

Invasive Alien Species Matrix

The assessment and management of invasive alien species (IAS) is a very important issue for Australia – for the natural and built environments, biodiversity and in production landscapes. Australia sees a valuable role for the Convention on Biological Diversity (CBD) in contributing to future IAS work by serving as a clearing-house for information on IAS and scientifically based risk assessment systems, together with practical and effective ways of dealing with the problem.

Australia will implement CBD IAS decisions consistent with national and state government policy and Australia’s existing biosecurity regime, including science based risk assessment processes, as well as related international legally binding instruments to which Australia is party. In particular, it is important that invasive species initiatives are consistent with countries’ obligations under the World Trade Organization *Agreement on the Application of Sanitary and Phytosanitary Measures* (SPS Agreement) and its relevant international standard setting bodies, including the International Plant Protection Convention (IPPC), the World Organisation for Animal Health (OIE) and the Codex Alimentarius Commission.

CBD provision	Objective of CBD decision	Implementation status (if relevant)	Priorities / future directions (if relevant)
Legislative measures and national policies	Develop and implement invasive alien species strategies and action plans (V/8 § 6, VI/23 § 12)	<p>Biosecurity</p> <p>Australia interprets the CBD term "alien invasive species" in conjunction with its other international obligations, most notably under the OIE and the IPPC. Australia supports the existing robust and strong set of international guidelines, as well as the invasive species definitions agreed under the OIE and the IPPC.</p> <p>AusBIOSEC</p> <p>Australia’s biosecurity arrangements are being</p>	<p>AusBIOSEC</p> <p>An IGA is currently under</p>

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		<p>enhanced through the Australian Biosecurity System for Primary Production and the Environment (AusBIOSEC).</p> <p>An intergovernmental agreement (IGA) between the Australian Government and state and territory governments is being developed that will aim to facilitate an agreed national approach for implementing enhanced biosecurity arrangements for the primary production and environment sectors.</p> <p>Marine Species</p> <p>Under the National System for the Prevention and Management of Marine Pest Incursions, the Australian Government is developing legislation for managing bio-fouling and ballast water.</p> <p>Bio-fouling: Australia is developing policy aimed at minimising the risks of introducing marine pests via bio-fouling.</p> <p>Ballast water: Under national legislation, an Australian Ballast Water Unit will provide a single point of contact for the shipping industry and will coordinate inspections.</p> <p>Weeds</p> <p>In November 2006 the Natural Resource Management Ministerial Council (NRMMC) endorsed the newly revised Australian Weeds Strategy which sets out goals and actions for those involved in weed management within</p>	<p>development.</p> <p>Marine Species</p> <p>Australian Bio-fouling Management Requirements are currently under development.</p> <p>Australian jurisdictions have agreed the key elements of national ballast water legislation and are working to have the legislation in place by 1 July 2009.</p>

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		<p>Australia. The key goals of this strategy are to: prevent new weed problems; reduce the impact of existing priority weed problems; and enhance Australia's capacity and commitment to solve weed problems.</p> <p>Feral animals</p> <p>In May 2007, the NRMCC endorsed the Australian Pest Animal Strategy which sets out goals and actions for those involved in pest animal management within Australia. The key objectives of this strategy are: to provide leadership and coordination for the management of pest animals; prevent the establishment of new pest animals; and manage the impacts of established pest animals.</p>	
	<p>Incorporate invasive alien species into national biodiversity strategies and action plans and sectoral policies including identification of national needs and priorities and review/adjustment of policies, legislation and institutions (VI/23 § 10, 12)</p>	<p>Biosecurity</p> <p>Biosecurity Australia assesses the potential risks associated with quarantine pests that may enter into Australia with the importation of plants, plant products and/or animals, animal products.</p> <p>Other actions associated with the control or elimination of invasive alien species are being implemented through the Australian Weeds Strategy, Australian Pest Animal Strategy and the revision of Australia's National Biodiversity Strategy.</p>	
	<p>Promote and implement the Guiding Principles (VI/23)</p>	<p>Australia cannot accept language on three aspects of the Guiding Principles.</p>	

