Agricultural and Horticultural Products Regulatory Review Economic Analysis Issues Paper

The priority for the Review is to identify practical solutions that streamline the approval pathway used by the manufacturers, importers, sellers and users of agricultural and horticultural products.

The Review will also explore big picture options regarding why and how New Zealand regulates these products under the *Agricultural Compounds and Veterinary Medicines Act 1997* and *Hazardous Substances and New Organisms Act 1996*. Taking a first principles perspective is consistent with the terms of reference for the Review, which noted it would understand what problem is being addressed by the regulation and how the current intervention relates to an underpinning market failure.

The purpose of this paper is to:

- set out how we are going to approach economic analysis for the Review
- generate targeted feedback by asking specific questions of stakeholders
- gain further relevant information

The overall intent is to encourage stakeholders to step back and ask some big picture questions that go beyond the current approval pathway. While this discussion may generate a range of differing views it is an important conversation to have. Moreover, the process will not detract from the priority for the Review of addressing issues with the current system and may indeed assist with identifying practical solutions.

The paper explores a range of issues including market definition, risks, market failure, problem definition, policy options and costs and benefits. While each section includes specific questions, stakeholders should feel free to comment on whatever they think is relevant, within the scope of the Review.

Relevant Markets

A market is a place where buyers and sellers exchange goods and services.

Identifying markets relevant to the scope of the Review, will assist us to estimate the costs and benefits of the current arrangements and any options for change.

The basic market is assumed to be the industry that manufactures, imports, sells and uses agricultural and horticultural products. Downstream markets are also important, given the economic linkages with the primary production sector.

The information we intend to gather on markets for the Review includes:

- supply – revenue, jobs, products, suppliers, major players, concentration, competition
- demand for agricultural and horticultural products
- key industry features, such as reliance of scale, new chemistry vs generic, barriers to entry, role of peak industry bodies, technological impacts, protection of IP
- market connections, trends, outlook, key opportunities and challenges

Questions

1. How would you define the relevant market for the Review, given its terms of reference?
2. Please provide your views and any information relevant to the market definition and your understanding of it.

Risks

While agricultural and horticultural products are intended to provide benefit, their use can also cause harm. Any interventions designed to reduce the risk of harm will place limits on the behaviours of manufacturers, importers, sellers and users. This creates a trade-off between risk reduction and commercial and personal freedoms.

In the context of the Review, this trade-off means reducing access and/imposing risk management requirements on agricultural and horticultural products in return for reduced harm. These harms include to:

- human health
- export trade in primary products
- animal welfare and plant health
- environmental damage
- biosecurity

Though often described in numeric terms, such as a score for the combination of a likelihood and consequence, risk is a subjective and complex concept that is often expressed statistically as a probability distribution of possible outcomes.

Because of the compliance costs, it is undesirable – and in many cases, impossible – to attempt to reduce all risks to zero.

We can also make a distinction between the risk inherent in a product and the management of this product risk. The management of risk is usually most efficiently done by the party who is best positioned to understand it.

The overall approach to managing risk can be considered on a spectrum between outcomes/principles-based through tor prescriptive. The former allows industry to find the least-cost solution to achieving the results specified by government through regulation. This approach, however, tends to be more subjective and requires greater trust. The lack of clarity can also lead to industry spending extensive resources on understanding what is expected of it.

While a prescriptive approach can provide for an objective understanding of what is expected of regulated parties, it can also limit innovation and increase compliance cost.

Questions

3. Are the the risks currently managed under the elements of the *Agricultural Compounds and Veterinary Medicines Act 1997* and *Hazardous Substances and New Organisms Act 1996* relevant to the Review, the right risks?
4. How significant do you believe these risks are and how can they be estimated?
5. Are there any other risks, not considered, that should be managed?
6. Does the current process for the approval pathway make the right trade-off between enabling access and managing risks, and how do we make this assessment?
7. Where does the current approach to managing risk fall in terms of being prescriptive or outcomes/principles based, and is this appropriate?

Market Failure

In recent decades, governments around the world have promoted competition and liberalisation of economies to ensure, by and large, that our limited resources are directed toward their most productive use. Through the interaction of supply and demand, and the taking of commercial risks by the owners of capital, overall community welfare is expected to be enhanced.

There are, however, instances where this may not be the case. Examples of such market failures include:

- Asymmetric information – markets can be ineffective if one party has significantly more information than the other. It is a particular problem if a buyer or seller uses this to conceal important information. This can be addressed by requiring information disclosures, such as found on food labels.
- Externalities – those who produce or consume a good or service can generate costs and benefits that fall on third parties. These externalities can be positive (eg reduced transmission of infectious diseases from vaccinations) or negative (eg pollution).

- Market power – abuse of market power occurs when a single or small number of suppliers uses the absence of effective competition to raise prices or reduce services by limiting supply.
- Public good – some goods have the special characteristic that their use does not reduce availability for others and/or it is not possible or practical to prevent another party from also using them. Examples of a public good include national defence and lighthouses.

In some cases, there can be more than one relevant market failure.

Though the Review is dealing with regulation that is already in place, it can be helpful to apply some counterfactual analysis – or "what if" thinking. This can identify if the most basic problem in need of a solution is different from that addressed by the current regulation.

