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Controlling the Sale of Invasive Garden Plants: Why Voluntary Measures Alone Fail

Discussion Paper

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Controlling the Sale of Invasive Garden Plants: Why Voluntary Measures Alone Fail

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Executive Summary

The majority of introduced plant species now established in the Australian environment are escaped garden plants. These escapees contribute to the estimated \$4 billion annual cost of weeds in agricultural ecosystems alone.

The revision of the *National Weeds Strategy* presents governments with the opportunity to design and implement an effective policy response that minimizes the risk associated with this invasion pathway, while rewarding garden industry leaders that switch comprehensively to propagating and selling alternative safe non-invasive garden plants.

The irreversible nature of both weeds that are beyond eradication and biodiversity loss reinforce the need for a highly dependable and effective suite of policy instruments to be implemented.

Voluntary approaches to manage the risks posed by invasive garden plants are superficially attractive. The aim of a national voluntary approach would be for an industry funded and managed scheme to engage the retail, propagation and distribution industry members in an effort to persuade them to voluntarily remove certain high-risk species from their stock. The benefits or incentives for industry to participate have often focused on good public relations and 'environmentally friendly' branding for those involved. Voluntary schemes are often attractive policy options for government as an alternative to imposing sometimes unpopular restrictions on an industry sector.

This paper considers the conditions that need to be met to ensure that voluntary approaches ("VAs") to natural resource management are effective, based on OECD and Australian Government criterion. In relation to the garden industry, there are inherent constraints that prevent most of these conditions being met and as such strongly mitigate against a national voluntary approach being effective. These include:

- **The structure of the garden industry**, which is dispersed and consists of many small- to medium-sized businesses. This impedes the successful implementation and monitoring of voluntary measures.
- **Limited coverage by the national industry body.** The national industry body, Nursery and Gardening Industry Australia (NGIA), has a membership of just over one third of the production businesses, and excludes major retailers including supermarket and hardware store chains. A consequence of this situation is that a national voluntary measure would create an un-level playing field where leading NGIA members that voluntarily remove invasive garden plants from sale may be commercially disadvantaged by non-NGIA members that continue to sell and market high-risk invasive garden plants. This paper outlines a New Zealand case that highlights this risk - one large retail chain commissioned market research which suggested that if it was the last garden plant outlet where it was still possible to buy certain invasive garden plants, it would create a market niche and be 'good for business' (free-rider effect). This underpinned their decision not to participate in the voluntary scheme.
- **Size of the industry body.** The Australian Government Industry Taskforce notes that self-regulatory schemes may be very costly to run and administer, and that in terms of cost, the presence of a large industry association appears to be a crucial factor to ensure a

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workable scheme. The size of the NGIA and related bodies is insufficient to give confidence that cost advantages would occur.

The four case studies presented reinforce this analysis. Of these, the experience of New Zealand's attempt to implement a national voluntary measure – an Industry Standard for the garden sector – is most salient. While supported by many quarters of the garden industry, the resistance of some major retail chains led to the failure of this voluntary measure and the government decision to implement national legislative bans on the sale of high-risk invasive plant species. The case studies generally show that voluntary approaches undertaken to date in Australia and elsewhere have failed to significantly reduce trade in invasive garden plant species, except in a couple of local instances. The success of these local instances cannot be scaled up due to the constraints outlined above. Thus, despite their appeal to industry and government, voluntary schemes fail to comprehensively engage the garden industry and have failed to significantly impact upon the scale and range of invasive plants sold by them.

However, voluntary measures have some positive benefits in terms of education and awareness raising, and should be used as part of a comprehensive policy mix.

The conclusions drawn in this paper are consistent with the OECD finding that:

[t]here is limited evidence as to the environmental effectiveness of VAs which seem to provide little incentive to innovate and can be weakened by a lack of credibility, especially vis-à-vis public opinion. Yet VAs are likely to generate significant 'soft effects' in terms of dissemination of information and awareness-raising. On the other hand, their ability to reduce administrative costs remains an open question; transaction costs should also be evaluated. Finally free-riding and regulatory capture can seriously effect the effectiveness of VAs (OECD, 2003).

Although this paper concludes that voluntary approaches must not be relied upon exclusively, or predominantly, there is certainly a role for industry-led voluntary approaches to contribute to the overall outcomes that reduce weed impacts and risks.

To ensure a level playing field that rewards those garden industry leaders that remove high risk invasive species from trade, voluntary measures (such as industry accreditation and education) needs to be underpinned by a national legislative ban on high-risk invasive plant species, combined with a consumer awareness campaign and a national plant labeling scheme. Such a policy suite would create the foundation for a dependable policy intervention that will realize its objectives. On the other hand, a national voluntary approach alone will create a perverse incentive not to participate – as occurred in New Zealand - and industry leaders (first-movers) are likely to suffer commercial disadvantage by participating in such schemes.

