

## Engaging the community in biosecurity issues

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**Abstract.** Protecting the economy, environment and people's lifestyles from pests, weeds and diseases (i.e. biosecurity) is a costly, but important endeavour. Biosecurity is increasingly acknowledged as the responsibility of not only government and industry, but also the community. The Engaging in Biosecurity (EiB) project developed guidelines to engage the community in biosecurity based on learnings from six profiling studies and four trial implementation projects. A theoretical framework was developed to help engagement practitioners engage communities effectively by developing partnerships in formation, design and implementation of biosecurity engagement projects. The framework also involves a monitoring and evaluation component to ensure continual improvement of biosecurity engagement projects. It enables early identification of, and response to, issues and new opportunities. This paper provides an overview of the EiB project's theoretical framework, including the M&E component, with real examples.

**Keywords:** Public participation, monitoring and evaluation, pest and disease management, engagement principles.

Substantial investment from government, industry and research bodies has led to significant progress in understanding pest behaviour and control, as well as surveillance, detection and eradication techniques. To be successful, however, these operational activities need concurrent changes in community awareness, decision-making and behaviour.

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) developed a proposed national framework for engaging the community about biosecurity issues through the Engaging in Biosecurity (EiB) project. A key component of the framework is a set of biosecurity engagement guidelines to provide direction and practical tips for effective biosecurity engagement. This paper provides a brief overview of the key elements in the guidelines.

Community engagement is typically defined along a continuum of participation, ranging from passive receipt of information (brochures, manuals and web pages), consultation, involvement, partnerships, through to self-empowered communities that independently initiate actions.

The approach outlined in the guidelines acknowledges the wide range of circumstances in which biosecurity engagement operates in terms of local context, available resources and diverse stakeholders. It offers a best practice approach to strategically plan and implement biosecurity engagement programs and projects, rather than a 'quick-fix recipe'.

The Office of the Chief Plant Protection Officer, within the Australian Government Department of Agriculture, Fisheries and Forestry, commissioned this work.

### Methods

During 2009, ABARES social scientists profiled six existing biosecurity engagement programs to identify what hinders and facilitates effective community engagement on biosecurity issues in different contexts. During 2010 and 2011, four biosecurity engagement trials were conducted focusing on either, monitoring and evaluating biosecurity engagement programs, or involving volunteers to help address biosecurity issues. Data were analysed using the proprietary qualitative data analysis tool NVivo.

To develop guidelines to monitor and evaluate (M&E) biosecurity engagement programs, an approach called monitoring, evaluation, reporting and improvement (MERI) was adjusted to fit the biosecurity engagement context.

### Findings and discussion

#### **Basic principles for biosecurity engagement**

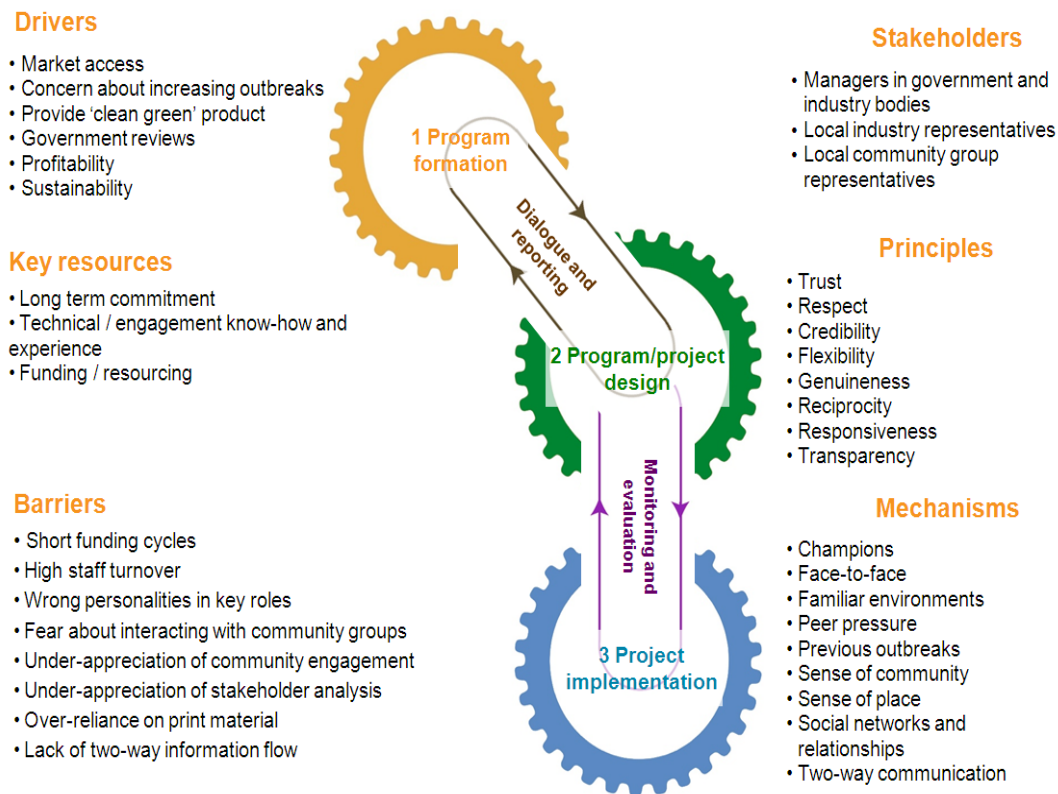
A key finding was that biosecurity engagement programs need a high level of flexibility and adaptive management in order to respond to community needs and expectations. For engagement programs to be effective they need feedback loops to enable responsiveness to target and stakeholder groups and to ensure the program stays on track.

