrant careful attention, as do those in the lower right hand quartile. The predominance of stakeholders sitting in the middle of this map in terms of their perceived capacity to influence the ALOP framework, indicates an opportunity for increased consultation with these stakeholders to allow them greater access to and understanding of both the science and the political processes that underlie the framework. This map also needs to be read in the context of the following two maps, which provide greater insight into the drivers and perspectives of each stakeholder.



**Figure 6.2** ALOP Framework - Stakeholder-issue relationship map (refer **Figure 4.4**)

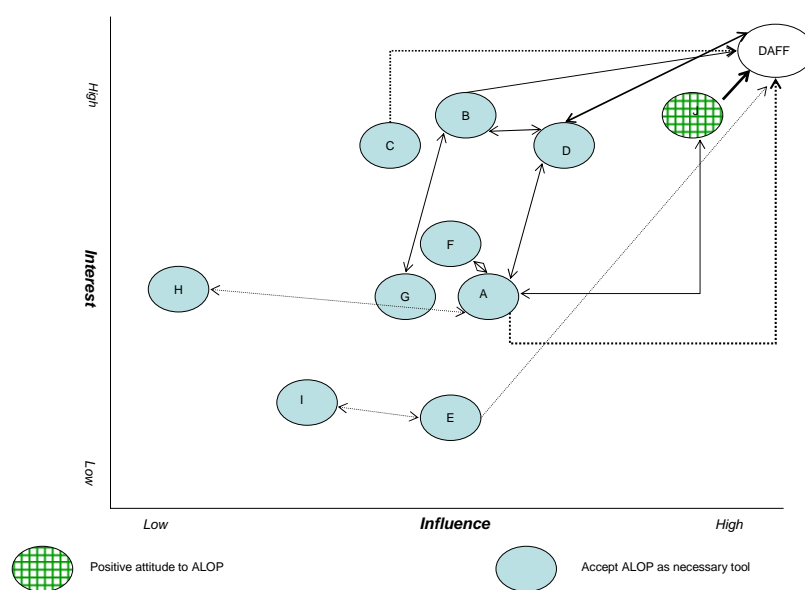
Figure 6.2 identifies those aspects of the ALOP framework which are of interest to the different stakeholders. From this map, we can draw conclusions about potential areas of common ground between the stakeholders and identify areas of stakeholder influence. This map also highlights those aspects of the ALOP framework that are of greatest interest to stakeholders, specifically the scientific and technical aspects and the trade and access to international markets aspects. As Bryson has suggested, by focusing on building support and agreement on these aspects of the issue, Biosecurity Australia may be able to build wider support for the framework itself.



**Figure 6.3** ALOP Framework - Problem-frame stakeholder map (refer **Figure 4.5**)

**Figure 6.3** identifies the attitude of each stakeholder vis-à-vis the ALOP framework and maps them according to both their attitude and their level of influence.

The majority of stakeholders are clustered in the middle of this map. They are neither supporters nor opponents of the ALOP framework. They accept it in principle. Some have some concerns about the methodology or its application. No stakeholder is opposed to the ALOP framework in principle. Only one is strongly in favour of it. Given this situation of overall acceptance, there is a significant opportunity for Biosecurity Australia to build greater support for the ALOP framework through increased consultation, transparency and openness about the framework and by focussing on those aspects of most interest to the stakeholders as identified in the previous map, specifically how are the technical and scientific analyses integrated into the ALOP framework and how does the ALOP framework relate more broadly to stakeholders' interest in trade and access to international markets.



**Figure 6.4** ALOP Framework - Integrated stakeholder analysis map (refer **Figure 4.6**)

Figure 6.4 overlays stakeholder attitude to the ALOP framework onto the influence/interest grid and then presents a hypothetical overlay of the networks amongst the stakeholders. No questions were asked in the survey about relationships and links, so both the links and the strength of those links are based on our assumptions. These assumptions are set out in Column 5 (Relationships) in the Stakeholder Analysis Framework (see **Table 6.2**). In addition to the links and relationships depicted, many of the stakeholders would have access to and interact with politicians and the media.

More in-depth questioning or a second survey would have been necessary to elucidate the material needed to create a reliable map showing stakeholder networks in relation to Biosecurity Australia and its ALOP framework. Nonetheless, this map shows the potential extent of stakeholder networks and how they could be used by Biosecurity Australia to start to develop a community of shared interest and understanding around this issue. We have included the Department of Agriculture, Fisheries and Forestry (DAFF) in this map, as a key stakeholder of Biosecurity Australia and one that is an integral part of the stakeholder network. A more comprehensive stakeholder analysis (including for example, environmental and consumer groups, the Department of Health, trading partners, politicians and the media) would have resulted in an integrated stakeholder analysis map which would have more accurately depicted the complex network of relationships that exists around this issue. Understanding the issues that are important to stakeholders and where there are shared interests is critical to providing a framework for productive dialogue. Similarly, understanding the network of relationships and

influence that exist amongst stakeholders can help in developing effective stakeholder communication strategies.