1 Introduction

This paper examines the limits of voluntary measures to effectively control the sale and spread of invasive garden plants. As the nursery industry is only one distribution channel for garden plants, this paper considers the comprehensive coverage of distribution, including supermarkets and hardware shops.

WWF-Australia is concerned that the cost of introduced invasive plants to the Australian community is already too high, and growing. A significant source of this cost is due to escaped invasive garden plants. The CSIRO report, *Jumping the Garden Fence: Invasive garden plants in Australia and their environmental and agricultural impacts*, shows that two-thirds of introduced species now established in the Australian environment are escaped garden plants, comprising 70% of the agricultural, noxious and natural ecosystem weeds (Groves et al, 2005). As many of those introduced invasive plant species take decades or even centuries to naturalise and spread, the full economic costs of recent naturalizations has yet to fully manifest. Examples of those invasive garden plants first introduced decades ago that already cost farmers \$100m's a year are Paterson's curse which costs \$30m/yr, lippia which costs \$38m/yr and rubbervine which costs \$27m/yr (Groves et al, 2005; Mackey, 1996). Just one escaped garden plant, lantana, now degrades over 4 million hectares of Australia's environment (Martin, 2003).

Escaped garden plants are therefore a substantial contributor to the estimated \$4 billion/year attributed to weed impacts in agricultural ecosystems alone. These impacts may be experienced as direct control costs, lost production opportunities or losses of welfare. This is considered to be an underestimate in that it does not consider impacts on biodiversity, landscapes, tourism, water, and volunteer labour (Environment, Communications, Information Technology and the Arts Reference Committee, p8, para 1.31). Hence, weed management, and the prevention of further escapes into the environment, is a major natural resource management issue for Australia (Groves et. al, 2005, p7).

An appropriate policy is required to prevent additional invasive garden plant species escaping and impacting upon the environment and agriculture. WWF has put forward a recommended policy approach in a range of documents (eg. Glanznig, 2005a; Glanznig, 2005b; see also Australian Biosecurity Group, 2005).

There are many potential measures, or instruments, available to address natural resource management issues. These are grouped into categories, including regulatory (often called "command and control"), economic or financial instruments and voluntary instruments. Different instruments have advantages and disadvantages, and careful design is necessary to ensure the appropriate instrument is used in the particular circumstances of the industry concerned. Further, these instruments are rarely stand-alone, and are often used in combination or as a "suite" of instruments, with regulatory instruments usually providing the minimum standard required, and other instruments providing incentives to go beyond compliance.

The aim of a voluntary approach would be for an industry funded and managed scheme to engage the retail, propagation and distribution industry members in an effort to persuade them to voluntarily remove certain species from their stock. The benefits or incentives for industry to participate have often focussed on good public relations and 'environmentally friendly' branding for those involved. Voluntary schemes are often attractive policy options for government as an alternative to imposing sometimes unpopular and contentious restrictions on an industry sector.

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As voluntary approaches are likely to be able to make a contribution to an overall framework and they are frequently promoted by industry groups as an alternative to regulation, they warrant specific consideration. Voluntary approaches, often referred to as self-regulation, can work in particular circumstances. The paper begins by providing background and context to the particular industry concerned, as the features of the industry are crucial to determining the appropriate instrument selection.

This paper aims to explore the conditions where voluntary schemes work well, and what they must consist of in order to work. On the basis of these criteria and the characteristics of the industry, the paper then evaluates the likely success of voluntary approaches in the specific context of invasive garden plant species. A range of case studies is explored, considering the effectiveness of voluntary actions at national, regional and local levels.

2 Background and context for the garden plant industry

The nursery and garden industry in Australia “comprises more than 20,000 businesses, and employs over 60,000 people”, and “is valued at over \$5.7 billion (at retail)” (Senate Environment, Communications, Information Technology and the Arts Reference Committee, (2004), p121).

The industry comprises nursery growers, nurseries, supermarkets and hardware chains, and landscapers. The nursery growers are the most important group, as their actions will have a major effect on what is imported and which of the existing introduced and native species are propagated and distributed. Owners of gardens, whether the general public, governments or developers can also have an influence in what they demand and are willing to forego. Each of these can have a role in the prevention of escapes, and a framework for managing the threat will need to address them all.

The industry is represented by the Nursery & Garden Industry Australia (NGIA). The NGIA argues that the accredited and member nurseries would be unlikely to be growing a problem plant, and businesses purchasing from them would also be compliant (Environment, Communications, Information Technology and the Arts Reference Committee, (2004), p122, para 5.52). However, the NGIA membership represents just over one third of the production businesses recorded by the ABS (see Table 1). Hence the impact of non-members growing and purchasing practices are significant, and difficult to control through voluntary action of NGIA members. Further, traditional approaches to the industry appear to be changing, with greater internet trading making movement of species potentially harder to track and manage (Environment, Communications, Information Technology and the Arts Reference Committee, (2004), p2, para 1.8).