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		<p>Definition of the precautionary approach The treatment of the precautionary approach in the current COP 6 Decision VI/238 goes well beyond the definition agreed in Principle 15 of the UN Rio Declaration on Environment and Development, as endorsed at the World Summit on Sustainable Development (WSSD).</p> <p>Burden of proof The burden of proof provision in Principle 10 of the current VI/23 disputed text, which places the onus on the country of export, shifts the balance in WTO Members' rights and obligations.</p> <p>Risk assessment Australia is concerned that the characterisation of risk analysis, which includes "taking into account socio-economic and cultural considerations", may be interpreted to undermine the scientific underpinnings of risk assessment and risk management processes as set out under international trade rules.</p> <p>Other international agreements that Australia is party to provide guidance on dealing with uncertainty and risk assessment.</p>	
	Consider ratification of the International Convention on the Control and Management of Ships' Ballast Water and Sediments; the International Plant	<p>Marine Species Australia is preparing ballast water legislation to give effect to the provision of the Ballast Water Convention as a basis for ratification.</p>	<p>Marine Species Ballast water management legislation is to be in place by 1 July 2009.</p>

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	Protection Convention; United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses; the Convention on the Control of Harmful Anti-fouling Systems on Ships (VI/23 § 6; VII/13 § 3; VIII/27 § 22, 25, 31, 65)	Australia has ratified the Convention on the Control of Harmful Anti-fouling Systems on Ships. Plants Australia is a party to the International Plant Protection Convention.	
Management	Facilitate inter-agency collaboration and communication with particular emphases on national coordination committees and border control, plant protection, trade and maritime agencies (VI/23 § 10; VII/13 § 5e; VIII/27 § 8, 17, 27, 68)	AusBIOSEC The AusBIOSEC process will promote whole of government and cross sector management of biosecurity. Coordination of national biosecurity issues will be through a new National Biosecurity Committee reporting to both the Natural Resource Management and the Primary Industry Standing Committees. Marine Species The National System for the Prevention and Management of Marine Pest Incursions is being developed and implemented by the National Introduced Marine Pest Coordination Group (NIMPCG), which comprises Australian Government departments, state and Northern Territory government agencies, researchers and representatives from fishing and marine industries, port authorities and conservation groups.	AusBIOSEC The National Biosecurity Committee will be established following the signing of the IGA by all jurisdictions.

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		<p>Weeds</p> <p>The Australian Weeds Committee (AWC) provides an inter-governmental mechanism for identifying and resolving weed issues at a national level.</p> <p>The AWC is a cross-jurisdictional committee with representatives from all states and territories, the CSIRO and the Australian Government.</p> <p>The AWC oversees the administration of the Australian Weed Strategy (AWS), which is the overarching policy for weed management in Australia.</p> <p>National coordination and facilitation of action to address each of the 20 Weeds of National Significance (WoNS) is currently managed through the WoNS programme. WoNS management coordinators work with their management committees to provide national leadership across all jurisdictions to promote a collaborative and cohesive approach to management of the WoNS.</p> <p>Feral animals</p> <p>The recently released Australian Pest Animal Strategy will facilitate improved inter-agency cooperation and more targeted national action against feral animals including development of a priority pest animal list and identification of nationally significant environmental assets to be</p>	