***Step Four: Using the stakeholder maps to develop a strategy for stakeholder consultation and involvement***

From the above maps, we can now develop a strategic plan for stakeholder consultation and involvement. For this, we return to the stakeholder analysis framework and complete the last two columns (Table 6.3). Identifying the areas in which different stakeholders can make a contribution is an important part of this process. It may entail broadening the context of what constitutes knowledge; it will probably entail a broader context for problem definition. The concept of peer review may also need to be broadened to include reference to the social, cultural and economic dimensions of risk. In communication about the stakeholder workshop, one of the stakeholders commented that farmers perceive impacts at different levels – both at an industry level and a personal level and each of these carries a different weight. They also bring to the discussion their own attitudes to risk and their own understanding of how pest outbreaks might occur. That is, they have practical knowledge, as well as perceptions influenced by their own personal experience or by socio-economic factors. Once these capacities to contribute have been identified, a proactive process of consultation may emerge.

The framework proposes consultation with all the stakeholders listed. This may seem an unnecessarily onerous requirement. However, the experience of this one workshop showed that the stakeholders had welcomed the opportunity to discuss the issue in an open forum. Continuing this process of consultation would be a useful strategy for Biosecurity Australia as it seeks to build trust between it and its stakeholders and shared understanding of the ALOP framework and its relevance to the specific interests of all the stakeholders. Clearly, the mode and extent of this consultation needs to be determined by Biosecurity Australia as part of its overall strategy for stakeholder engagement.

**Table 6.3** ALOP Workshop - Stakeholder Analysis Framework (hypothetically completed)

Stakeholder group	Power (ability to influence outcome)  - high - some - low	Interest (public good, legal, financial, scientific)  - high - medium - limited	Attitude  - positive - accept as necessary - negative	Relationships  - which organisations - unilateral/bilateral - strong-weak	Capacity to contribute  - problem definition - source of knowledge - peer review	How to involve  - keep informed - consult - involve in decision process - collaborate
<b>Survey respondents</b>						
Stakeholder A <i>Farmer body</i>	some	limited	accept, but concerns	Other farmer bodies; industry groups; State agencies;	problem definition source of knowledge	keep informed proactive consultation, particularly to broaden interest beyond the political frame
Stakeholder B <i>State Ag Dep't</i>	some	high (State applic'n)	accept, but concerns re some applications and interpretation by stakeholders	State reps of industry/farmer groups; other State agencies/Dep'ts	problem definition source of knowledge	Consult Possible partnership approach re decision-making
Stakeholder C <i>Industry group</i>	some	high	accept	DAFF; other industry groups; NFF	Problem definition and source of knowledge re relevant industry issues (IRAs)	keep informed proactive consultation on relevant issues
Stakeholder D <i>Gov't/industry committee</i>	no response	high	no response	industry groups; other areas of DAFF; PIAPH,	problem definition source of knowledge possible peer review	consult collaborate re decision process
Stakeholder E <i>Research org'n</i>	some	limited	accept	other experts, scientific networks	source of knowledge possible peer review	consult possibly involve in decision process
Stakeholder F <i>Farmer body</i>	some	high	accept	Other farmer bodies; industry groups; State agencies	problem definition possible peer review by expert adviser	proactive consultation, particularly around legal issues keep informed
Stakeholder G <i>Farmer body</i>	some	limited	accept	Other farmer bodies; industry groups; State agencies	problem definition source of knowledge	proactive consultation keep informed
Stakeholder H <i>Industry group</i>	low	medium	accept	DAFF, other industry groups, NFF	Problem definition and source of knowledge re relevant industry issues (e.g IRAs)	keep informed proactive consultation on relevant issues
Stakeholder I <i>Research org'n</i>	no response	limited	no response	Other research bodies; experts, scientific networks	source of knowledge possible peer review	consult possibly involve in decision process
Stakeholder J <i>Industry group</i>	high	high	positive	DAFF, other industry groups, NFF	Problem definition and source of knowledge re relevant industry issues (e.g IRAs)	keep informed proactive consultation on relevant issues

## Discussion

This illustrative example has demonstrated the application of the stakeholder analysis and mapping methodologies. We have used this process to refine the methodologies and maps we are proposing. The survey questionnaire did not elicit all the information needed and, on the basis of this experience, we have developed a revised survey that may have elicited the additional information needed (see Appendix Two).

The survey respondents were clearly not a comprehensive representation of the stakeholder universe around the ALOP framework. However, they did represent some of Biosecurity Australia's key stakeholders and as such the positions and attitudes they expressed could be representative of these key groups, even if not representative of the wider group of stakeholders. Had all the workshop attendees completed the survey, we would have had the opportunity to develop a more complete stakeholder network map around this issue, nonetheless still with a number of significant omissions.

