

## Evaluating the implementation of declared pest policies – new ideas for enhancing public value

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**Summary** Effective systems for managing declared pests improve the private economy and national competitiveness, resulting in enhanced public value. Due to the intangible, complex and shifting nature of public value for strategic control of declared pests, a high level of engagement with stakeholders will always be required to bring insight and intelligence to policy development and implementation. In 2015 a feasibility study for evaluating the implementation of declared pest policies in South Australia was prepared, using survey and interview data from four stakeholder groups: policy writers; regional natural resources staff; community representatives on regional Natural Resources Management Boards; and executives in relevant state agencies. Participating stakeholders suggested sources of data for measuring inputs such as: compliance work; protection orders; inspections; surveillance; formal communication with landholders; human resources; and allocated budgets. Key drivers of change for public value outcomes were analysed, including: expectations for disciplined and consistent enforcement to address non-compliance; variation in political will for each invasive animal and weed; declining budgets; and opportunities to use new technologies to improve efficiency. To improve evaluation systems, recommendations were made for: managing spatial data; communicating the delivery model for implementing policies; further research on social drivers and dynamics; and measuring inputs at the regional level.

**Keywords** Public value, declared pests, policy, South Australia.

### INTRODUCTION

All landholders have a legal responsibility to control declared animals and plants to reduce threats to primary industries, the natural environment and public safety. However these threats are always changing. An evaluation system will help ensure public value is improved and control programs, education, enforcement and compliance are guided by effective policies.

In 2014–15 the eight regional Natural Resources Management (NRM) boards in South Australia

collectively invested more than \$8 million to coordinate management programs for invasive animals and weeds. NRM boards have the responsibility of setting regional priorities for management programs and engaging with landholders to achieve compliance under the *Natural Resources Management Act 2004* (Government of South Australia 2012). The Department of Environment, Water and Natural Resources (DEWNR) manages control programs, education, enforcement and compliance, delivering the operational activities for NRM boards. Biosecurity SA, in Primary Industries and Regions South Australia (PIRSA) leads the development of declared animal and plant policies and provides technical advice for management programs.

### METHODS

A feasibility study for evaluating the implementation of declared pest policies in South Australia was prepared. The three objectives of the study were to: (i) provide recommendations on how to evaluate the implementation of policies; (ii) provide recommendations on engaging with a broader range of stakeholders to design an evaluation system; and (iii) examine key drivers of change for public value outcomes in the management of declared animals and plants. These drivers are analysing political, economic, social, technological, environmental and legal (PESTEL) trends, factors and external dynamics. PESTEL analysis is a business tool used to identify factors that have a combined effect on the key drivers of change for an industry, market or sector (Johnson *et al.* 2005).

Survey and interview data were collected from eighteen participants from four stakeholder groups: policy writers; regional natural resources staff; community representatives on regional Natural Resources Management Boards and executives in relevant state agencies. Participants completed quantitative attitudinal surveys and were interviewed using a semi-structured format which allowed each individual to elaborate on topics of particular interest to them.

The recommendations in the study were developed by the author drawing on survey and interview data, existing plans and reports, and published literature

on evaluation, stakeholder engagement and business strategy.

## RESULTS AND DISCUSSION

**How to evaluate** The most common evaluation topics mentioned by participants were (i) input measures, (ii) spatial data, (iii) delivery of regional NRM plans, (iv) outcomes and results, and (v) community engagement. Across the participating stakeholder groups individuals suggested key performance areas for:

- measuring inputs at the regional level (data sources include compliance work, protection orders, inspections, surveillance, formal communication with landholders, human resources and allocated budgets);
- the density and distribution of a species, or group of species, over time;
- delivery of regional NRM plans, including uptake and delivery of pest management plans, and information on assets being protected;
- outcomes and results, such as the actual impacts resulting from management and control activities (before and after monitoring); and
- community engagement, including number of extension activities.

Some of the unique ideas from individuals were also highly valuable in developing recommendations for an evaluation system, including:

- clearly describe and communicate the delivery model for implementing policies;
- use social mapping – a visual method of exploring social dynamics of a community – to help understand how landholders engage and what's important to them;
- measure all activities (across multiple stakeholder groups) for the recently declared plants – to establish 'baseline data' for inputs; and
- stories and case studies that explain benefits and costs in a qualitative way can be more important than detailed, economic cost-benefit analysis.

