

DEVELOPING A BIOSECURITY STRATEGY FOR NEW ZEALAND

SUBMISSIONS ON THE 'ISSUES PAPER': A SUMMARY REPORT

1. Introduction

This report is a summary of the main comments in the 122 submissions received on the '*Issues Paper: Developing a Biosecurity Strategy for New Zealand*' (September 2001). All submissions were logged and numbered in the order they were received.

Collectively, the submissions included substantial comments on all the material in the *Issues Paper*. This report focuses on the topics of most interest to submitters, describes the main views held on those topics, and assesses the degree of support for those views. The report does not identify or attribute specific comments to individual submissions. However, it does refer to categories of submitters where it is clear that they hold particular views on specific topics.

The strategy development team is grateful to all those who took the time and trouble to make submissions on the *Issues Paper*. Their contribution to development of the *draft Biosecurity Strategy* is much appreciated.

2. Background to the development of a national *Biosecurity Strategy*

The Biosecurity Council (the Minister for Biosecurity's advisory group) is co-ordinating the development of a comprehensive national *Biosecurity Strategy*. A biosecurity strategy development team is managing the process for the Biosecurity Council. The strategy is intended to ensure that New Zealand's economy, environment and people's health are adequately protected in the future from pests and diseases.

Many people and organisations with an interest in biosecurity are involved in the strategy development process, which is intended to obtain agreement on goals and objectives for New Zealand's future biosecurity programmes. Public consultation is an important aspect of that process. It gives people with an interest in biosecurity an opportunity to have their

say and to contribute their ideas directly to the strategy team. Making written submissions on discussion papers is acknowledged to be a particularly effective means of providing input to development processes. That is certainly true in this case, with the submissions on the *Issues Paper* reported on here making a valuable contribution to development of the *draft Biosecurity Strategy*.

3. Development and structure of the *Issues Paper*

A wide range of biosecurity stakeholders, including government agencies and nine specially convened Stakeholder Working Groups, contributed to development of the *Issues Paper* from April to July 2001. The Minister for Biosecurity released the *Issues Paper* on 27 September 2001. The *Issues Paper* was structured into the following four sections:

- Section 1: Strategic Directions and Objectives.
- Section 2: Biosecurity Principles and Policies.
- Section 3: Biosecurity Systems and Procedures.
- Section 4: Biosecurity Operations.

Each section of the *Issues Paper* contained a number of questions designed to stimulate thought and discussion, and to assist with the preparation of written submissions. There were 60 questions in all. A full list of these 60 questions is provided in Appendix I.

4. Public consultation on the 'Issues Paper'

The *Issues Paper* was used as the basis for a nation-wide series of public meetings, regional workshops and hui during October to November 2001. In addition, all persons with an interest in biosecurity were invited to make written submissions on the *Issues Paper* by the target date of 31 December 2001.

The biosecurity strategy development team provided a *Guide to Making a Written Submission* in the *Issues Paper*. This guide made it clear that the team wanted to know the views of New Zealanders on, amongst other things:

- what the biosecurity programme should strive to achieve;
- the strengths and weaknesses of current biosecurity arrangements;
- likely future trends.

The guide emphasised that submitters should not feel constrained by the issues and questions in the *Issues Paper*, but should feel free to cover any aspect of biosecurity they wished in their submissions. However, submitters were asked to go beyond identifying problems and making comments, and to propose possible solutions to problems, and to identify

costs and benefits where appropriate, in order to help the strategy development team to prepare the draft biosecurity strategy.

5. Structure of this report

This report presents information on:

- categories of submitters and the number of submissions per category;
- particular interests of the various categories of submitters;
- key topics and questions addressed in submissions;
- major themes in the submissions.

6. Categories of submitters and number of submissions

One hundred and twenty two (122) submissions were made on the *Issues Paper*. Some submitters answered all 60 questions, some covered a few specific topics, and others made just one or two points about particular matters of interest or concern. For purposes of analysis, where the submitter did not link comments directly to specific sections of the *Issues Paper* we used our judgement to assign them to the most relevant sections or questions. In total, 1,317 discrete answers to questions were recorded (an average of 22 per question: range 7-43).

The 122 submissions were placed in one of eleven sector (or interest area)-based broad submitter categories (see Table 1). Ninety-five (78%) submissions and 935 (71%) of the discrete comments came from four categories of submitters: *Individual and 'Other'*, *Land-based Industries*, *Regional Councils (and other local authorities)*, and *Environmental Interests*.