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		protected.	
	Involve various sectors and interest-holders relevant to the management of invasive species activities as well as to the pathways for the unintended transfer of invasive alien species (VI/23 § 10d, 10f; VIII/27 § 8)	<p>Marine Species The National System for the Prevention and Management of Marine Pest Incursions is being developed and implemented by the National Introduced Marine Pest Coordination Group (NIMPCG), which comprises Australian Government departments, state and Northern Territory government agencies, researchers and representatives from fishing and marine industries, port authorities and conservation groups.</p> <p>Feral animals The Vertebrate Pest Committee will identify a mechanism for involving stakeholders in implementing the Australian Pest Animal Strategy.</p> <p>Military activities To mitigate the threats associated with invasive species, the Department of Defence has in place Defence Instruction (General) 46-1: Quarantine and Defence Instruction (Navy) OPS 19-1: Policy for the disposal of ship borne waste. The Department has also developed policies to manage the risks associated with feral animals and weeds on defence properties.</p>	
	Pathways	<p>Marine Species Under the National System for the Prevention and</p>	<p>Marine Species In July 2007, Australia supported</p>

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	<ul style="list-style-type: none"> · Conveyances · Aquaculture / mariculture · Ballast water · Hull-fouling · Air transport · Military activities · Emergency aid, relief and response · International development assistance · Scientific research · Pets, aquarium species, live bait, live food and plant seeds · Bio-control agents · Ex-situ animal breeding 	<p>Management of Marine Pest Incursions, ballast water management arrangements are being implemented, and National Best Practice Management Bio-fouling Guidelines are being developed for a number of sectors including commercial, fishing and recreational vessels and ports and harbours.</p> <p>Weeds</p> <p>The Defeating the Weed Menace programme has invested in a number of projects which will contribute to providing new bio-control agents and to increasing the effectiveness of agents through engaging community groups in enhanced release efforts.</p> <p>Humans as a pathway for spread are being addressed through comprehensive industry engagement programmes. Work is underway to support the nursery and garden industry to deliver industry training accreditation to growers, wholesalers and retailers on invasive plant issues. This partnership also supports a significant consumer awareness component <i>Grow Me Instead</i>, which engages local nursery owners in identifying weedy species in their regions and then promoting low risk alternative species to consumers at the point of sale.</p> <p>Feral animals</p> <p>Preventing the establishment of new pest animals is one of three goals under the Australian Pest</p>	<p>the addition of bio-fouling to the agenda of the Marine Environment Protection Committee of the International Maritime Organisation.</p>

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	<p>programmes</p> <p>· Tourism</p>	<p>Animal Strategy. This will involve working with trading partners and risk assessment and management of the import and keeping of exotic vertebrates.</p> <p>Biosecurity As part of Biosecurity Australia's import risk analysis process, all parts of the importation pathway are examined in determining the potential phytosanitary and sanitary risks associated with the importation of plants, plant products and/or animals, animal products.</p> <p>Military activities The Department of Defence has signed a memorandum of understanding with the Australian Quarantine and Inspection Service (AQIS) concerning quarantine procedures, fees and requirements for defence force personnel and equipment returning to Australia.</p> <p>International development assistance The issue of invasive species is taken into account through AusAID's environmental assessment and management processes. All AusAID activities are required to undergo at least a preliminary environmental assessment. If invasive species are identified as an issue, an activity environmental management plan will be prepared. A country level Strategic Environmental Assessment can provide information for partner</p>	

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		countries and regional organisations to raise the issue of invasive species in aid program consultations.	
Assessment	Further develop risk analysis, including environmental risk assessment, alert lists, diagnostic tools, capacity development and inter-agency cooperation (VII/13 § 6b, 6e)	<p>Marine Species</p> <p>Management of marine pests in Australia is underpinned by a scientifically robust risk assessment process developed through acquisition, analysis and peer review of species distribution, life cycle and temperature tolerance data. These data assess the probability of species presence, uptake of entrainable life stages, voyage survival, and species establishment in discharge port.</p> <p>National Control Plans are being developed for six marine pest species of concern to reduce impacts and minimise the spread of these pests.</p> <p>Weeds</p> <p>Development of a Uniform National System of Weed Categorisation and Risk Assessment is currently underway. This project aims to develop a system of 4-6 generic weed management categories including management objectives for each category and also to develop and apply a rapid weed risk assessment and prioritisation tool to assign a preliminary selection of 250 species to their appropriate categories.</p> <p>A National Weed Incursion Response Plan is also being developed. This project will develop a</p>	