The NGIA has stated that it is committed to addressing the issue of weed management, but does point to the difficulty of dealing with the “large number of organisations, agencies and committees developing a wide variety of different ‘weed’ lists”. The NGIA points out “[t]his is confusing, uncoordinated and difficult for the community to understand or the nursery and garden industry to deal with, from a commercial perspective” (NGIA Submission to Environment, Communications, Information Technology and the Arts Reference Committee (Sub. no.69)). These are valid comments and are supported by WWF in seeking a better national framework for managing invasive plants.

Table 1 Australian Nursery Industry Statistics: Numbers of production businesses and extent of NGIA membership.

State/Territory	Year 2001	Book Aust	NGIA web site 5/3/04	NGIA membership 2002/2003
NSW		974	1434	313
Vic		395	643	236
Qld		754	751	370
SA		131	230	73
WA		163	261	83
Tas		56	114	26
NT		16	20	22
ACT		6	13	3
Total		2496	3046	1126

Source: The Australian Nursery Industry Statistics on the Nursery & Garden Industry Australia web site 5 March 2004 derived from an Australian Bureau of Statistics survey show the number of **production** businesses in 1996/7 as 3046. Production is not defined.

3 Conditions required for effective voluntary approaches

An OECD Report “Voluntary Approaches for Environmental Policy: Effectiveness, efficiency and usage in policy mixes”, published in 2003, contained a range of recommendations on the design of voluntary approaches (VAs), to safeguard against their main shortcomings. These have been paralleled by the Australian Government’s Industry Taskforce on Self-Regulation. The criteria to be used for assessing the applicability of voluntary schemes to the garden plant industry are taken from these two sources. Some of the OECD criterion included the need for:

- *Clearly-defined targets:* the target should be transparent and clearly defined. VAs should define quantitative targets. Moreover, the setting of interim objectives is crucial since they permit all the parties to identify difficulties arising during implementation at an early stage.
- *Credible regulatory threats:* made at the negotiation stage, a threat of regulation by public authorities provides companies with incentives to go beyond the business-as-usual trend.
- *Credible and reliable monitoring:* provisions for monitoring and reporting are essential for keeping track of performance improvements. They constitute the key for avoiding failure to reach targets. Monitoring should be made at both the company and the sector level in the case of collective VAs. In certain contexts, monitoring by independent organisations may be used.
- *Third party participation:* involving third parties in the process of setting the VA objectives and in its performance monitoring increases the credibility of the VAs. More generally, environmental performance should be made public and transparent. It provides industry with additional incentives to respect their commitments.
- *Penalties for non-compliance:* sanctions for non-complying firms should be set. This can be achieved by either making binding commitments or linkages between VAs commitments and regulatory requirements (eg, the integration of VAs requirements into operating permits).
- *Information-oriented provisions:* in order to maximise the operational soft effects of VAs, support for activities in technical assistance, technical workshops, edition of best practice guides etc, should be promoted.

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The Industry Taskforce on Self-regulation considered that although there was no single “best practice” model for self-regulation, important components to include in voluntary schemes were identified. These parallel the OECD report above, but also emphasise the importance of:

- having sufficient industry coverage and publicity;
- appropriate administration;
- monitoring and review; and
- a focus on cost-effectiveness (Industry Taskforce on Self-Regulation, chapter 6, pp59-86).

The OECD further stated that:

[t]here is limited evidence as to the environmental effectiveness of VAs which seem to provide little incentive to innovate and can be weakened by a lack of credibility, especially vis-à-vis public opinion. Yet VAs are likely to generate significant ‘soft effects’ in terms of dissemination of information and awareness-raising. On the other hand, their ability to reduce administrative costs remains an open question; transaction costs should also be evaluated. Finally free-riding and regulatory capture can seriously effect the effectiveness of VAs (OECD, 2003).

4 Experience to date

The nursery and garden industry in both Australia and New Zealand has undertaken a range of initiatives seeking to address the issue of escaped invasive garden plants. Activities have occurred on national, regional and local scales. This section outlines four of these initiatives. Some examples of voluntary experiences in other industries are also provided. Section 5 will then draw on the case study information to assess how well the schemes meet the criteria provided in section 3.

The Case Studies are divided into two parts: National and Local Programs. The first two case studies are national and the last two are local.

4.1 National voluntary approaches

4.1.1 Australia: Garden Plants Under the Spotlight Strategy

The draft *Garden Plants Under the Spotlight Strategy* (GPUTS) was developed from a meeting held in Adelaide on 5-7 August 1998, and the draft was produced in 1999 (Roush et al, 1999). It provides a good example of a process achievement in that consultation with industry was comprehensive, however, the scheme has failed to produce a significant reduction in the availability of invasive garden plants for sale. Further, it appears that talks eventually broke down and the project did not proceed further (Swayne, 2005).