TABLE 1: Submitter categories and number (%) of submissions per category

Submitter categories (and abbreviations)	Number (%) of submissions	Number (%) of discrete comments	Average number of comments per submission
Individual and Other (Other)	29 (23.5%)	273 (20.5%)	13
Land-based industries (Land)	24 (19.5%)	264 (20.0%)	12
Regional Councils (Regional)	22 (18.5%)	257 (19.5%)	11
Environmental interests (Environment)	20 (16.5%)	147 (11.0%)	5
Government departments (Government)	8 (6.5%)	131 (10.0%)	16
Science & Research organisations (Science)	7 (5.5%)	108 (8.0%)	15
Marine Industries (Marine)	4 (3.5%)	40 (3.0%)	20
Maori (Maori)	3 (2.5%)	29 (2.5%)	14
Public Health organisations (Health)	2 (1.5%)	26 (2.0%)	6
Trade and Transport industries (Trade)	2 (1.5%)	31 (2.5%)	10
Tourism industries (Tourism)	1 (1.0%)	11 (1.0%)	11
Totals	121 (100%)	1317 (100%)	11

7. Particular interests of submitters

The matters of particular interest to various categories of submitters are presented below in relation to the relevant Sections in the *Issues Paper*.

In **Section 1**, regional councils were most interested in biosecurity leadership and the definition of biosecurity. The science community was concerned about the paucity of information in the marine environment. Land-based industries and environmental interests focused on the values at stake and sought to enhance international partnerships.

In **Section 2**, central government agencies, environmental interests and land-based industries shared concerns about levels of risk and protection. Land-based industries were also particularly interested in international agreements and the protection of international trade and travel. Regional councils reflected their pest management mandate in a wish to see more compatibility in the legislation bearing on biosecurity.

In **Section 3**, central government agencies were mostly concerned with the co-ordination of multi-agency responsibilities. Regional councils shared that concern, and also wished to ensure that beneficial new organisms can still be brought into the country. The science community quite naturally focused on improving scientific support for biosecurity. For the environmental interests, contestable services were a concern, as was the question of who pays for biosecurity. Land-based industries also commented on “who pays” and wished to ensure that stakeholders have a part to play in biosecurity management.

In **Section 4**, the difficulties faced by regional councils in pest management emerged again with their interest in principles and criteria, 'internal borders' and powers available to them. Related to this was the interest of the science community in biosecurity surveillance and monitoring. Environmental interests wished to see more attention given to enforcement and new border measures. Land-based industries also wanted to see new measures introduced, coupled with better education and awareness.

TABLE 2: Number & percentage of comments per section made by submitter categories

	SUBMITTER CATEGORIES											Total
	Gov	Reg	Sci	Env	Lnd	Mar	Hth	Tra	Tsm	Oth	Iwi	
Section 1												
Number of comments	31	70	30	66	43	11	7	6	2	30	13	309
<i>% of Section comments</i>	<i>10</i>	<i>23</i>	<i>10</i>	<i>21</i>	<i>14</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>10</i>	<i>4</i>	<i>100</i>
Section 2												
Number of comments	31	46	12	56	49	5	3	11	1	20	4	238
<i>% of Section comments</i>	<i>13</i>	<i>19</i>	<i>5</i>	<i>24</i>	<i>21</i>	<i>2</i>	<i>1</i>	<i>5</i>	<i>0</i>	<i>8</i>	<i>2</i>	<i>100</i>
Section 3												
Number of comments	38	76	36	63	71	6	10	11	3	31	7	352
<i>% of Section comments</i>	<i>11</i>	<i>22</i>	<i>10</i>	<i>18</i>	<i>20</i>	<i>2</i>	<i>3</i>	<i>3</i>	<i>1</i>	<i>9</i>	<i>2</i>	<i>100</i>
Section 4												
Number of comments	31	72	30	88	94	4	9	12	5	66	7	418
<i>% of Section comments</i>	<i>7</i>	<i>17</i>	<i>7</i>	<i>21</i>	<i>22</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>16</i>	<i>2</i>	<i>100</i>
Total comments made	131	264	108	273	257	26	29	40	11	147	31	1317

- Gov** Government
- Reg** Regional Councils
- Sci** Science and Research
- Env** Environment
- Lnd** Land
- Mar** Marine
- Hth** Health
- Tra** Trade
- Tsm** Tourism
- Oth** Other
- Iwi** Maori

8. Key topics and questions

The number of comments per question ranged from 9 to 43. The topics and questions that attracted the most attention are summarised in Table 3.