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		<p>national framework for managing new incursions into Australia. The framework will include relevant technical and operational guidelines applicable to the detection and early eradication of new weed incursions.</p> <p>Feral animals</p> <p>The Australian Government continues to improve its risk assessment process for the import and keeping of exotic animals. A national pest information system will inform a range of management actions of key vertebrate pests.</p> <p>Biosecurity</p> <p>Biosecurity Australia has recently published a revised Import Risk Analysis Handbook (2007), providing stakeholders with information on the import risk analysis process. In accordance with Australia's international obligations, risk assessments currently include consideration of potential environment risks and consequences.</p>	
	<p>Incorporate threats of invasive alien species into environmental impact assessments, strategic environmental assessments and the development and review of bilateral, regional and international arrangements, such as trade (VI/23 § 12a; VII/13 5d)</p>	<p>Biosecurity</p> <p>Biosecurity Australia currently includes consideration of potential environmental risks and consequences when undertaking import risk analyses.</p>	
	<p>(Research) Characteristics of</p>		

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	invasive species		
	(Research) Vulnerability of ecosystems and habitats to invasion, including means to enhance resiliency	Marine Species A project is being developed to assess the risk of the establishment of a marine pest due to ballast water exchange in the Commonwealth Marine Area. This project will also attempt to model the natural spread of already established marine pests.	
	(Research) Potential effects of global change, including climate change		
	(Research) Ecological and socio-economic impacts	Marine Species A regulation impact statement (RIS) was commissioned to examine the impact of implementing consistent national ballast water management requirements. The RIS concluded that ballast water exchange outside 12 nautical miles moving to on-board treatment after 2009 was the most cost effective management option in most cases.	
	(Research) Various pathways for the introduction of invasive alien species	Marine Species A project is underway to assess arrangements for managing marine pest risks in the Australian aquarium trade. A project is underway to identify and assess the risk potential for vessels, equipment and activities associated with the offshore petroleum industry to introduce, translocate or provide habitat for	

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		invasive marine pests.	
	(Research) Environmentally benign methods to control and eradicate invasive alien species, including quarantine measures, bio-control agents and hull fouling treatments		
	(Research) Baseline taxonomic information, including priorities for taxonomic work		
	(Research) Criteria for assessing risks from introduction of alien species to biological diversity at the genetic, species and ecosystem levels (VI/23 § 12c, 15, 24, Guiding Principle 5: Research and monitoring)		
Economic instruments	Consider the need to develop financial measures, such as positive incentives, and other policies and tools to promote activities to reduce the threat of invasive alien species (VI/23 § 12, 17; VII/13 § 6f)	<p>Weeds</p> <p>Funding has been provided to develop best practice methodology for management of the Weeds of National Significance (WoNS). Best practice guides are now available at no cost for 11 of the 20 WoNS, with the remainder in train. National Mapping guidelines have also been produced to encourage a standardised approach to the collection of data on weed incursions.</p> <p>Feral animals</p>	

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		The Australian Government provides funding under the Natural Heritage Trust and Invasive Animals Cooperative Research Centre to develop and promote improved pest animal control tools.	
Provision of resources	Build capacity at the national level to address various pathways for the introduction and spread of invasive alien species (VIII/27 § 4)	The Australian Government works with state and territory governments, through the Australian Weeds Committee and the Vertebrate Pests Committee, to build capacity to address the various pathways for the spread of weeds and pest animals within Australia.	
Communication, education and public awareness	Support communication and public awareness efforts on the threat of invasive alien species, including through the proactive engagement of relevant stakeholders in invasive alien species-related activities (V/8 § 9; VI/23 § 10e; VIII/27 § 6, 13)	<p>Marine Species</p> <p>A National Communication and Awareness Strategy is being implemented to support and encourage the uptake of measures developed under the National System for the Prevention and Management of Marine Pest Incursions. The strategy includes specific communication plans for each marine sector and aims to assist vessel owners and operators comply with Australian legislative requirements, and to adopt the National Best Practice Bio-fouling Management Guidelines.</p> <p>Weeds</p> <p>The Australian Government initiated a media campaign in September 2007 to raise public awareness of weeds as an issue and to convince individuals that their actions can make a difference.</p>	