The strategy proposed a national approach for addressing the weed problems that occur in agriculture and natural ecosystems caused by plants that have escaped from gardens and other landscaped areas. The strategy outlined approaches that could be adopted by local, state, territory and federal government agencies, as well as by the plant industry and horticultural media. Education programs were recommended as the first step to be undertaken by all parties. The strategy emphasised replacing plants of concern as weeds with non-weedy alternatives, and the importance of increasing general awareness nationally that plants that are not a weed problem in one state, territory or region could be a weed problem elsewhere. The GPUTS Strategy suggested that responsibility for avoiding interstate transport of weeds was to be shared, but rested primarily with the recipient, and especially with commercial retailers. Regulation was considered not to be

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necessary in most or all cases, as it was believed that it would not be generally or easily complied with in the absence of prior education programs and consensus building.

The ‘Garden Thugs’ identified under the GPUTS strategy, by weeds specialists from throughout Australia, involved an initial list of 100 plants reduced to 52 through consultation with nursery and garden industry associations. The industry view was that replacement of some of the major weeds currently used in gardens should be encouraged (for example, *Cotoneaster spp.* and *Lantana camara*); while others should never be made available for use in gardens as they present significant weed risks (such as *Equisetum spp.* and *Lagarosiphon major*) (NGIA, Nursery Papers issue 12, 2000).

In discussing the complexities of the current listing process, the strategy suggested that extensive lists developed by semi-urban councils reduce credibility of the listing process by including plants that are not a serious local threat. It was concluded that

the issue of garden escapes requires the development of national policy guidelines backed by a commitment from the States and Territories to address the proliferation of weeds lists at all levels of government, in order to develop a practical system to which commerce can apply and which can arguably reduce weed problems over the long term (Draft GPUTS Strategy p5).

The industry’s idea was that a simplified list of 52 ‘thugs’ would be more effective.

There were number of issues and weaknesses with the GPUTS Strategy. The starting point was the composition of the voluntary Garden Thug list. The list included mostly species that were not being traded or only traded in small volumes, or were already illegal to sell anyway. Therefore, while the retail impact was minimal, some popular, widely traded high-risk invasive plant species were excluded from the final list.

Furthermore, the Industry Association played a significant role in negotiations, but efforts were undermined by the fact that ‘big players’ such as Woolworths and Bunnings were not industry members and thus not bound by agreed negotiations. Non-members saw no incentives to participating in the strategy. This in turn was a disincentive for participation by smaller retailers – for fear of losing customers to the larger stores who stocked more species.

A further problem with the GPUTS was noted by the National Weeds Strategy Executive Committee in their five year review: (Draft GPUTS strategy, p4):

One difficulty encountered in implementing this strategy was the diversity of the Australian climate, which requires targeted information and limits the development of a cohesive national approach...

This reflects a focus on managing impacts of invasive garden plant species, which are regional in nature, rather than a focus on managing the pathways for spread of invasive garden plant species that operate nationally.

Furthermore, the voluntary restrictions were not accepted by all members of the industry and so did not apply consistently, and in fact benefited some non-participants. Craw states “this is the single most important reason why voluntary approaches do not work beyond a certain point eg. The CRC Garden Thugs campaign, which effectively raised awareness but failed to stop industry from marketing some species” (Craw, 2002). This point has been affirmed by WWF analysis that

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showed that there was no change in the range of Garden Thug species advertised for sale between 1999 and 2002 (Glanz and Kessal, 2004).

This underscores the fundamental problem of this voluntary scheme; even if it was finalized and implemented, some garden plant outlets would commercially benefit from the positive actions of others whilst not changing their own practices; problems of engaging small, dispersed businesses; and creation of perverse incentives to gain a comparative advantage by stocking popular invasive lines unavailable elsewhere. The financial bottom line of running viable businesses remained incompatible with the aims of the strategy.

The current status of the strategy (according to the NGIA website) is: “Further work on the strategy is dependent upon sourcing adequate funding from all stakeholders. Preventing the naturalisation and spread of ‘new’ weeds into agricultural lands and natural eco-systems will benefit all Australians. The CRC Weeds and NIAA are exploring options to further this strategy.”

The strategy devoted a section to “education versus regulation” which concluded with “When and where education fails, there may be a good case for improved legislation once community support has been established.” Due to the failure of this voluntary approach and significantly growing community concern, there are now strong arguments for improved legislation.

4.1.2 New Zealand: An Industry Standard

The experience of trying voluntary approaches in New Zealand also illustrates many of the limitations involved.

The initial preferred alternative to a legislative ban in New Zealand, was the development of an Industry Standard. This was accompanied by a Forest Friendly Award Scheme whereby a nursery received a certificate and favourable media if they complied with the standard. Due to the lack of Biosecurity staff to implement the scheme, members of the Forest and Bird Society surveyed nurseries in the 16 regions of New Zealand. Over a third of retailers complied with the standard, and it is estimated that more would have participated in the scheme if all branches of the Forest and Bird Society were equally active across the country.