The example has shown that stakeholder analysis and mapping can be a useful and productive tool in addressing risk analysis. It can assist in:

- identifying all relevant stakeholders;
- understanding the relative interest of those stakeholders in the issue and their relative influence over it;
- understanding the aspects of the issue that are of interest to different stakeholders and identifying areas of shared interest;
- understanding the attitudes of the various stakeholders to the risk issue;
- understanding the networks of influence amongst the stakeholders and between the stakeholders and the risk issue.

With this information, Biosecurity Australia can:

- develop a strategic approach to stakeholder consultation and engagement;
- identify areas of shared purpose and use these as a basis for building agreement and alignment;
- build the foundations for a stakeholder partnership approach to import risk analysis.

## 7. Conclusion and recommendations

For policy makers and practitioners, increased awareness of and involvement of stakeholders can be a double-edged sword. It can help bring new perspectives to an intractable issue or problem, but it can also bring to the surface new issues and new expectations which challenge existing practices, institutions and policies. These challenges nonetheless, can have positive outcomes and should be seen as part of a continuing process of evolution in policy and practice.

Used inappropriately stakeholder consultation processes can also be a way of bypassing or challenging established democratic structures and governance processes. Powerful stakeholders can use a consultative forum to push their own barrow, swamping the concerns and issues of other less vocal stakeholders (SLIM Policy Briefing #2). Stakeholder analysis and mapping as we have proposed in this report, is a way of ensuring an appropriate structure and a transparent process for stakeholder engagement, directed towards complementing rather than thwarting democratic processes (Owens, 2000: 1145).

Stakeholder analysis is not a neutral or value-free process. It is based on what will inevitably be imperfect information and on judgements made on the basis of that information. It presents a fixed or static picture of what is continually in flux. Stakeholder positions change, networks evolve, issues become more or less contested. Stakeholder mapping, therefore needs to be an ongoing process, continually revisited to check it against current perceptions.

### Recommendation 1:

We recommend the adoption of the stakeholder analysis and mapping protocols presented in this report as key strategic tools for improving the effectiveness and public acceptability of risk assessment processes and facilitating risk management.

We see that the adoption of these tools will assist in addressing some of the issues raised in the Nairn review. It will provide a framework that Biosecurity Australia and other business areas within the Department can apply in the development of stakeholder engagement processes to address the challenges both of risk assessment and risk management.

As the Nairn Review stated, “quarantine is a shared responsibility for the benefit of all Australians”. A practical and effective stakeholder engagement strategy will be critical to building support for this broader community view of biosecurity and quarantine risk responsibility. Stakeholder analysis and mapping of themselves cannot guarantee stakeholder representation. They do, however, provide a transparent and inclusive framework for stakeholder engagement, which can facilitate the processes of risk analysis and communication, improve efficiency by reducing the risk of issues becoming politicized and build trust in the decision-making process. As mentioned earlier, import risk analysis operates within a framework of international and national accountabilities. These mean that inevitably there will be stakeholders who do not agree with the decisions. However, strategic stakeholder analysis and consultation should contribute to their acceptance of the basis on which those decisions were made. Equally importantly, stakeholder analysis is critical to the development of effective risk communication and management strategies.

### Recommendation 2:

We recommend that DAFF consider the organisational capacity-building requirements necessary for it to be able to integrate effective stakeholder analysis and engagement processes for risk assessment and communication.

Stakeholder analysis and engagement may require changes to the way organisations and agencies do business. Agencies will need to look at what competencies are necessary for staff to manage stakeholder communication and involvement effectively. The Allen Consulting Group (1999)



identified the need for dedicated divisions within government agencies, with professional experience and expertise, to be responsible for these functions. Understanding and managing stakeholder processes are a critical part of the successful implementation of any strategy. Embedding (or indeed outsourcing, as with the National Weeds Management Facilitator) the skills and experience necessary for these tasks will be critical to building organisational capacity.

This review has identified two themes for further research that we recommend for consideration.

A) *The application of stakeholder mapping to Import Risk Analysis.*

We propose that the application of the stakeholder analysis and mapping methodologies developed in this review be tested within the context of a specific Import Risk Analysis. This will contribute to refining the tools and their relevance to biosecurity risk as well as contributing to the literature with respect to wider applications of these tools to risk analysis.

B) *Processes for effective stakeholder participation in risk assessment and risk management*

We propose further research, possibly in collaboration with the Centre for Public Policy and the Faculty of Land and Food Resources of the University of Melbourne, or other similarly skilled researchers, to link stakeholder mapping processes to governance, institutional and community structures that support stakeholder participation in decision-making, with respect to relevant DAFF case studies in areas other than biosecurity.