TABLE 3: Key topics and questions

Section	Question	Topic (abbreviated)	Number of comments per question
1	01	Values at stake.	43
	13	Partnerships with other countries.	34
	08	Appropriate leadership.	30
2	18	The precautionary principle.	33
	17	Principles for risk management.	29
	23	What changes to the Biosecurity Act?	27
3	34	Principles for whom should meet cost.	38
	25	Improving the multi-agency approach.	33
	26	Involving stakeholders.	33
	35	Funding the incursion response.	33
4	58	Managing established pests.	31
	54	Successful education and awareness.	30
	56	Improving enforcement.	29

Section 1 - Strategic Directions and Objectives

Top Questions: 1, 13, and 8.

Question 1: What is the range of values and interests protected by New Zealand's biosecurity programme?

The answer is very clear from all sectors. The key values identified were:

- a healthy environment;
- primary production;
- the health and well-being (including spiritual well-being) of New Zealanders;
- the health of the national economy.

Many submitters emphasised that biosecurity is of similar importance to national security, making the point that only armed warfare would be more damaging than a major failure in the biosecurity system.

There is clearly tension over the relative emphasis that seems to have been given in the past to protecting the primary production sector compared to the natural environment. However, it was noted that 67% of export income still comes from primary production and it is this income base that helps to fund biosecurity as a whole. On the other hand, it was

also noted that a clean healthy environment is vital to the health and marketability of those same exports. Tourism too is trading heavily on the “clean and green” image of New Zealand.

Question 13: To what extent should New Zealand seek to enhance biosecurity partnership arrangements with other countries?

Submitters expressed strong support for international alliances, co-operation and common standards, especially between New Zealand, Australia, the rest of the Pacific region, and Asia. Many advocated that New Zealand should become a regional leader in biosecurity. They argued that if we help to train other countries (particularly island nations) to improve their biosecurity, we will thereby reduce risks to ourselves by keeping unwanted organisms offshore. Through such co-operative enterprises we can also learn from the experience of others in managing biosecurity risk.

There was strong support for the view that New Zealand must become known for having the strongest biosecurity standards in the world, and biosecurity must be prominent in any international trade conventions that we negotiate or sign. One of the most difficult aspects of international biosecurity concerns ships, because they carry and discharge ballast water from other regions, and their hulls are mobile platforms for alien organisms.

Many submitters also noted that we have our obligations to observe international biosecurity conventions, and the biosecurity requirements of other countries. This means that we should take care not to export organisms that are already pests here, or that could become pests elsewhere.

Question 8: What factors should be considered in determining appropriate leadership arrangements for New Zealand's biosecurity programme?

Responses to this and other questions reflect a strongly held view that current biosecurity management is unnecessarily complex, confusing and lacking in common standards and co-ordination. The word “fragmented” was often used. MAF is generally seen as a good lead agency for protecting primary production and, to a lesser but growing extent, the natural environment, because it has the resources and expertise. However, many considered that protection of human health and the marine environment from biosecurity risks requires a quite different set of skills. Many submissions advocated the creation of a Ministry of Biosecurity (or equivalent) to emphasise the crucial need for central oversight and clear, unambiguous, roles and responsibilities.

It was noted that whatever form of biosecurity leadership is adopted, its public profile must be high and of good quality.

Section 2 - Biosecurity Principles and Policies

Top Questions: 18, 17 and 23.

Question 18: How could precaution be applied in biosecurity decision-making particularly when there is a lack of information on risks to native flora and fauna?

The precautionary principle was criticised quite strongly in some submissions because it cannot be strictly defined or meaningfully measured. Others supported either the 'principle' or at least the concept of "being cautious" in biosecurity decision making. Some even asserted that without an absolute assurance of zero risk, an organism should not be allowed to enter the country. However, others made a plea that the application of precaution must be accompanied by common sense.

Most submissions acknowledged that there is an obligation to get the best possible information and act on it. In some international conventions there is the precept that where doubt exists it is best to assume that the organism could be harmful. However, when a decision is made on that basis, the decision-making body should accept the responsibility of closing the knowledge gap as soon as possible with research.