Engagement programs involve a range of decision-making processes at various levels and different stages. Different representatives of stakeholder agencies need to be engaged at different stages to involve the best people for the decisions at hand.

### Biosecurity engagement 'engine'

The biosecurity engagement engine provides a metaphor for an ideal engagement process. Three cogged wheels represent different stages of an engagement program. Each wheel influences and provides feedback to the other wheels, so they are constantly being moved to action by the others. The biosecurity engagement engine illustrates that engagement programs need to involve responsive processes to realise their full potential.

**Figure 1. Biosecurity engagement engine**



The length of each stage is variable and could overlap. The stages are:

- *Formation*—determining program goals, management and resourcing. This includes problem scoping in collaboration with stakeholders, for example, key issues, main pathways through which the pest could spread and ways to address risks. The decisions required for this stage would ideally involve people who have authority to allocate resources and have an overview of how the planned venture would relate to other programs and organisational goals.
- *Design*—identifying key target groups for addressing biosecurity risks and practical, effective ways to engage them. It requires insight into target group attitudes, motivations and capacities by gathering baseline information and developing an engagement strategy based on this information. People with a good understanding of what messages and engagement activities would work best with target groups at grassroots level need to be involved.
- *Implementation*—interacting with target groups to reduce biosecurity risks including responding to new challenges and opportunities. This stage might require collaboration with intermediaries or representatives of target groups; for communities intermediaries could be key respected figures, for farmers they could be on-farm consultants with whom farmers have an established relationship.

Monitoring and evaluation stages provide feedback from the implementation and design stages to allow for adaptive program management. The engagement strategy is regularly updated based on monitoring information that provides insight into how target group engagement could be strengthened. Dialogue and reporting ensure communication of 'big picture' information between stakeholders during design and formation.

### **Considerations when engaging stakeholders or target groups**

When engaging any stakeholders or target groups the following need to be considered:

- *The goal of engagement (Why?)*—to be clear on what is needed from the stakeholder/target group, i.e. requesting partnership, feedback, behavioural change or raising awareness.
- *The messenger (Who?)*—to channel information through the most appropriate person or organisation that has the respect and trust of the stakeholder or target group. This might require intermediaries to be involved.
- *The message (What?)*—tailor messages for each stakeholder or target group based on their needs, i.e. 'what's in it for me?' and demonstrate that their support will make a difference.
- *The timing (When?)*—engage people at a time convenient for them and make the engagement time-effective. For example, meetings could be held in conjunction with other events that involve the relevant stakeholder or target groups.
- *The tools (How?)*—identify engagement activities that would resonate with the stakeholder or target group; for example, a 'shed meeting' might be better for farmers than a formal meeting. Face-to-face contact works best and be careful not to rely solely on printed material.

### **Need for baseline information**

It is important to understand target and stakeholder groups to tailor the engagement to their needs and determine their need for capacity building. Gathering baseline information provides insight into target and stakeholder groups':

- *Knowledge and skills ('know how')*—awareness, recognition and understanding of the science and management practices that relate to particular pests, as well as the goals, opportunities and limitations of the engagement process.
- *Motivation ('want to')*—commitment and aspirations of individuals, communities and agencies to address pest problems, which is strongly related to their personal and collective priorities.
- *Resources ('can do')*—capacity to engage in terms of finances, time and staff.