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		<p>The key message of the national media campaign is that a plant can be perfectly safe in one area, and a major weed in another area.</p> <p>It aims to raise awareness and engage the community to take its part in reducing the impact of invasive plants by:</p> <ul style="list-style-type: none"> • seeking advice from their local nursery, council, the new weeds website or other qualified person before purchasing or planting new plants in their garden; • looking critically at what is currently in the garden and, if appropriate, removing and disposing of the plant; • considering how to dispose of garden waste appropriately; and • thinking about the possible spread of weeds when travelling into known infested country. <p>The nursery and garden industry is supportive of this campaign.</p> <p>Feral animals</p> <p>Under the Australian Pest Animal Strategy a communication strategy and consultation mechanism will be developed and implemented.</p>	
	Share information and experiences through the clearing-house mechanism and/or other	In line with Article 18 of the Convention, Australia's Clearing-House Mechanism (CHM) promotes and facilitates technical and scientific	

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	relevant mechanisms on: prevention; potential pathways; monitoring and early detection; eradication; management and control efforts, particularly technical support for rapid response activities; risk analysis; potential pathways; import requirements; domestic occurrences of alien species that may be invasive elsewhere (VI/23 § 25, Guiding Principle 8: Exchange of Information; VIII/27 § 11, 16, 61)	exchange between parties. Australia's CHM provides access to a wide range of Australian government agencies, as well as research institutions, industry and other non government organisations concerned with biodiversity and its sustainable use.	
	Communicate to importing countries relevant information (e.g., for risk analysis) about species that are known to be potentially invasive (VIII/27 § 12)	Australia publishes relevant information on potentially invasive species through the Department of Agriculture, Fisheries and Forestry website: www.daff.gov.au	
	Develop and coordinate information systems and database networks including incident lists, potential threats to neighbouring countries, taxonomic, ecological and genetic information; control methods (VI/23 Guiding Principle 8: Exchange of Information)	SPS Capacity Building Program and ASEAN Australia Development Cooperation Program's (AADCP) Plant Health Program have addressed the building of credible, specimen-based pest and disease databases and strategies for sharing information among ASEAN countries. Within Australia, the Australian Plant Pest Database (APPD) has been developed to enable searching of geographically distributed,	

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		heterogeneous databases for pest and disease records.	
Cooperation	Improve coordination of regional measures through the development of regional standards, support for risk analysis and cooperation and communication mechanisms (V/8 § 7; VI/23 § 10g; VII/13 § 6)	<p>Training workshops under the SPS Capacity Building Program and various bilateral programs have enhanced capacity in the ASEAN and Pacific region to adopt international standards and best practice (e.g. in surveillance, diagnostics and information management), perform risk analysis and share information relevant to biodiversity, invasive species and plant health. These programs have also included training in risk analysis.</p> <p>Biosecurity</p> <p>Biosecurity Australia actively engages in the development of international, regional and domestic standards that improve the capacity of both developing and developed nations to manage potential sanitary and phytosanitary risks.</p>	
	Consider cross-border impacts as part of national and regional decision-making processes (VIII/27 § 60)	Capacity building has emphasised invasive and pest species in cropping systems and the minimisation of trans-boundary movements in the ASEAN region.	
	Be proactive in preventing introductions, for example by assisting neighbouring states with invasive alien species that may cross borders (VII/27 § 62)	Australian Government agencies such as AusAID and ACIAR continue to fund projects to assist neighbouring states with invasive species management. A good example is the project currently underway to assist Papua New Guinea and Fiji to develop biological control agents for the 'mile a minute' weed.	