The slogan "*prevention is cheaper and better than cure*" came through the answers to this and related questions. It has the virtue of being a very simple, strategic statement. Supporters argue that firm offshore controls, rigorous border scrutiny, prompt eradication of incursions near the entry point, and targeted surveillance, are likely to be cheaper than sustained long-term management of an established pest.

Question 17: What principles should be established to guide biosecurity risk-management decisions?

This question follows earlier ones (Q14, 15, 16) on establishing "levels of risk", and deals with what seems to be the single most difficult issue in the domain of biosecurity. This is because "risk" is hard to measure and is infinitely variable depending on the organism, its source, its biological characteristics, its ecological requirements and its latent period, that is, the time to elapse before it is seen to be a pest (which can be years or decades).

Risk management tools depend on good information and sound science. The analysis must be done systematically, even though there will often be imperfect information to analyse and to act on. It is hard to prove a negative impact. The most we can aim for is to reduce risk to as near zero as possible. A common sentiment was that New Zealand should look at risk pathways among its trading countries and minimise risk by knowing what might get to our boundaries before it actually arrives.

Question 23: What changes, if any, are required to the Biosecurity Act to improve its implementation?

This question is one of several dealing with biosecurity legislation. The Biosecurity Act (1993) and the Hazardous Substances and New Organisms (HSNO) Act (1996) are the two main Acts dealing with biosecurity. However, there are at least ten Acts, administered by different authorities, that have some relevance to biosecurity. The Acts do not complement each other perfectly, they overlap to some extent, they can be contradictory on some points, and they sometimes cause confusion.

One heartfelt plea was for the Biosecurity Act to be rigorously reviewed and substantially amended, the HSNO Act to be amended in specific areas, and for a wide-ranging review of the legislative framework for biosecurity to be undertaken to improve complementarity and to clarify roles and responsibilities.

Regional authorities are particularly concerned about the Biosecurity Act and other relevant legislation. They argue that they are constrained by the Regional Pest Management Strategy requirements of the Biosecurity Act to manage pests as single species whereas, in reality, they often need to manage multiple pests on a site basis.

This discussion over legislation and responsibilities introduces the distinction, and the possible strategic confusion, between biosecurity (at the borders) and pest management (of existing organisms).

Section 3 - Biosecurity Systems and Procedures

Top Questions: 34, 25, 26 and 35

Question 34: What principles should guide the decision on who should meet the cost of biosecurity programmes?

Question 35: How could initial responses to the incursions of harmful exotic organisms be funded?

Biosecurity is seen as a national issue with certain sectoral interests. The ultimate benefit is to the entire country, a public good, and therefore a core Government responsibility to safeguard long-term values. Only the Government has the statutory power or the resources to maintain a biosecurity.

Though the responsibility for maintaining a biosecurity service must rest with central Government, there is also a clear concept of cost recovery through levies and fees for specific services, and of penalties for those who knowingly breach biosecurity requirements.

Question 35 deals more specifically with the response to incursions. There is strong support from all quarters for a dedicated fund (by analogy with the Earthquake Commission Fund). It would permit rapid action as soon as a biosecurity breach was detected, because the proposed central agency could mobilise resources swiftly without going through separate departmental budgets. A summarising comment was that *“Unwanted organisms do not wait for Governments to make funding decisions”*. The revenues suggested above, in answers to *Question 34* could boost such a fund.

Question 25: How could the current multi-agency approach to biosecurity be improved?

Biosecurity is acknowledged as being multi-faceted and needing to involve many agencies, but there is a common plea for it to be made simpler operationally. Many members of the public consider that there should be a “one-stop-shop” to answer questions and provide reports. This approach is favoured also by many people who are involved in biosecurity in their professional duties, whether as guardians, managers or commercial traders.

Some submitters commented that every agency seems to assume that the others are “managing their patch”, but this assumption creates problems of accountability, communication, speed of action and co-ordination, even if it is true. These issues hark back to the call for a single national body that can be the leader and focal point for co-ordinated policies, action and information.

Question 26: What benefits could accrue from greater stakeholder involvement in biosecurity and how can these benefits be best obtained?

This is a surprisingly vexed question. Submitters recognised that, on the one hand, there are benefits in that stakeholders can contribute eyes and ears, disseminate information to members, contribute to workable policies and solutions, improve the operational perspective and help to develop a wider sense of ownership of biosecurity. On the other hand, the benefits of their vested interest can be counterbalanced by the risk of dominant influence and unrealistic expectations. Consultation with multiple stakeholders can cause delays and it can be difficult for some of them to participate effectively because of limited expertise and of people to participate.

