Australian Government
Department of the Environment, Water, Heritage and the Arts

Review on the draft

Australian's Biodiversity Conservation Strategy 2010-2020

A Submission by

Nursery & Garden Industry Australia (NGIA)

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A submission on the draft Australia's Biodiversity Conservation Strategy 2010-2020

Nursery & Garden Industry Australia (NGIA) welcomes the opportunity to comment on Australia's Biodiversity Conservation Strategy 2010-2020. This strategy builds on the National Strategy for the Conservation of Australia's Biological Diversity to ensure that all interested parties are equipped with the framework to address biodiversity conservation over the next decade. Historically, NGIA has been sympathetic to the protection of biological systems and has endeavoured to promote sound environmental management practices across whole of industry. Industry understands the intrinsic value of Australia's biodiversity and acknowledges that it will continue to play an important role in protecting our biodiversity for future generations. The industry acknowledges environmental stewardship as an industry priority and is committed to working with other key stakeholders and the community to address this priority. This submission covers key issues NGIA wishes to raise in relation to the draft Australia's Biodiversity Conservation Strategy 2010-2020.

Nursery & Garden Industry Australia is the peak national industry body representing producers, retailers and allied traders involved in the production of plants across all states and territories of Australia. In partnership with state and territory peak bodies, NGIA is responsible for overseeing the national development of the Australian Nursery Industry. The Nursery Industry is a significant sector of the Australian horticultural industry and employs over 45,000 people in over 20,000 small to medium sized businesses with a combined supply chain market value in excess of $15 billion dollars annually. Depicted in Table 1 is the wide range of end users including revegetation providers that play an integral role in restoring Australia's declining biodiversity.

Table 1: National value of horticultural sectors supplied by production nurseries

Production Nursery	Horticultural markets	Economic value
Container stock [1]	Ornamental/urban horticulture	$2 billion retail value
Foliage plants [1]	Indoor display/hire	$87 million industry
Seedling stock [2]	Vegetable growers	$3.3 billion industry
Native and exotic forestry stock [3]	Plantation timber	$1.7 billion industry
Fruit and nut tree stock [2]	Orchardists (citrus, mango, etc)	$5.2 billion industry
Landscape stock [1]	Domestic & commercial projects	$2 billion industry
Plug and tube stock [2]	Cut flower growers	$700 million industry
Revegetation stock [1]	Farmers, Government, Landcare	$109 million industry
Mine site revegetation	Mine site rehabilitation	Value unknown
	Total Horticultural Market Value	**$15.0 billion**

[1] Freshlogic (2008) Australian Garden Market Monitor for the Year Ending 30 June 2008
[2] Horticulture Australia Limited (2004) Australian Horticultural Statistics Handbook
[3] Australian Bureau of Agricultural and Resource Economics (2008). Australian Forest and Wood Products Statistics

Owing to the diverse nature of nursery production and its customer base, production nurseries typically occur in urban, peri-urban and regional localities across Australia. As such, industry is confronted with a variety of environmental and natural resource impediments that require careful consideration and management to ensure sound environmental outcomes are achieved. Moreover, industry is reliant on natural resources, such as water for irrigation, and consequently it is critical for industry to reduce its impact on these resources. To this end, industry has developed a comprehensive Farm Management System (FMS) that provides growers and industry with a systematic based approach to improve business outcomes whilst proactively addressing environmental and natural resource responsibilities, both short and long-term, whilst maximising biodiversity. The FMS framework includes:

1. Nursery Industry Accreditation Scheme Australia – Best Management Practices (NIASA-BMP)
2. EcoHort® – Environmental Management System
3. BioSecure *HACCP* – Pest and disease management and risk assessment.

In addition to the FMS, NGIA has had a long history in progress towards minimising biodiversity decline. Currently, there are a variety of industry initiatives, both nationally and state-based that proactively addresses invasive plants, which are considered a major cause of biodiversity decline. The national Grow Me Instead (GMI) program is one such initiative undertaken by industry to decrease the impact and spread of invasive plants. This program aims to eliminate the sale of invasive plants, promote non-invasive alternatives and raise awareness of invasive plants in the gardening community as well as industry. Grow Me Instead builds onto existing nationally coordinated programs including National Plant Labelling Guidelines[1] and Invasive Plants Policy Position[2] that targets both production nurseries and retail garden centres. When combined, these programs demonstrate NGIA's ongoing commitment in tackling the battle against invasive species whilst educating industry and the greater public.