## 8. References

- Adam, B., Beck, U. and Van Loon, J. (2000). The risk society and beyond: Critical Issues for Social Theory, London, Sage
- Aligica, P. D. (2005). "Institutional and Stakeholder Mapping: Frameworks for Policy Analysis and Institutional Change." Global Prosperity Initiative, Working Paper # 58, Mercatus Center, George Mason University. [www.mercatus.org/publications](http://www.mercatus.org/publications)
- Allen, G., Suggett, D & Goodsir, B (1999). Stakeholder Relations in the Public Sector: Innovation in Management. Melbourne, The Allen Consulting Group.
- Althaus, C. E. (2003). "A Disciplinary Perspective on the Epistemological Status of Risk." Risk Analysis **25**(3): 567-588.
- Arnstein, S. (1969). "A ladder of citizen participation." Journal of American Institute of Planners **35**: 216-224
- Beck, U., Bonss, Wolfgang and Lau, Christoph (2003). "The theory of reflexive modernization." Theory, Culture and Society **Vol 20**(2): 1-33.
- Beierle, T. C. (2002). "The Quality of Stakeholder-based Decision." Risk Analysis **22**(4): 739-749.
- Beierle, T. C. & Cayford, J (2002). Democracy in Practice: Public Participation in Environmental Decisions. Washington D.C., Resources for the Future.
- Beilin, R., Paine, M., Njoba, J., Pryor, R. (2006). "Reconceptualising extension: a framework for managing complex social, economic and environmental issues in practice." (unpublished)
- Biosecurity Australia (2003) Import Risk Analysis Handbook, Commonwealth of Australia [www.daffa.gov.au/ba/ira/process-handbook](http://www.daffa.gov.au/ba/ira/process-handbook)
- Bocking, Stephen (2004) Nature's Experts: Science, Politics and the Environment, New Brunswick, New Jersey, Rutgers University Press
- Brody, S. D. (2003). "Measuring the effects of stakeholder participation on the quality of local plans based on the principles of collaborative ecosystem management." Journal of Planning Education and Research **22**: 407-419.
- Brugha, R. & Varvasovsky, Z. (2000) "Stakeholder analysis: A Review." Health Policy and Planning **15**(3):239-246
- Bryson, J. M. (2004) "What to do when stakeholders matter: A Guide to stakeholder identification and analysis techniques." Public Management Review **6**(1): 21-53
- Bryson, J. M. (2004). Strategic Planning for Public and Nonprofit Organizations, John Wiley & Sons.
- Bryson, J. M., Ackermann, F., Eden, C., Finn, C. B. (2004). Visible Thinking: Unlocking causal mapping for practical business results. Chichester, John Wiley and Sons Ltd.
- Burgman, M. (2005). Review of the Western Rock lobster Ecological Risk Assessment, 2005. Report to the Western Australian Fishing Industry Council.

Burgman, M. (2005) Risks and Decisions for Conservation and Environmental Management, Cambridge, Cambridge University Press

Carey, J., Beilin, R., Boxshall, A., Burgman, M. & Flander, L. (2006). "Risk-based Approaches to Deal with Uncertainty in a Data-Poor System: Stakeholder Involvement in Hazard Identification for Marine National Parks and Marine Sanctuaries in Victoria, Australia." Risk Analysis. (Accepted for publication)

Carolan, Michael S. (2004). "Ontological Politics: Mapping a Complex Environmental Problem." Environmental Values **13**: 497-522.

Carolan, Michael S. (2006). "Science, Expertise and the Democratization of the Decision-Making Process." Society and Natural Resources **19**: 661-668

Carr, Anna J. L. (2004). "Why Do We All Need Community Science?" Society and Natural Resources **17**: 841-849.

Clarke, J. N. & Cortner, H. J (2002). The State and Nature: Voices Heard, Voices Unheard in America's Environmental Dialogue. Upper Saddle River, New Jersey, Prentice Hall.

Clarkson, M.B.E. (1995). "A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance." The Academy of Management Review **20**(1): 92-117.

Coady, Linda. (1999) "Good Stuff You Mostly Won't Find on Anybody's Website." Unpublished paper delivered as the Doug Little Memorial Lecture, University of Northern British Columbia, cited in Svendsen and Laberge (2005 and 2006)

Cosby, B.C. & Bryson, J.M. (2005). Leadership for the Common Good: Tackling Problems in a Shared World, San Francisco, Jossey-Bass.

Cummings, J. & Doh, J. P. (2000). "Identifying Who Matters: Mapping key players in multiple environments." California Management Review **42**(2): 83-104.

Dambacher, J. M., Brewer, D., Dennis, D.M., Macintyre, M. & Foale, S. (2006). "Qualitative modelling of gold mine impacts on Lihir Island's socio-economic system and reef-edge fish community." unpublished paper, submitted to Environmental Science and Technology

Davis, I. (2005). "The biggest contract." The Economist, May 28, 2005

De Lopez, T. T. (2001) "Stakeholder Management for Conservation Projects: A Case Study of Ream National Park, Cambodia." Environmental Management **Vol. 28**(1): 47-60.

de Marchi, B. & Ravetz, R.. (1999). "Risk management and governance: a post-normal science approach." Futures **31**: 743-757.