The consensus is certainly that stakeholders should participate in consultation (and not just be asked to provide information) to benefit biosecurity programmes.

Section 4 - Biosecurity Operations

Top Questions: 54, 58 and 56

Question 54: What are the key factors for successful biosecurity education and awareness programmes?

Education emerges throughout many responses as a key to better understanding and compliance. A continuous programme of education and awareness is needed using every medium available, including pamphlets, magazines, trade journals, newspapers, radio and television. Television presentations should use a known and respected personality and face. Perhaps there could be a "Biosecurity Week", and the subject might be included in appropriate parts of the school curriculum.

Multi-lingual information about New Zealand's biosecurity requirements should be provided for travellers arriving by air and sea (yachts, cruise ships, merchant ships). Ideally, this information should be available at points of departure but, if it isn't, airlines and tour companies should be encouraged to distribute it to passengers in transit.

The biosecurity message needs constant repetition with a positive tenor to it, along the lines of answering the question "*What's in it for me?*". All New Zealanders need to "own" biosecurity rather than see it merely as enforced compliance. The fact that incoming New Zealanders are responsible for 40% of border infringements by passengers makes a powerful case for better education and awareness campaigns at home.

Question 56: How could New Zealand improve enforcement of its biosecurity requirements?

Education and awareness was seen as one important aspect of enforcement, but firm, consistent policing of regulations was seen as the other. Importers of risk material must be required to send it back immediately. Such actions, and any prosecutions and penalties imposed for non-compliance and biosecurity breaches, should be publicised. Penalties could be higher, including the instant fine. If certain import pathways are constantly in breach they should be closed until they have been audited and cleared again. Some caution was voiced over this, however, because it can encourage a riskier, covert trade instead.

Importers must be held accountable for the costs of cleaning up the consequences of their actions and for any compensation involved.

Question 58: What principles and criteria should apply to the management of established pests within New Zealand?

Both the distinction between biosecurity and pest management and the definition of a "pest" are raised in this question. Pest is a subjective term,

because one person's pest can be another's recreational asset, or even an economic resource (e.g. red deer). These are important management questions but, where there is agreement that an organism is unwanted, certain practical management considerations should apply.

Some sort of evaluation, preferably including detailed cost-benefit analysis, should precede any action against established pests so that resources are committed effectively. A consistent, national, co-ordinated approach is essential so that resources, responsibilities (national, regional, local) and the necessary co-operation can be brought to bear in a systematic way. Public health can be involved when the organism carries disease or attacks people directly (such as wasps). Health also becomes an issue when the very chemicals that are used to combat the nuisance are toxic to humans. Cultural issues can arise too, and local authorities need guidance on how to deal with them.

Where feasible, internal geographical barriers could be used to limit further spread of invaders. Scientific work should be commissioned that evaluates the likely colonising ability of the pest and which looks ahead at the potential impact of changes in climate or land-use.

These practical efforts should be supported by good, well-targeted publicity campaigns so that the population understands them and co-operates in a positive spirit.

9. Major biosecurity themes

The following six themes featured prominently in the submissions:

- accountability, leadership & co-ordination
- stakeholder participation
- education & awareness
- the environment
- Maori and biosecurity
- science & research

The first three themes are covered in Section 8 of this paper in the description of the responses to Questions 8 & 25 (for '*Accountability, leadership & co-ordination*'); Question 26 ('*Stakeholder participation*'); and Questions 54 & 56 ('*Education & awareness*'). The remaining three themes are covered below.

The environment

Improving the protection of the environment was advocated by a wide range of stakeholders, most notably in submissions from environmental interests, land-based industries, tourism and regional councils.

Representative comments were that:

- 'clean and green' is for all of us;
- our environment is an international tourism draw-card;
- personal health and the welfare of society draw on a healthy environment.

Some respondents considered that too much emphasis is placed on protecting primary production, rather than the natural environment. An alternative view expressed was that only by being economically viable through buoyant trade can we gain the resources to protect the environment. In other words, we need a generic protective shield for the nation as a whole. Several submissions suggested that what we should seek to protect in the natural environment is the *bio-uniqueness* of the country's flora and fauna, not just its diversity.