### **Social enablers**

The research identified several key 'social enablers' (i.e. how the engager and target groups relate to each other or the cause) that contribute to the engagement program's success. They include:

- *Trust*—to promote sharing, openness and understanding. Factors that could strengthen trust include long-term relationships, responsiveness, commitment and social interactions. Factors undermining trust include incorrect advice, lack of transparency, and staff changes.
- *Responsiveness*—to respond to stakeholder and target group needs. It demonstrates that their support and involvement are valued and that the cause is of high priority.
- *Community 'champions'*—people who have the ability to encourage and inspire others to support a cause. They can also contribute to developing trust and credibility between groups. Champions often have the trust and 'speak the language' of the target group.
- *'Piggyback' biosecurity messages*—biosecurity may not be 'on people's radar', especially if no threat is imminent. Biosecurity messages could be communicated by linking them to other more interesting activities or issues.
- *Sense of community/place*—could provide a trigger for people to become involved. For example, if residents view horticultural growers as an important part of the wider regional society and economy, they may be motivated to protect the industry.
- *Convenience*—timing, format and venue of engagement activities should be tailored for intended participants. 'Doing the right thing' should be as easy as possible for target groups.
- *Commitment*—long-term commitment from government, industry and community groups is necessary for lasting change, despite setbacks or challenges. Commitment is demonstrated through provision of tangible resources such as funding, staff and other forms of support, as well as intangible assets such as sustained focus and dedication.
- *Accountability*—confidence is engendered when partners are willing to accept responsibility and account for their actions rather than avoid responsibility.

### ***A suggested approach to develop a biosecurity engagement program***

The principles described below have been modified from the MERI approach and provide a good foundation for developing a monitoring and evaluation component. The MERI framework has been condensed to allow for the short timeframes that are typical of most current biosecurity engagement programs.

The framework requires development of a 'theory of change' identifying the 'cause and effect' relationship between (i) the program objective (*what would success look like?*) and (ii) engagement activities. Once the objective and activities have been identified there is a need to:

- *Analyse activities*—articulate what outcomes each activity sets out to deliver and whether the combined outcomes of the different activities will lead to the program objective being achieved. Consider how planned activities could be strengthened.
- *Articulate assumptions*—the link between an activity and its expected outcome is normally based on assumptions. If assumptions are articulated, engagement activities can be fine-tuned and the strategy can be adjusted if necessary. For example, if the engagement activity is to do a letterbox drop of pamphlets asking householders to maintain their fruit trees, there is an assumption that householders will read and respond to the information.

### ***Key principles for developing biosecurity engagement program monitoring and evaluation***

The distinction between 'monitoring' and 'evaluation' (M&E) is often blurred as each could overlap in several ways. For the purpose of this document monitoring and evaluation mean:

- *Monitoring* is a process that keeps track of the progress of an engagement strategy against what it intends to achieve, including whether engagement activities are having the intended effect; how they could be improved and whether there are unintended outcomes. The audience for monitoring findings is normally the engagement program team.
- *Evaluation* is a snapshot of the impact of activities and identifies the extent to which objectives have been achieved. It involves making judgements about how 'good' an intervention has been at achieving outcomes. It normally involves formal reporting for external stakeholders, such as funders and other interested parties, toward the end of the project.

M&E as a distinct process generally does not feature strongly in biosecurity engagement programs unless needed to fulfil contractual obligations.

As adaptive management is key to effective engagement it is important to purposefully gather data to inform decision making with evidence about what works and does not. It is fundamental that the information gathered is meaningful to the project team. A biosecurity engagement program's M&E component could therefore be rather 'home-grown' and evolving in order to best meet the engagement program team's needs.

Principles that relate to developing a *monitoring* process within the context of an established 'theory of change' are:

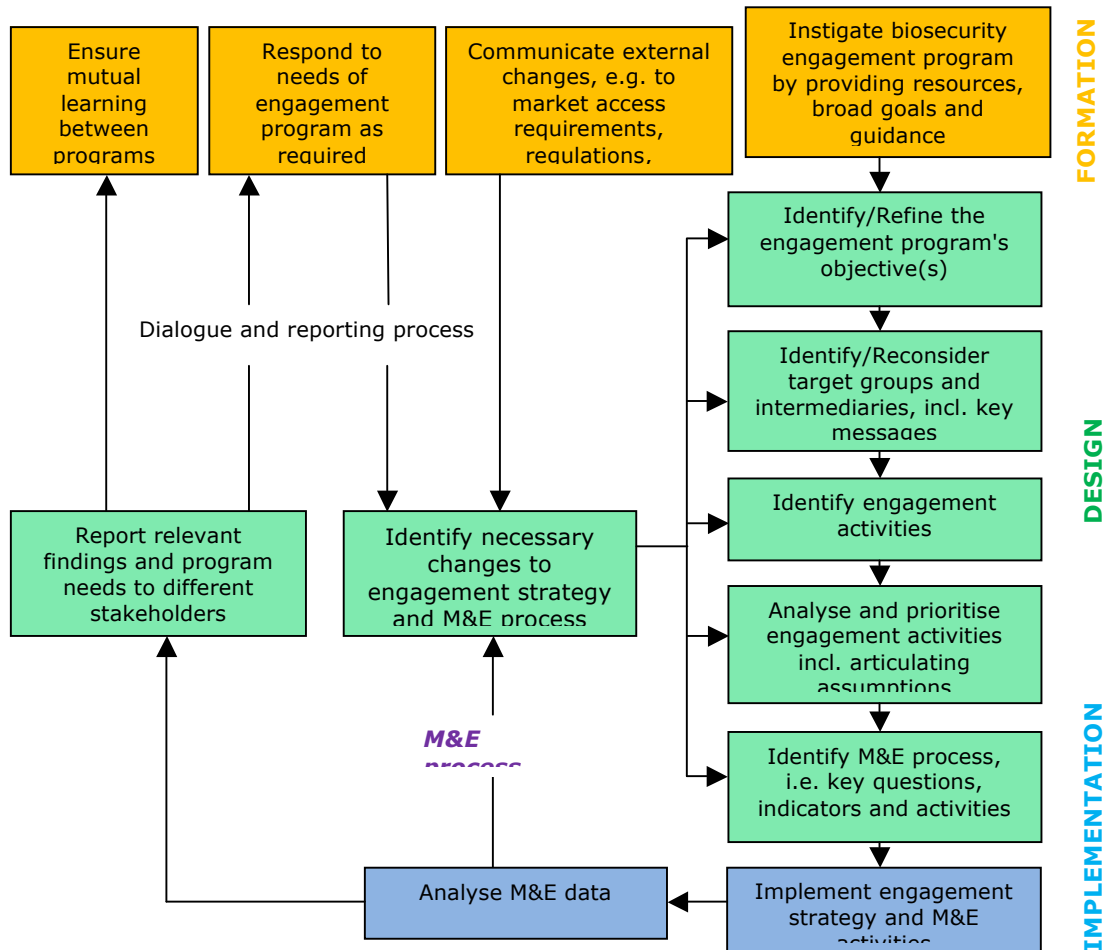
- *Define the focus of the monitoring activities*—develop a key monitoring question with a number of sub-questions that capture the information needs of the engagement program team to ensure the program stays on track.
- *Identify indicators of expected intermediate outcomes*—determine what signs or indicators will provide evidence of progress. The medium-term results of the program's implementation lifetime (intermediate outcomes) are best suited, that is, signs that people are becoming more engaged. If the program is not on track at this point it is not too late to change course. Indicators could be (i) tangible—people are starting to 'do the right thing' such as strengthening on-farm hygiene or reporting suspected pests, or (ii) intangible—positive changes in target group awareness and attitude toward 'doing the right thing'. The outcomes identified for each activity will provide clues to what would be suitable indicators.

The principle for designing an *evaluation* approach is similar to that of monitoring; the evaluation needs to be focused by identifying key evaluation questions and determining what indicators will provide evidence of achievement. Again, both tangible and intangible evidence need to be identified. One would think that the simplest way to conduct an evaluation would be to demonstrate that x per cent of the target group is 'doing the right thing'. However, the opportunity to do the right thing might not have presented itself, especially in the biosecurity context. For example, if the community is asked to report sightings of a certain pest and the

pest is present in very low numbers, numbers reported would consequently be very low. The community's 'readiness' to report also needs to be determined by, for example, assessing its awareness of the pest, what to look for and how to report sightings.

Figure 2 gives an overview of how the suggested processes for developing and implementing a biosecurity engagement program fit together.

**Figure 2. Overview of processes involved in biosecurity engagement engine**



**Conclusions**

Biosecurity is a costly and complex issue. Addressing it optimally requires shared responsibility between stakeholders, including government, industry and the community. The Engaging in Biosecurity project found that effective community engagement with biosecurity issues needs a tailored approach based on target and stakeholder group needs, aspirations and capabilities, and by working through social enablers, such as trust and responsiveness. Well-designed monitoring and evaluation processes tailored to engagement team needs could ensure adaptive program management, a vital element to biosecurity engagement programs.