For instance, the fundamental problem driving government intervention may be the assumption that people will act irresponsibly, either knowingly or, more likely, unknowingly. Or it could simply be assumed that the risks are too significant to even contemplate an alternative to regulation.

Questions

8. What are the relevant market failures addressed by the approval pathway for agricultural and horticultural products?
9. How do these match the risks managed by the pathway?
10. What do you believe is the fundamental problem that government regulation of the approval pathway for agricultural and horticultural products seeks to address?
11. How would you define that problem?

Policy Options

The Review is an opportunity to also consider the best tool to address the problem. Like the problem definition, it can be helpful to consider these tools by asking what would a good solution look like, free of history and the existing regulatory arrangements?

Regulation or another policy tool?

Policy makers have a range of options available for achieving policy objectives. These include:

- *Doing nothing* – in some cases the most cost-effective option will be to do nothing, including, for example, when government action is unlikely to change behaviour (or would make it worse), or where the costs of a policy are expected to outweigh the benefits.
- *Information, education and advertising campaigns* – governments can influence the behaviour of individuals and businesses by providing information and advice. The Register of Foreign Ownership of Agricultural Land is an example of governments providing facts to increase transparency and help dispel some myths about foreign investment in agriculture.
- *Financial incentives* – taxes, penalties and government payments influence the behaviour of individuals and businesses. An example is governments buying environmental services (such as native vegetation retention and management) from farmers.
- *Self-regulation, voluntary codes of conduct* – industry formulates rules, standards and codes of conduct, and is responsible for enforcing them. These 'light handed' regulatory options can have lower costs and offer more flexibility than government regulation.
- *Co-regulation* – this is a hybrid form of regulation in which industry typically develops and administers particular codes, standards or rules, and the government provides formal legislative backing to enable the arrangements to be enforced.
- *Regulation* – governments prescribe the behaviour it expects from individuals and/or businesses by setting the rules.

Factors that are relevant to the choice of policy tool include: the extent of risk, the severity of the problem and the need for flexibility and certainty.

The Australian Productivity Commission has listed types of tools available to address problems across the agricultural sector. As shown in the table below, regulation is one of several options that could be considered.[1]

When comparing different policy tools it is important to consider the risk issues discussed above, especially who would be best placed to understand and manage a risk.

It is also important to consider the level of change in the operating environment for agricultural and horticultural products, both in recent years and looking forward.

For example, it's possible that the risks associated with the fundamental problem are different to what they were when the regulation was first introduced. Technological

developments and new products can cause existing regulation to become out of date or to become an unanticipated obstacle to innovation, higher productivity or social good.

Some of the alternative policy tools require a level of industry maturity and an acute understanding of supply chain expectations. In recent decades, the expectations and incentives on primary producers in New Zealand to manage certain risks (eg residue levels) have increased. We are aware industry has put in place initiatives and standards designed to secure their social license and avoid damage to their export reputation, within a highly regulated, highly structured global trading system.

Questions

12. In a theoretical situation, what would be the most appropriate tools for addressing the fundamental problem from Question 10 in the market for agricultural and horticultural products (the market here can be industry as a whole or a particular segment)?
13. In terms of the operating environment for agricultural and horticultural products, what recent and future changes do we need to be aware of?

Cost and benefits

The Review will be assessing the costs and benefits of both the current regulation and alternative options. The level of qualitative and quantitative analysis will depend on the information available to the Review, within its current timeframe.

As noted in the terms of reference, the Review will also consider the distribution of the costs and benefits, including how the financial costs of a regulation are paid for and by whom.

Costs

Costs include financial, economic, environmental and societal.

For the regulator, there is the financial cost of administrating the regulation. For industry, there are administrative costs (eg paperwork time, generating data from trials, reporting requirements) and the cost of setting up a system of compliance (eg investment in ICT, training).

The economic costs are the broader, distortionary impact of regulation on the efficient operation of markets and the flow-on economic impacts to the economy (eg income levels, jobs).

Regulation, by intention, impacts the supply and demand of agricultural and horticultural products. This can result in a loss of competitiveness on the part of the primary producers. In addition, businesses involved in the manufacture of products and those downstream may be less inclined to invest and innovate. Regulation can also be a barrier to growth and entry into the market, such as when a firm may be discouraged from importing a new product by the time and resources it takes to gain approval.

Benefits

Policy tools such as regulation can provide confidence, in both domestic and international markets, that risks are being managed. This means avoiding adverse events that impact human health, including food safety, animal welfare, the environment and the export and local market for primary products.

There are examples both in New Zealand (eg Dicyandiamide and melamine in dairy products) and overseas (eg horse meat substitution) of such events and their financial, economic and social costs.

While it is possible to measure the impact of isolated events, it may be difficult to estimate the ongoing benefits of how the current approval pathway for agricultural and horticultural products in New Zealand avoids harm.

Questions

14. What are the specific financial costs of the current approval pathway?
15. How do these costs compare with pathways overseas?
16. Can you provide examples of the flow-on economic costs of the current approval pathway?
17. Can you provide examples of the benefits of the current approval pathway?
18. What is the distribution of costs and benefits, including the financial costs of the current regulation, and can this be improved?
19. Please provide any evidence, directly or by reference, to support your views.