The consensus view is that there need be no combat between the various parties in the biosecurity effort because each supports the other's cause, be it commerce, health or the environment.

Maori and biosecurity

Respondents made many points on Maori issues in comments on a wide range of biosecurity topics, as well as on the questions specifically about Maori interests (*Q11, 12, 38*). These comments came from categories other than Maori, which indicates a keen awareness amongst submitters of the need to take account of the Maori perspective on matters of biosecurity.

Many submitters noted that Maori see an obligation to have their natural taonga (flora and fauna) protected in the spirit of the Treaty of Waitangi. Maori have a kaitiaki (guardianship) role and their particular voice must be heard in the process of consulting, formulating policy and implementing decisions. There is a view that Maori should be not only be consulted and informed at the level of iwi and hapu, but also represented at the highest level of the biosecurity central directorate. The comment that *"keeping out unwanted organisms is entirely consistent with Maori wishes and independent of belief systems"*, suggests that the basic issue is probably not in question, but that it is more a matter of inclusiveness.

Comments from regional councils make it clear that they see the need to incorporate Maori views in their biosecurity activities, but they want guidance from central government on how to do it. It is essential to have the basic understandings clearly in place from the national to the local level, because rapid actions can be seriously impeded if they have to be debated every time. Good communication, in a way acceptable to Maori, is crucial.

Whilst consultation with Maori is seen as important, there is the sympathetic view that Maori with skills and knowledge relevant to biosecurity could be overwhelmed with consultation. An important challenge in implementing a workable biosecurity strategy will be to balance consultation (and not just endlessly asking for information), with setting some agreed principles in place that everyone can act upon.

Science & Research

The need for good information and scientific support for a biosecurity programme is mentioned throughout the responses, not only in Q27 and Q28.

Biosecurity depends on being able to identify organisms, often at the border control points, without delay. Taxonomic skills in the Crown Research Institutes, universities and museums seem to have been run down in recent times and need to be re-examined. This taxonomic support base has to include trained specialists, shared databases, reference collections and modern taxonomic tools that can be available electronically at the border control points. Identification services should be provided at no charge for border control staff and also for stakeholders and the general public if they are to be encouraged to "own" biosecurity and to look out for unusual things.

Even dead organisms should be collected at border control and passed to a reference collection and database. These provide a pool of voucher specimens and of information that can be used for modelling potential invasion pathways. Such modelling is an aspect of applied ecology (in both productive and natural systems), which is a necessary discipline in managing established organisms, monitoring them and looking ahead.

Some submitters noted that a particular difficulty exists in marine science. The oceans present infinite pathways and entry points for natural migration on currents, and on incoming vessels. Both survey and taxonomy seem to be too deficient to support a biosecurity programme effectively. Much could probably be gained simply by routinely monitoring the waters in our ports to establish base line inventories against which to detect invaders.

The point was made repeatedly that good information, analysis and interpretation are needed to make good decisions. The nation's main science purchaser, the Foundation for Research, Science and Technology, is encouraged to recognise the public good nature of biosecurity in its funded programmes. Running in parallel with that is the need for the proposed central biosecurity agency to suggest and commission targeted research.

APPENDIX I: QUESTIONS POSED IN THE *ISSUES PAPER*.

Section 1: Strategic Directions and Objectives

Question 1: What is the range of values and interests protected by New Zealand's biosecurity programme?

Question 2: How do these values and interests interconnect?

Question 3: What factors should be incorporated into a New Zealand definition of biosecurity?

Question 4: Who should be responsible for determining overarching objectives for New Zealand's biosecurity programme?

Question 5: What factors should be considered when overarching objectives are determined?

Question 6: How can an appropriate link be established between biosecurity objectives and the range of values and interests being protected?

Question 7: What factors should be considered when determining priorities for action across the wider biosecurity programme?

Question 8: What factors should be considered in determining appropriate leadership arrangements for New Zealand's biosecurity programme?

Question 9: What would be an appropriate emphasis to place on pre-border, border and post-border biosecurity protection in the marine environment?

Question 10: What are the critical gaps in marine biosecurity and how could these be addressed?

Question 11: How does the Treaty of Waitangi relate to biosecurity and the development of a biosecurity strategy?

Question 12: How could Maori participation in biosecurity decision-making be improved?

Question 13: To what extent should New Zealand seek to enhance biosecurity partnership arrangements with other countries?