There was some initial success. For example, one large franchise agreed to sign up to the scheme on the condition that they receive the first certificate and the corresponding positive media and publicity. However, problems were encountered with some of the other large chains and retail franchises. Certain chains indicated they wanted to comply but didn't want to be seen as not stocking species available in other shops, ie, they didn't want to admit to not having stock requested by a customer. Similarly certain retailers refused to join the scheme unless it could be guaranteed that the larger retailers would also sign up. Even with the threat of adverse publicity, certain retailers would not sign up to the scheme. Market research undertaken by one retailer suggested that if they were seen as the last garden plant outlet where it was still possible to get certain ornamental species, then this would create a market niche and be ‘good for business.’ Thus, the scheme created a perverse incentive to stock certain weed species. Due to concerns about the financial bottom line, and customer loyalty, the scheme failed to engage the large retailers (and therefore a significant percent of the market).

The failure of the voluntary approach was a catalyst for the decision to legislate. The ensuing legislative ban was negotiated with the industry and for example, included a 15-16 month phase-out period for existing stock of invasive species. Broad support was gained for a ban from many

sectors including water management authorities, farmers, irrigators, public health agencies, and catchment authorities. This increased the pressure on nursery industry to reform. Another important aspect that encouraged industry to engage in the development of the legislative scheme was the fact that the restrictions applied to the whole industry. All retailers, traders and distributors were accountable, and no part of the industry would derive an unfair advantage or be more severely disadvantaged by a ban. There was also significant public awareness of the issue of weeds, and negative status attached to certain species.

The change from a voluntary mechanism to compulsory regulation had an immediate impact upon industry. Not only was stock removed from sale, but incorrect labelling of old stock has been increasingly rectified through greater vigilance by nursery staff, and increased public awareness was achieved.

The new legislative regime following the failure of the voluntary approach has been described as empowering, consultative, equitable and successful in addressing the problem. This is evidenced by the fact that the issue of weeds ranked 3rd-4th on a list of the most important issues facing New Zealand, and due in part to the reforms is now ranked ninth.

4.2 Regional and local voluntary approaches

4.2.1 Bushland Friendly Nursery Scheme: Northern NSW Coast

There has been some success for voluntary approaches originating at the local level. A good example are the Bushland Friendly Nursery (BFN) Schemes. The success of these local schemes in certain areas has resulted in a move to make the BFN Scheme a national program.

The north coast version of the BFN scheme covers from Taree to Tweed areas. The aim is to get at least 70% of wholesale and retail nurseries participating in the BFN Scheme within 12 months. The Scheme is based on one that has been operating in Logan Shire for several years. Over 75 percent of the nurseries in Logan joined the Scheme. Similar schemes have been implemented in Ipswich and Beaudesert Shires in South-East Queensland. Schemes are also being developed in the Sydney Basin, Victoria, and other parts of the country. It is intended that the scheme will go Australia wide.

The schemes establish environmental weed lists for the local area, specifying plants that should not be sold, propagated or knowingly distributed. (Some of these have non-invasive genotypes that may be acceptable). On the north coast, many of the 85 species (61 genera) involved are rarely sold by nurseries now, so listing will have little impact on most nursery sales figures. A few, like *Duranta repens*, are currently popular species.

However, these schemes do not have 100% participation by local nurseries, are not comprehensive in the scope of weeds covered, and are localised. A short trip to a nursery in a neighbouring local government area could undermine voluntary action taken by nurseries to stop selling certain weeds in another area. Not all local voluntary schemes have been welcomed by all nurseries.

Another successful local scheme has been implemented in Canberra, though it took over 10 years to achieve the full participation of formal garden plant outlets and an impressive degree of persistence (Butler, 2004 cited in Groves et al, 2005).

4.2.2 The Garden Guide: Albury City Council

An example of a less successful local initiative that failed to get strong garden outlet participation was implemented in the Albury area of NSW.

Invasive plants currently sold by nurseries, supermarkets and other outlets have escaped and have turned into a weed problem in the Albury area. These include: *Genista monspessulana* (Montpellier Broom), *Ligustrum lucidum* and *L. sinense* (Broad-leaf and Small-leaf Privet), *Chamaecytisus palmensis* (Tagasaste), *Acacia baileyana* (Cootamundra Wattle), and *Acacia longifolia* (Sydney Golden Wattle).

In response to this problem, enthusiastic local people in Albury compiled a photographic “Garden Guide” including a list of around 70 species which were deemed preferable to planting problematic weed species. The Albury City Council invited all nurseries in the Albury-Wadonga area to a public information session, however most attendees were from wholesalers of native plants (who were already aware of invasive issues) rather than from nurseries.