Donaldson, T. and Preston, L.E. 1995, "The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications." The Academy of Management Review **20**(1): 65-91

Dryzek, J. S. (2000). Deliberative Democracy and Beyond - Liberals, Critics, Contestations. Oxford, Oxford University Press.

D.S.E. (2005). Effective Engagement: building relationships with community and other stakeholders. Community Engagement Network, Department of Sustainability and Environment, Victoria, 3<sup>rd</sup> ed.

Dunham, L., Freeman, R. E. & Liedtke, J. (2001). "The Soft Underbelly of Stakeholder Theory: The Role of Community." Darden Graduate School of Business Administration, University of Virginia, Working Paper No. 01-22

Eden, Colin & Ackermann, Fran (1998) Making Strategy, The Journey of Strategic Management. London, Sage Publications

Feldman, M.S. & Khademian, A.M. (2002) "To Manage is to Govern." Public Administration Review **62** (5): 541-554

Finucane, Melissa (2000) "Improving Quarantine Risk Communication: Understanding Public Risk Perceptions." Report No 00-7, Decision Research [www.decisionresearch.org](http://www.decisionresearch.org)

Fiorino, D. (1990). "Citizen Participation and Environmental Risks: A Survey of Institutional Mechanisms." Science, Technology & Human Values **15**(2): 226-243.

Fischer, F. (2000). Citizens, Experts and the Environment: The Politics of Local Knowledge, Durham, Duke University Press

Fischhoff, B. (1995). "Risk Perception and Communication Unplugged: Twenty Years of Process." Risk Analysis **15**(2): 137-145.

Foster, J., ed. (1997). Valuing Nature?: ethics, economics and the environment. London; New York, Routledge

Freeman, R. E. (1984) Strategic Management: A Stakeholder Approach. Boston, Massachusetts, Pitman

Freeman, R. E. (1997). "A stakeholder theory of the modern corporation." in Beauchamp, T & Bowie, N.eds. Ethical Theory and Business, 5<sup>th</sup> ed. Upper Saddle River, N.J. Prentice Hall; 66-76

Freeman, R. E. (1999). "Divergent Stakeholder Theory." Academy of Management Review **24**(2): 233-236.

Freudenburg, W. R. (1999). "Tools for Understanding the Socio-economic and Political Settings for Environmental Decision Making." in Dale, V & English, M. eds Tools to Aid Environmental Decision Making. New York, Springer-Verlag: 94-125.

Frooman, J. (1999). "Stakeholder Influence Strategies." Academy of Management Review **24**(2): 191-205.

Frost, F.A. (1995). "The Use of Stakeholder Analysis to Understand Ethical and Moral Issues in the Primary Resource Sector." Journal of Business Ethics **14**: 653-661

Funtowicz, S. & Ravetz, J (no date). "Post-Normal Science: Environmental Policy under Conditions of Complexity." [www.nusap.net](http://www.nusap.net)

Future 500, [www.future500.org](http://www.future500.org)

Gable, Cate & Shireman, Bill (2005). "Stakeholder Engagement: A Three-Phase Methodology." Environmental Quality Management **14**(3): 9-24

Gershenson, C. & Heylighen, F. (2005). "How can we think the complex?" in Richardson, K. ed Managing Organizational Complexity: Philosophy, Theory and Application, ch. 3. Information Age Publishing

Glicken, J. (2000). "Getting stakeholder participation 'right': a discussion of participatory processes and possible pitfalls." Environmental Science and Policy **3**: 305-310.

Glicken, J. (1999). "Effective Public Involvement in Public Decisions." Science Communications **20**(3): 298-327

Gray, P. C. R., Stern, R.M., & Biocca, M., eds (1998). Communicating about Risks to Environment and Health in Europe. Dordrecht, The Netherlands, Kluwer Academic Publishers.

Grimble, Robin and Wellard, Kate (1997). "Stakeholder Methodologies in Natural Resource Management: a Review of Principles, Context, Experiences and Opportunities." Agricultural Systems **55** (2): 173-193

Healy, Stephen and Handmer, John (1996) "Communicating Uncertainty in the Risk Society." Paper presented to the 1996 Annual meeting of the Society for Risk Analysis – Europe.

Hemmati, M. (2002). Multi-stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict. London, Earthscan Publications.