**Engaging a broader range of stakeholders** Policy writers, regional natural resources staff; members of regional Natural Resources Management Boards and executives in relevant state agencies are influential in evaluating the implementation of declared pest policies. Nonetheless there are other stakeholders with a high level of interest and influence, particularly individual landholders, industry peak bodies and local government. To design an effective evaluation system these stakeholders should be invited to participate in regional evaluation workshops or via direct consultation for state level peak bodies. Emphasis must be placed on stakeholder analysis and engagement, col-

laborative approaches, and using holistic rather than linear thinking because the management of declared pests can be inherently complex, unpredictable and open-ended.

**Key drivers of change for public value outcomes** The survey results for PESTEL trends, factors and dynamics revealed that participants collectively identified 'expectations for disciplined and consistent enforcement to address non-compliance' and 'opportunities to use new technologies to improve efficiency' as the two most significant drivers of change for public value outcomes in the management of declared pests. However, semi-structured interviews with each participant provided better insight and depth to help develop the PESTEL analysis presented in Figure 1 below.

## CONCLUSION

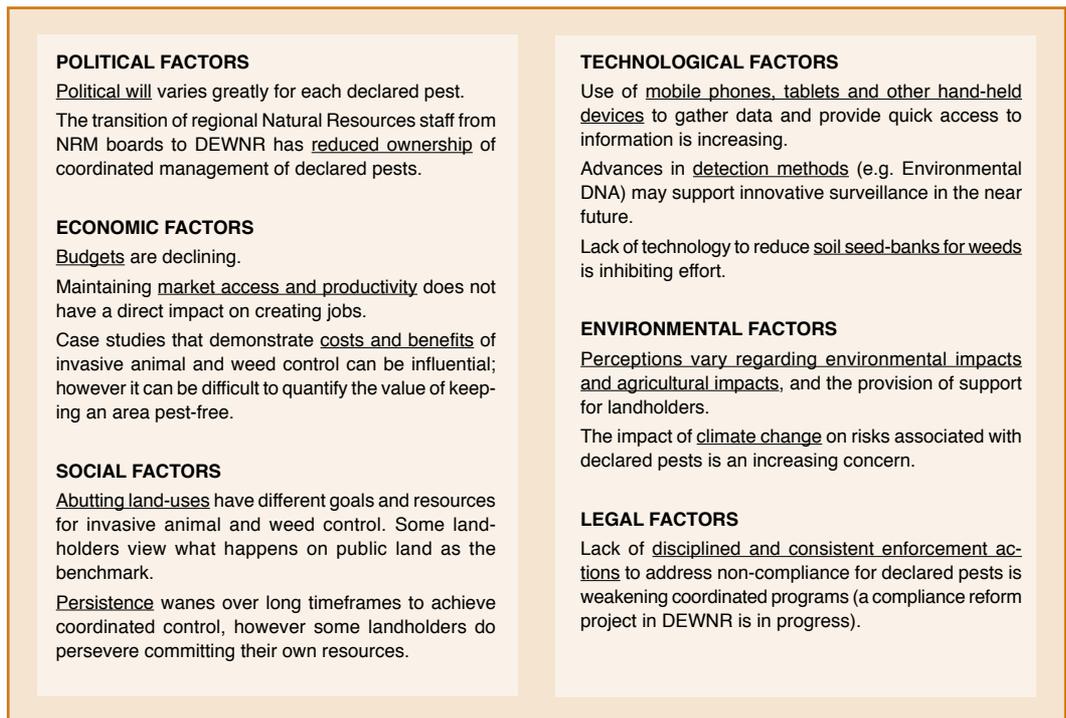
The recommendations in the feasibility study address: key performance areas for input measures and spatial data; line-of-sight reporting for relevant regional and state level plans; research on social drivers and dynamics; stakeholder engagement targeting landholders, local government and industry; and an agreed delivery model. Due to the intangible, intricate and shifting nature of public value for strategic management of declared pests, a high level of engagement with stakeholders is required to bring insight and intelligence to policy development and implementation. The ongoing challenge will be to interpret evaluation data to update declared pest policies, while checking that performance measures are still relevant. If key drivers of change for public value outcomes reveal a significant shift in political, economic, social, technological, environmental or legal trends, factors and dynamics the evaluation system should be re-assessed.

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**Figure 1.** PESTEL analysis examining key drivers of change for public value outcomes in the management of declared pests.