The bottom line of these local nurseries was “if people want to buy a certain plant, we will sell it to them.” The nurseries refused to promote Council literature on invasive species even when the Council offered to pay. The Council also offered free advertising (a participating nursery could have their logo displayed in the guide), free merchandising and free staff training, however the nurseries were not interested.

This resistance forced the Council to go back to the drawing board. They subsequently employed a Noxious Weeds Officer and a Nursery employee to do an environmental education brochure. The brochure promoted weeds awareness as being ‘good for business’, but was still not embraced by the industry even when free booklets for nurseries to sell were offered. A free support service was offered to all nurseries for information on native species, with associated free training and merchandising, but no nurseries made use of the service.

Supermarkets also did not participate in the Council initiative. When questioned about the sale of invasive species, the larger retailers, including Woolworths and Safeway, stated that their stores did not choose what species were sold, the stock was decided upon by central offices in Sydney. The Head offices were not aware of regional differences (for example regarding Montpellier Broome).

5 Application of the voluntary approach criteria to the garden plant industry

It is important to consider how well a VA in the garden plant industry would be able to meet the criteria provided in section 3. A combination of the OECD and Industry Taskforce on Self-Regulation criteria are examined as follows:

- *Clearly-defined targets:*
- *Credible regulatory threats:*
- *Credible and reliable monitoring:*
- *Third party participation:*

- *Penalties for non-compliance;*
- *Information-oriented provisions;*
- *Sufficient industry coverage and publicity;*
- *Appropriate administration;*
- *Monitoring and review*
- *Focus on cost-effectiveness*

5.1 Clearly-defined targets

In all types of instruments it is difficult to determine appropriate targets and to gain agreement on the means to achieve them. One of the major problems with voluntary initiatives is that they often may not have targets in them at all. Participants are keen to ensure that there will be minimal direct restriction on their independent operation. This can lower the credibility of the schemes to the public and regulators. However, the lack of targets for an entire scheme does not mean that individual participants do not set or meet targets. The problem will be in consistency and coverage (refer to section 5.4 below).

In the case of biodiversity, loss is often irreversible, its values are often poorly calculated or assessed, if at all, and information on the impact of damage is lacking. This makes setting targets for the garden plant industry particularly difficult. Given that a single plant has the potential to create an invasive weed problem, having voluntary targets for different participants in the scheme can easily undermine management and control efforts.

This concern means that the most important aspect from a biodiversity perspective for target setting when considering the applicability of a voluntary scheme is dependability in the context of irreversible, or difficult to reverse, outcomes. Regulatory approaches may be preferred when it is most important to address the physical processes affecting ecosystem quality most directly. According to Young et al (1996) “[a]rguably, there is more dependability when ecological constraints are set and then price, demand and technological forces are allowed to work themselves out.” They also note that “where persuasion and education fail, where enterprises are unwilling to improve their environmental performances voluntarily, and where economic incentives lack dependability, then regulation may be the only technique capable of exerting pressure and compelling resource users and others to protect biodiversity” (Reimbursing the Future, section 7.4.3).

There is some debate about the appropriateness of determining whether a particular plant is invasive or not, and the type of restriction that should be applied to its sale and distribution. Much of the problem comes from an inconsistency in national and state regulation, which highlights the difficulty in establishing targets for all jurisdictions and for industry. It is necessary to determine which of the approximately 35,000 introduced and native species that have been cultivated are, or could become, invasive plants on the basis of a rigorous scientific process, ensuring consistency between national, regional and local targets. This makes a voluntary process, in the absence of such a clear framework, more difficult to achieve and rely upon.

5.2 Credible regulatory threats, credible and reliable monitoring, third party participation, and penalties for non-compliance

Effective self-regulation needs to be backed up by independent assessment and non-compliance penalties. In general however, many participants to voluntary schemes do not wish to be subject

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to truly independent review. Further, as the schemes usually do not specify clear targets, or recognise large variations in performance from different participants, there is a reluctance or inability to enforce compliance.

A voluntary scheme has few possibilities to require non-participants to join, or participants to meet an externally determined standard. For example, the National Packaging Covenant (NPC) has gained a large commitment among industries, and many of these have made progress, however most of this progress has been in process areas, and success is limited in relation to actual outcomes (Ref: Nolan ITU, National Packaging Covenant Council: Evaluation of the Covenant, January 2004: DEH website).

The NPC also provided a credible regulatory threat since it was initially established as an alternative to regulation. It was decided that the NPC would have 5 years to prove it would be successful before stronger regulation would be put in place. The NPC was successful in getting sign up from industry as an alternative to being regulated under the National Environment Protection Measure (NEPM) ('Used Packaging Materials, July 1998, varied in July 2004). There has been criticism from environment groups, however, regarding the lack of enforceable sanctions under both the NEPM and the NPC).