[1] Nursery & Garden Industry National Plant Labelling Guidelines (2009) http://www.ngia.com.au/docs/pdf/your_associations/NGIA_Labelling_Guidelines_AUG07v1.1.pdf accessed 26 May, 2009

[2] Nursery & Garden Industry Invasive plants Policy Position (2009) http://www.ngia.com.au/docs/pdf/your_associations/NGIA_invasiveweedspolicy.pdf accessed 26 May, 2009

An important aspect to consider when discussing biodiversity is the role of ecosystem services. These services provide the necessities for human health and wellbeing with many of these benefits associated with green-life[3] including:

- Improved air quality through interception of pollutants and oxygen production
- Production of food and natural fibre for humans
- Provision of habitat for plants and animals
- Consumption of $C0_2$ through photosynthesis
- Maintaining ground water hydrology
- Stabilisation of climate
- Maintaining soil organic matter
- Enhancing soil nitrogen and recycling of nutrients
- Provide a sense of place
- Enhanced aesthetics

To this end, it is imperative to preserve these ecosystem services by preventing and/or minimising biodiversity decline. Nursery and Garden Industry supports the main threatening processes to biodiversity decline identified in Australia's Biodiversity Conservation Draft Strategy 2010-2020 and supports the priorities for change articulated in this strategy. Industry supports the recognition of climate change as a key driver behind the strategy's vision to ensure that '*Australia's biodiversity is healthy, resilient to climate change and valued for its essential contribution to our existence'*. Building ecosystem resilience is seen by industry as pragmatic in times of growing pressure from anthropogenic and natural pressures for which the future is largely unpredictable.

Inherent climate variability is also a key threat to biodiversity

Nursery & Garden Industry Australia suggests that the definition of climate change used in this document should be broadened to include naturally occurring climate variability, considered to be of equally high importance to industry. Indeed, industry is inherently vulnerable to climate

[3] Cork SJ and Shelton D (2000) Sustainable Environmental Solutions for Industry and Government. Proceedings of the 3rd Queensland Environmental Conference, May 2000, Environmental Engineering Society, Queensland Chapter, The Institution of Engineers, Australia, Queensland Division, and Queensland Chamber of Commerce and Industry, pp151-159.

change and climate variability due to its dependence on, and close affinity with natural resources. With respect to biodiversity, the main impacts of climate change and climate variability on NGIA include:

- Uncertainty surrounding the management of exotic pests[4]
- Changes in the distribution of existing pests
- Increased threat of new incursions

In addition to expanding the definition of climate change to encompass inherent climatic variability, there are several key areas that require consideration that may strengthen this strategy prior to commencement in 2010.

Implementation of a robust biosecurity system as an effective barrier against future incursion should be addressed in greater detail

The Australia's Biodiversity Conservation Draft Strategy 2010-2020 fails to adequately address quarantine and biosecurity as an effective mechanism to minimise biodiversity decline. This idiosyncrasy comes at a time when Australia is facing significant pressure from pest incursions arising from increased imports, travel and climate change and variability. This is no more apparent then the recent release of the National Plant Health Status Report that exacerbates the need for a robust plant biosecurity system[5]. Furthermore, there is also much uncertainty surrounding the implementation of the reforms detailed within the Beale review, and how these will impact on Australia's biodiversity[6]. It is imperative that Australia maintains a robust biosecurity system to minimise the likelihood of exotic pest incursions, such as Sudden Oak Death (*Phytophthora ramorum*). Effective biosecurity measures are essential to prevent pests from entering and spreading in Australia and threatening large expanses of the Australian landscape. Indeed, pest incursions are likely to increase with climate change and variability, and their relationship with hosts is likely to change. Moreover, the distribution of endemic pests is

[4] The definition of a pest as adopted by the International Plant Protection Convention refers to any species, strain or biotype of plant, animal, or pathogenic agent, injurious to plants or plant products is used throughout this submission.

[5] Plant Health Australia (2009) The National Plant Health Status Report 07/08.

[6] Commonwealth of Australia (2008) One Biosecurity – A Working Partnership: The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government.

also likely to be exacerbated by climate change, no more so than the distribution of environmental weeds.

This strategy needs to clearly articulate the importance of maintaining Australia's plant health status and explicitly state that biosecurity is a 'whole of community' responsibility involving State and Federal Governments, industry and the wider public. It is vital that significant changes are made along the biosecurity continuum, including on-farm, to adapt to the challenges that will impact on Australia's biodiversity in the years ahead. For example, industry developed BioSecure *HACCP* guidelines require further recognition from Governments as a robust on-farm biosecurity system which provides growers with the tools necessary to identify relevant biosecurity risks and the steps needed to control them.