Howden, P. (2006). Defining Network Governance: Sorting through the maze of concepts. Practice Change Research Working Paper, Department of Primary Industries, Victoria (unpublished)

Hulse, D., Branscomb, A, & Payne, S. (2004) "Envisioning Alternatives: Using Citizen Guidance to Map Future Land and Water Use." Ecological Applications **14** (2): 325-341

Huxham, Chris, ed (1996). Creating Collaborative Advantage. London, Sage Publications

International Institute for Environment and Development (2005) Stakeholder Influence Mapping, [www.policy-powertools.org](http://www.policy-powertools.org)

Irvin, R.A. & Stansbury, J. (2004) "Citizen Participation in Decision Making: Is It Worth the Effort?" Public Administration Review, **64** (1): 55-65

Irwin, A. (1995). Citizen Science: A study of people, expertise and sustainable development. London, Routledge.

Jasanoff, S. (1993). "Bridging the Two Culture of Risk Analysis." Risk Analysis **13**(2): 123-129.

Jasanoff, S. (1997). "Public Knowledge, Private Fears." Social Studies of Science **27**(2): 350-355.

Jasanoff, S. and Long, Marybeth M. eds (2004). Earthly Politics: Local and Global in Environmental Governance. Cambridge, Massachusetts, MIT.

Jennings, M. M. (1999). Stakeholder Theory: Letting Anyone Who's Interested Run the Business - No Investment Required. Corporate Governance, University of St Thomas, on line. [www.ssthom.edu/academics/centers/cbes/marianne\\_jennings.html](http://www.ssthom.edu/academics/centers/cbes/marianne_jennings.html).

Jones, T.M., Felps, W. & Bigley, G.A. (2007) "Ethical Theory and Stakeholder-Related Decisions: The Role of Stakeholder Culture." Academy of Management Review **32**(1): 137-155

Kearney, A. R. and Bradley, G. (1998). "Human dimensions of forest management: an empirical study of stakeholder perspectives." Urban Ecosystems **2**: 5-16.

Kloprogge, P. & van der Sluijs, J. P. (2006). "The Inclusion of Stakeholder Knowledge and Perspectives in Integrated Assessment of Climate Change." Climate Change **75**: 359-389.

Lawrence, Anne T., Weber, James & Post, James E. (2005). Business and Society: Stakeholders, Ethics, Public Policy, New York, McGraw-Hill

Lash, S., Szerniski, B. and Wynne, B. (1996). Risk, Environment and Modernity: Towards a New Ecology. London, Sage Publications.

Lee, S. & Roth, W-M. (2006). "Community-Level Controversy over a Natural Resource: Toward a More Democratic Science in Society." Society and Natural Resources **19**: 429-445.

Liepins, Ruth (2000) "New energies for an old idea; reworking approaches to 'community' in contemporary rural studies" Journal of Rural Studies **16**: 23-35

Linkov, I., Varghese, A., Jamil, S., Seagher, T.P., Kiker, G. & Bridges, T. (2004). "Multi-Criteria Decision Analysis: A Framework for Structuring Remedial Decisions at Contaminated Sites." in Linkov, I. & Ramadan, A. eds. Comparative Risk Assessment and Environmental Decision-Making. Kluwer: 15-54.

Lockie, S. & Rockloff, S. (2005). Stakeholder analysis of coastal zone and waterway stakeholders in the Port Curtis and Fitzroy Catchments of Central Queensland. Technical Papers. CRC for Coastal Zone Estuary and Waterway Management. [www.coastal.crc.org.au](http://www.coastal.crc.org.au)

Lockie, S. & Rockloff, S. (2005). Decision frameworks: Assessment of the social aspects of decision frameworks and development of a conceptual model. Technical Reports. CRC for Coastal Zone Estuary and Waterway Management. [www.coastal.crc.org.au](http://www.coastal.crc.org.au)

May, P. J., Burby, Raymond J., Ericksen, Neil J., Handmer John W., Dixon, Jennifer E., Michaels, Sarah and Ingle Smith, D. (1996). Environmental Management and Governance: Intergovernmental approaches to hazards and sustainability. London, Routledge.

Mayer, Sue and Stirling, Andy (2002). "Finding a Precautionary Approach to Technological Developments – Lessons for the Evaluation of GM Crops." Journal of Agricultural and Environmental Ethics **15**: 57-71

McDaniels, T.L., Gregory, R.S. & Fields, D. (1999). "Democratizing Risk Management: Successful Public Involvement in Local Water Management Decisions." Risk Analysis **19**(3): 497-510.

Mitchell, R. K., Agle, B.R. and Wood, D. J (1997). "Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts." The Academy of Management Review **22**(4): 853 - 886.

Nairn, M.E., Allen, P.G., Inglis, A.R. & Tanner, C. (1996) Australian Quarantine: a shared responsibility. Canberra, Department of Primary Industries and Energy

Neville, B. A. & Menguc, B. (2006). "Stakeholder Multiplicity: Toward an Understanding of the Interactions between Stakeholders." Journal of Business Ethics **66**: 377-391.

Newson, M. & Chalk, Liz (2004). "Environmental Capital: An Information Core to Public Participation in Strategic and Operational Decisions - The Example of River 'Best Practice' Projects." Journal of Environmental Planning and Management **47**(6): 899-920.