In the case of weeds becoming naturalised in the environment, if there are some, even a small minority, who do not comply with the approach to minimising the escape of plant species, there is a risk of irreversible consequences. In this case, the dependability of the incentive will become a primary objective. Young *et al* (1996) conclude on this point by noting that “[i]n many circumstances, the creation of a level playing field may be an essential prerequisite to the success of the sort of positive, less interventionist approach that we envisage for the large majority of circumstances” (Reimbursing the Future, section 7.4.3).

Also, there may be a difference between what the whole of society requires from a scheme and what the industry promotes through a scheme. This can appear as unclear targets, or targets that differ from the socially optimal target. An example relates to the development of the Mandatory Water Efficiency and Labelling Scheme (WELS) due to commence in July 2006. The final report and the Regulatory Impact Statement draw on the experiences of voluntary water efficiency and labelling schemes first introduced into Australia in 1988. These experiences reveal, among other things, that the focus of the voluntary scheme has changed to concentrate on the better performing products that the suppliers wished to promote. This means the current voluntary scheme is more of an “endorsement” label, as opposed to a “comparative” label, “which encourages buyers to compare the water efficiency of different models” (George Wilkenfeld and Associates PL, 2003).

There is considerable non-compliance with the Garden Thugs scheme. The WWF report “Commercial Availability of Garden Thug Plants” provides evidence “that shows nationally there has been absolutely no change in the number of garden thug taxa advertised for commercial sale from nurseries from the baseline year of 1999 to 2002: 22 garden thug taxa were recorded for sale in 1999 and while there was some turnover of species, 22 garden thug taxa were recorded for sale in 2002 (Glanzign *et al*, 2004, p3). The report notes that there has been some variability on a State and Territory basis, with some states increasing and others decreasing in taxa, and in number of nurseries where they are available for sale. It should be noted that where there may be a reduction in the number of nurseries stocking the garden thug species, some are still occasionally available at larger retail outlets or at markets and fetes.

It is noted in the CSIRO “Jumping the Garden Fence” report that a “major reason for this failure was the nursery industry associations in some individual states not embracing the initiative,

although it was supported by the national body who participated actively in its formulation. However, there is at least one successful local voluntary system of removal from sale of known invasive species in the ACT, but only over a period of 10 years and after an impressive degree of persistence” (Butler 2004 cited in Groves et. al, 2005, p71).

This highlights that without a strong regulatory framework there can be a significant time lag in addressing problems on a voluntary basis, even those implemented at a local level. Further, there can be a major difference between the formal sector and the informal sector if voluntary mechanisms only target the formal sector. It is clear from the case studies presented in section 4 that there is little ability of the industry to establish and enforce penalties for non-compliance, particularly for non-members. There are opportunities for the industry to use its influence in the informal sector and it should be noted that in the ACT, for example, there has been some success by the ACT Weeds Working Group in controlling the problem in cooperation with market organizers (Letter from Geoffrey Price, Convenor, ACT Weeds Working Group to WWF-Australia, 10 May 2005).

5.3 Information-oriented provisions

The introduction of an education program and provision of technical material by industry is important and has had some success in raising awareness of issues among the industry and community (also refer to section 5.1.1 below). For example, the NGIA have undertaken to provide appropriate information to growers, retailers and consumers in certain States. In the Sydney Basin, the NGIA has undertaken a project entitled “Developing Alternatives to Garden Escapes”, which is claimed to have proven successful in increasing awareness of the problem and cooperation in addressing it. The industry also supports the publication of the “Grow Me Instead” booklet, and promotes its distribution amongst growers and sellers. A similar brochure has been produced for the greater Adelaide area by the South Australian state association.

These initiatives are supported by WWF and are considered an integral part of an overall invasive plant management response. The point is not whether these approaches are necessary, but whether they can be relied upon alone to a sufficient extent to implement an effective and dependable policy response.

Additionally, the Water Efficiency Labelling experience highlights that it is still quite a complex matter to correctly label products and to ensure it has the greatest impact on decision makers. For example, there needs to be an approach to ‘disendorsing’ products which might occur in the light of new information.

5.4 Sufficient industry coverage and publicity

Coverage is considered to be crucial, not just for cost reasons, however, but in order to ensure the effectiveness of the scheme. The Industry Taskforce on Self-Regulation states that if “schemes do not have wide industry coverage, then fewer consumers will enjoy improved market outcomes” (Industry Taskforce on Self-Regulation, chapter 6). The parallel in this context is that the smaller the coverage, the higher the risk that invasive garden plants sold by outlets outside the scheme will be able to “escape”.

The industry body (the Nursery and Garden Industry Association) membership is just over one third of the production businesses recorded by the ABS (refer to section 2 above). Given the nature of the threat to the biodiversity, this does not appear to be sufficient coverage to provide security of the outcomes required.

Controlling the Sale of Invasive Garden Plants: Why Voluntary Measures Alone Fail

The difficulty is in ensuring the totality of action of all players in the industry, participants and non-participants, contribute to provide the required outcomes. Those participants who do not make a relatively significant contribution can free-ride on the effort of others, if the benefits of the scheme pass to all participants. This can further discourage those active participants as they shoulder most of the responsibility for no additional gain.