Section 2: Biosecurity Principles and Policies

Question 14: Since zero biosecurity risk is unattainable, what level of biosecurity risk should New Zealand set?

Question 15: How could New Zealand's appropriate biosecurity protection statement cater for different levels of risk?

Question 16: How should New Zealand express its appropriate level of biosecurity protection?

Question 17: What principles should be established to guide biosecurity risk-management decisions?

Question 18: How could precaution be applied in biosecurity decision-making particularly when there is a lack of information on risks to native flora and fauna?

Question 19: How could New Zealand ensure that there is an appropriate balance between biosecurity protection and the facilitation of trade and travel?

Question 20: How should New Zealand ensure that its biosecurity interests are appropriately incorporated into international trade and environmental agreements?

Question 21: How should New Zealand ensure that its international obligations are appropriately integrated into domestic biosecurity decisions?

Question 22: What changes, if any, should be made to the Biosecurity Act 1993 and/or the Hazardous Substances and New Organisms Act 1996, to create a seamless biosecurity legislative interface, and ensure compatibility with other legislation?

Question 23: What changes, if any, are required to the Biosecurity Act to improve its implementation?

Question 24: What changes, if any, are required to the HSNO Act to improve its implementation?

Section 3: Biosecurity Systems and Procedures

Question 25: How could the current multi-agency approach to biosecurity be improved?

Question 26: What benefits could accrue from greater stakeholder involvement in biosecurity and how can these benefits be best obtained?

Question 27: What actions are required to improve the overall prioritisation and co-ordination of biosecurity-related science and research?

Question 28: What actions are required to improve integration of science and research into biosecurity policy and operational decisions?

Question 29: What areas of the biosecurity programme would benefit from the development of a generic or specific guiding policy and why?

Question 30: What areas of the biosecurity programme would benefit from the development of a specific risk management standard and why?

Question 31: Do you consider there is merit in the proposal to review all biosecurity standards and procedures at the border to ensure comprehensive management of risks to indigenous flora and fauna, and if so, how should this be carried out?

Question 32: What principles and objectives should guide decisions about the boundaries between national and regional pest management?

Question 34: What principles should guide the decision on who should meet the cost of biosecurity programmes?

Question 35: How could initial responses to the incursions of harmful exotic organisms be funded?

Question 36: What principles should guide decisions on whether individual biosecurity services should be made contestable activities?

Question 37: What factors should be considered in determining appropriate institutional arrangements for New Zealand's biosecurity programme?

Question 38: How could biosecurity structures, legislation and processes be made more inclusive of Maori?

Section 4: Biosecurity Operations

Question 39: What constraining factors do you see with offshore risk management?

Question 40: What new offshore risk management measures do you favour?

Question 41: How could the biosecurity strategy be better integrated with New Zealand's overall border management strategies?

Question 42: How could New Zealand achieve better stakeholder engagement in biosecurity risk management at the border?

Question 43: What are the constraints and limitations of greater stakeholder engagement?

Question 44: What measures or factors need to be considered in order to improve passenger processing?

Question 45: What actions are required to improve the management of risks to New Zealand's marine environment from ballast water and hull de-fouling?

Question 46: What factor should determine whether an issue is appropriately addressed by the biosecurity programme or as part of core public health programmes?

Question 47: How could New Zealand improve the management of human health risks at the border?

Question 48: What additional training should be provided to biosecurity inspectors at the border?

Question 49: What other enhancements would improve biosecurity border management?

Question 50: How should the relative balance between investment in biosecurity surveillance as compared to border protection be decided?

Question 51: What actions are required to ensure that biosecurity surveillance programmes deliver timely and quality information on new organism incursions, and the internal movement of established organisms?

Question 52: What principles and criteria should be used to determine whether to respond to a new organism incursion?

Question 53: What generic procedures should be followed when responding to a new organism incursion?

Question 54: What are the key factors for successful biosecurity education and awareness programmes?

Question 55: Which aspects of biosecurity would benefit most from a raised profile?

Question 56: How could New Zealand improve enforcement of its biosecurity requirements?

Question 57: What role should New Zealand play in maintaining the biosecurity of its trading partners?

Question 58: What principles and criteria should apply to the management of established pests within New Zealand?

Question 59: Who should take responsibility for developing and enforcing "internal" biosecurity controls?

Question 60: Should regional councils be provided with more flexibility in the powers available to them for managing harmful pests and, if so, what specific changes are required?