Nutt, P. (2002). Why Decisions Fail. San Francisco, Berrett-Koehler.

Owens, S. (2000). "Engaging the public: information and deliberation in environmental policy." Environment and Planning A (32): 1141-1148

Ozesmi, U. & Ozesmi, S. (2003). "A Participatory Approach to Ecosystem Conservation: Fuzzy Cognitive Maps and Stakeholder Group Analysis in Uluabat Lake, Turkey." Environmental Management **31**(4): 518-531.

Perhac, R. M. (1998). "Comparative Risk Assessment: Where Does the Public Fit In?" Science, Technology & Human Values **23**(2): 221-241.

Phillips, R. (2003). Stakeholder Theory and Organizational Ethics. San Francisco, Berrett-Koehler Publishers, Inc.

Preston, L. E. (1998). "Agents, Stewards and Stakeholders." Academy of Management Review **23**(1): 9.

Ravetz, J. (2004). "The post-normal science of precaution." Futures **36**: 3470357.

Regan, H. M., Colyvan, Mark and Burgman, Mark A (2002). "A Taxonomy and Treatment of Uncertainty for Ecology and Conservation Biology." Ecological Applications **12**(2): pp 618-628.

Robins, R. (2001). "Overburdening risk: policy frameworks and the public uptake of gene technology." Public Understanding of Science **10**: 19-36.

Rowley, T. J. (1997). "Moving Beyond Dyadic Ties: A Network Theory of Stakeholder Influences." The Academy of Management Review **22**(4): 887-910.

Sandman, P. (1993). Responding to Community Outrage: Strategies for Effective Risk Communication, American Industrial Hygiene Association.

Shepherd, R., Barker, G. French, S., Hart, A., Maule, J. & Cassidy, A. (2006). "Managing Food Chain Risks: Integrating Technical and Stakeholder Perspectives on Uncertainty." Journal of Agricultural Economics **57**(2): 313-327.

SLIM (2004). Stakeholders and Stakeholding in Integrated Catchment Management and Sustainable Use of Water. Policy Briefing. Social Learning for the Integrated Management and Sustainable Use of Water at Catchment Scale. Open University and others. <http://slim.open.ac.uk>

Slimak, M. W. & Dietz, T. (2006). "Personal Values, Beliefs, and Ecological Risk Perception." Risk Analysis **26**(6): 1689-1705.

Slovic, P. (1999). "Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield." Risk Analysis **19**(4): 689-701.

Slovic, P., Finucane M. L., Peters, E. & MacGregor, D.G. (2004). "Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk and Rationality." Risk Analysis **24**(2): 311-322.

van der Sluijs, J.P., Risbey, J.S., Kloprogge, P., Ravetz, J.R., Funtowicz, S.O., Quintana, S.C., Pereira, A.G., de Marchi, B. Petersen, A.C. Janssen, P.H.M., Hoppe, R & Huijs, S.W.F. (2003) RIVM/MNP Guidance for Uncertainty Assessment and Communication, Utrecht, Copernicus Institute for Sustainable Development, Utrecht University [www.mnp.nl/leidraad](http://www.mnp.nl/leidraad)

Smith, A. D. M., Sainsbury, K.J. & Stevens, R.A. (1999). "Implementing effective fisheries-management systems - management strategy evaluation and the Australian partnership approach." ICES Journal of Marine Science **56**: 967-979.

Snowden, David (2002) "Complex acts of knowing: paradox and descriptive self-awareness." Journal of Knowledge Management **6**(2): 100-111

Starik, M. (1995) "Should Trees Have Managerial Standing? Toward Stakeholder Status for Non-Human Nature." Journal of Business Ethics **14**: 207-217

Stokes, K.E., O'Neill, K.P., Montgomery, W.I., Dick, J.T.A., Maggs, C.A. & McDonald, R.A. (2006) "The importance of stakeholder engagement in invasive species management: a cross-jurisdictional perspective in Ireland." Biodiversity and Conservation **15**: 2829-2852

Surowiecki, J. (2004). The Wisdom of Crowds: Why the Many are Smarter Than the Few, London, Abacus, 2005.

Svendsen, A. & Laberge, M. (2006). Beyond Consultation: A Co-Creative Approach to Stakeholder Engagement. [www.correlation.com/publications.html](http://www.correlation.com/publications.html)

Svendsen, A. & Laberge, M (2005). "Convening Stakeholder Networks: A New Way of Thinking, Being and Engaging." Journal of Corporate Citizenship **19**: 91-103

Syme, G.J., Nancarrow, B.E. & McCreddin, J.A. (1999) "Defining the components of fairness in the allocation of water to environmental and human uses." Journal of Environmental Management **57**: 51-70

Treffny, R. (2006). Evaluation of stakeholder empowerment in risk assessment processes for Marine Protected Area Management. Department of Forestry. Munich, Technische Universitate Munchen. unpublished thesis

Turnbull, D. (2000, reprinted 2003, transferred to digital print 2005). Masons, Tricksters and Cartographers: Comparative Studies in the Sociology of Scientific and Indigenous Knowledge. Abingdon, Oxon, Routledge.