The NSW Invasive Species Plan 2008-2015[7] indicates *'The most effective way to minimising the impacts of invasive species is to prevent their initial incursion. The challenge is to identify species, thoroughly assess potential invasiveness and implement affective barrier to prevent establishment'.* This challenge has been previously documented by the Natural Resource Policies and Programs Committee, Biodiversity Decline Working Group[8] where it was stated that prevention rather than cure is the most cost-effective mechanism to protect and manage intact ecosystems as compared to rehabilitating and restoring damaged ones. It is the view of industry that a rigorous, science-based biosecurity regime is practiced that is transparent to the international community.

Recognition of urban biodiversity and its decline is required

A severe impediment to this strategy is the failure to satisfactorily address biodiversity in the urban environment and develop a clear strategy to prevent biodiversity decline in theses areas. In recent times the concept of urban forestry has gained widespread recognition as a critical part of urban infrastructure. Simply put, urban forestry is the management of trees, and in general green-life in the built environment. On 17 February 2009, NGIA hosted the augural Urban

[7] NSW Department of Primary Industries (2008) NSW Invasive Species Plan 2008-2015.

[8] Natural Resource Policies and Programs Committee, Biodiversity Decline Working Group (2005) A National Approach to Biodiversity Decline http://www.environment.gov.au/biodiversity/publications/pubs/biodiversity-decline.pdf accessed 26 May, 2009.

GreenScapes Symposium in Canberra[9] to unveil the multitude of ecosystem services attributed to trees and green-life in the urban landscape. In addition to those mentioned previously, other perceived ecosystem services arising from trees and green-life include:

- Reduction in energy consumption through strategic planting of green life such as green roofs and green walls
- Enhanced evaporative cooling effects through evapotranspiration
- Reduced heat island effect though shading of hard surfaces
- Interception of urban run-off

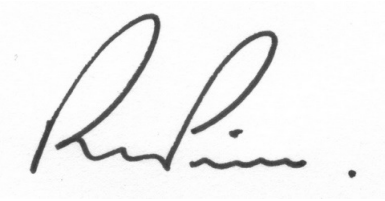
A key message arising from this symposium was the need for investment to develop an Australian resource to quantify the ecosystem services attributed to urban green-life. This has already been achieved in America where Researchers at the Centre for Urban Forest Research - a research unit of the United States Department of Agriculture (USDA) Forest Service's Pacific Southwest Research Station, have developed a comprehensive scientific model that quantifies these benefits in 16 different climatic zones across America[10]. A similar approach is required in Australia to efficiently manage this valuable resource and provided a sound platform for strategic planning and decision making at local, state and national levels in terms of urban biodiversity. Although this tool has been successfully applied across America, its application in Australia requires further research, namely climatic and species considerations.

Bolstering investment in research, development and extension will ensure the successful implementation of this strategy

Nursery & Garden Industry Australia believes that investment in education and science is fundamental in order to understand the complexities associated with biodiversity decline. Investment will also underpin biosecurity and quarantine arrangements to minimise further biodiversity decline. It is critical that investment begins immediately in order to meet the objectives, actions and results for each of the six priorities listed within this strategy by 2020. However, it is apparent that research and extension activities are not a priority action in the first

[9] Nursery & Garden Industry Urban GreenScapes Symposium (2009) http://www.ngiaevents.com.au/sympo2009/ accessed 26 May, 2009.
[10] http://www.itreetools.org accessed 26 May, 2009.

two years of this strategy (Table1.1). Moreover, these priority actions do not focus on building partnerships and/or fostering collaborations with industry which can be time consuming to implement and should occur immediately upon inception of this strategy. Recently, the closure of the Cooperative Research Centre for Australian Weed Management has reduced available funding to specifically address invasive plants. Furthermore, the Australian Government announced as part of the 2009–10 Budget that it would abolish Land & Water Australia on June 30, 2009. This perceived lack of funding will make it difficult for collaboration between Governments, industry and the private sector and prove detrimental in minimizing further biodiversity decline. Moreover, with the risk of climate change and climate viability continuing to influence biodiversity, there has never been a more important time for Government investment and intervention in research to satisfy the needs of the Australian economy and community at large.



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