Free-riding is where one party benefit without paying for it. In terms of the garden plant industry, the most obvious form of free-riding is when a plant becomes a weed and the costs are borne by the affected landholders or the government to eradicate or control it. Without any form of regulation (self or otherwise) it is the entire industry which is the free rider. If a voluntary scheme is in place where members are contributing to the cost, the members have reduced the amount of free-riding. On the other hand, non-members are free-riding to the maximum extent. This is largely a question of property rights. Owners of ornamental plants are not responsible for them off-site, but those finding them on their property (as a weed) are responsible. The property-owners do not have a right to be protected from weeds.

A second aspect of free-riding is between those who are members of a voluntary scheme and those outside the scheme. A non-member can potentially gain increased market share and return on the sale of a product that they know members will not be selling. This can undermine the scheme and encourage growers and retailers not to participate. This is often considered as the opposite of the “first-mover advantage”. The New Zealand case study highlights how this happened in practice.

As an alternative to voluntary schemes, a mandatory scheme would provide a “level-playing” field in terms of targets and would ensure that, at least on a legal basis, there is no incentive to stock a product to take market advantage. However, a black-market could eventuate, and this is a matter for alternative means of control.

To support this, the Mandatory Water Efficiency Labelling Scheme for Australia Final Report noted that “the coverage of the existing voluntary program is limited. Because the scheme is voluntary, few suppliers have chosen to label, and those that have tend to label only their better performing products” (George Wilkenfeld and Associates PL, 2003). Low coverage can have significant impact on the credibility and viability of a scheme, and suggest that mandatory requirements are necessary.

This highlights that many voluntary schemes are adopted by industry, as noted previously, to obtain public relations advantages (NCEE, 2001, p174). This can be positive, however it can also have perverse outcomes in relation to the management of weeds if the publicity actually highlights that a competitor has a product that a customer may be seeking.

5.5 Appropriate administration

The Industry Taskforce notes that a self regulatory scheme may still be very costly to run and administer. In terms of costs, the presence of a large industry association appears to be a crucial factor in workability. It states that: “where no large industry association exists, costs would appear to be a prohibiting factor in developing and administering a regime”. As noted in Table 5.1, the size of the NGIA would be insufficient to give confidence that cost advantages would occur.

5.6 Monitoring and review, focus on cost-effectiveness

In terms of monitoring and review, it is noted in literature on voluntary approaches that it is very difficult to determine whether the existing scheme is able to achieve outcomes beyond what would have been achieved otherwise.

In terms of cost-effectiveness, which is obviously related to monitoring and review in relation to meeting targets, it is not clear whether the initiatives taken are able to reduce total costs from environmental effectiveness, administration and transaction costs. Some schemes considered, eg by the United States in terms of their assessment of the benefits of economic instruments, do appear to have generated economic efficiency as far as that has been measured. Much of the success of programs seems to relate to the energy sector, where the characteristics of the industry are very different to those of the garden plant industry. In particular, the voluntary schemes considered most cost-effective focus on achieving, for example, on “limiting the impact of environmental policies on the production costs of firms” (OECD, 2003, p14). This is much more relevant in a context of pollution control, for example.

5.7 Section summary

In summary, the nature of the industry being dispersed and diverse, the lower than necessary coverage by the industry peak body, the difficulty of establishing appropriate targets and assessing performance against those targets suggests that voluntary approaches are not a promising solution to the problems presented in this paper. A voluntary scheme could operate within an effective regulatory framework, but in itself will not be sufficient to control the spread of invasive garden plants.

6 Conclusion

It is apparent from experiences in Australia and New Zealand, that sole reliance on voluntary schemes will never be an effective national and Commonwealth policy response to control the continued sale and wide distribution of high-risk invasive garden plants. Many factors contribute to this failure including: the structure of the garden industry, which impedes implementation and monitoring of voluntary measures across the whole industry; limited coverage of the national industry body, which will lead to industry leaders being commercially disadvantaged by free-riding garden plant growers and outlets outside of the NGIA; and the size of the industry body that mitigates against it being able to run and administer a self-regulatory scheme.

The evidence presented shows that those voluntary schemes that have had some success have been localized, but at bigger scales have generally failed to engage many of the larger retailers who dominate a significant percent of the garden plant market.

The only way to realistically address these failings is to create a national regulatory framework involving a national ban on trade in high risk invasive garden plant species that applies equitably to all retailers. Within that context, other incentives, including co-regulation, could be considered and appropriately designed. Further, education and consumer awareness campaigns should continue to be developed to complement legislative reform and support local nursery initiatives such as outlined in section 5.

This policy approach will create a level playing field that will enable industry leaders to be encouraged and rewarded, rather than commercially penalized by free-riders.

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