Wenger, E. (1998). Communities of practice: Learning, meaning and identity. Cambridge, Cambridge University Press.

Wheeler, D. & Sillanpaa, Maria (1997). The Stakeholder Corporation: a blueprint for maximising stakeholder value. London, Pitman Publishing.

World Health Organization Stakeholder Analysis, [www.who.int/en](http://www.who.int/en)

World Bank, ed. (1996). Participation Source Book. [www.worldbank.org/wbi/sourcebook/sbhome/htm](http://www.worldbank.org/wbi/sourcebook/sbhome/htm)

Wynne, B (1996) "May the sheep safely graze." chapter in Lash, Szerniski and Wynne, Risk, Environment and Modernity, London, Sage

Wynne, B (1992) "Carving out Science (and Politics) in the Regulatory Jungle." Social Studies of Science **22** (4): 745-758



## 9. Appendices

### A. ALOP Workshop Participant Survey

The purpose of the workshop is to help ACERA understand your concerns about the application of the Appropriate Levels of Protection framework to biosecurity risks. The purpose of this questionnaire is to help us (ACERA) to understand better the people who have concerns, their relationships to the issue and to one another. We will use the results to help us evaluate the extent to which we should consult further with people about these issues.

All responses will be treated confidentially.

**1. How did you or your organisation come into contact with ALOP?** (e.g. as an industry respondent to a recent IRA, as a member of a Steering Group/Advisory Committee, through an industry association/group, as an expert respondent to an IRA, etc)

.....  
.....

**2. Has this workshop increased your knowledge or understanding of the Appropriate Level of Protection (ALOP) as used by Biosecurity Australia in Import Risk Assessments (IRAs)?** Please circle the response that best approximates your experience

*Not at all*                                      *To some extent*                                      *Significantly*

Can you give a specific example of how it has increased your knowledge/understanding?

.....

**3. Has this workshop provided an effective forum for discussion of concerns about ALOP?** Please circle the response that best approximates your experience

*Not at all*                                      *To some extent*                                      *Significantly*

Can you give a specific example of an issue of concern to your organisation?

.....

**4. How would you characterise you/your organisation's interest in ALOP?** Please circle any that are relevant and elaborate if you wish

- Financial/economic
- Political
- Scientific/technical
- Public health/public good/societal issues
- Trade/access to international markets
- Other (please specify)

.....  
.....

**5. Please circle the words that best characterise you/your organisation's attitude to ALOP?** Please provide specific comments if you wish.

- Fundamental concern
- Accept it as a necessary tool
- Believe it is an appropriate approach

.....  
.....

**6. Please circle the words that best describe the extent of your influence over the ALOP framework and its application to biosecurity risk assessments? How is your influence exercised?**

- No influence
- Some influence (please specify, e.g. political – lobbying, via the media, technical/scientific advice)
- Significant influence (please specify, e.g. political – lobbying, via the media, technical/scientific advice)

.....  
.....

**7. Are there other people/organisations you think have too much influence over the ALOP framework and its application to biosecurity risk assessments? Elaborate if you wish.**

.....  
.....

**8. Are there other people/organisations you think should have been involved in this workshop to ensure comprehensive representation of stakeholder views on ALOP?**

.....  
.....

**9. Do you have any comments/suggestions you would like to make about this workshop, or the role of ACERA?**

.....  
.....

Thank you for your comments.

Mark Burgman

Your name (optional):



**8. Please circle the words that best describe the extent of your influence over the ALOP framework and its application to biosecurity risk assessments? How is your influence exercised?**

- No influence
- Some influence (please specify, e.g. political – lobbying, via the media, technical/scientific advice)
- Significant influence (please specify, e.g. political – lobbying, via the media, technical/scientific advice)

.....  
.....

**9. In what way do you think you/your organisation could best contribute to the development and application of the ALOP framework?**

- Framing the problem – scope, issues to be considered,
- Providing practical advice/experience
- Peer review
- Other (please specify)

.....  
.....

**10. Are there other people/organisations you think have influence over the ALOP framework and its application to biosecurity risk assessments? Elaborate if you wish.**

.....  
.....

**11. Are there other people/organisations you think should have been involved in this workshop to ensure comprehensive representation of stakeholder views on ALOP?**

.....  
.....

**12. With which organisations or individuals do you have interactions**

with respect to ALOP? .....

with respect to other aspects of Biosecurity Australia's work?

.....

**12. Do you have any comments/suggestions you would like to make about this workshop, or the role of ACERA?**

.....  
.....

Thank you for your comments.