REVIEW OF PROGRESS TOWARDS THE IMPLEMENTATION OF THE PRICKLY ACACIA STRATEGIC PLAN *(2006 – 2007)*

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PRICKLY ACACIA STRATEGIC PLAN 2006 - 2007
EXECUTIVE SUMMARY

Prickly acacia (*Acacia nilotica* subsp. *indica*) is a major weed threatening both agricultural production and environmental values across more than 6.6 million hectares of Australia. A national strategy has been developed with implementation overseen by the National Prickle Bush Management Group. This report outlines the key achievements and progress made through the national coordination of prickly acacia management in 2006 – 2007.

Coordinated action is occurring in every state and territory threatened or impacted by prickly acacia. During 2006 – 2007 strategic control, surveys and mapping, national awareness, national strategy review and national coordination were funded by the Australian Government's Defeating the Weeds Menace and Natural Heritage Trust. This has been matched and complemented by state and territory government initiatives.

Community driven and agency supported strategic control continues to be a major focus of national efforts. All known infestations outside of Queensland are now under active management. This includes one site in South Australia, four in Western Australia and at least 12 in the Northern Territory.

Containment actions in Queensland have resulted in the control of 98,346 hectares of prickly acacia. These actions have safeguarded from prickly acacia invasion, an area of approximately 950,000km^2 of the Lake Eyre Basin and 105,000km^2 of the Gulf of Carpentaria region. Over 1 million hectares have been surveyed for prickly acacia with over 20 new sites being recorded. National maps have been updated and remain a key planning and prioritisation tool for stakeholders.

The spread of prickly acacia has been reduced through moderate increases in stock hygiene management protocols. This will be further enhanced by the development of proposed washdown facilities at Ilfracombe and McKinlay and the upgrading of a facility in Cloncurry in Western Queensland.

A national awareness campaign has featured field days, workshops and regional events using a range of national extension products. This has increased the number of weed management professionals, regional group officers and landholders who have the skills to identify new prickly acacia outbreaks in at risk areas.

Research has continued to look for tools to improve prickly acacia management. A new project has commenced to investigate potential biological control agents in India. A remote sensing project has also helped refine techniques for mapping and evaluating changes in the density and extent of infestations.

The formation and application of effective and collaborative partnerships was reflected in the ability of stakeholders to attract Queensland Blueprint for the Bush – Pest Offensive funding of $1.6 million for on-ground works.

A National Strategy Workshop held in September 2006 has collated achievements and identified national goals and actions for future action. A current challenge will be to revise the national strategy in a manner which reflects and enhances current community and government momentum.

Introduction

Prickly acacia (*Acacia nilotica* subsp. *Indica*) is a thorny tree introduced from India and Pakistan in the 1890's. It was deliberately propagated in Northern Australia as a fodder and shade tree from the 1920's to the 1960's.

Since the late 1960's however, prickly acacia has progressed to become a major weed and is now known to infest over 6.6 million hectares of Australia. Dense thickets cause significant production losses as well as environmental impacts. The majority of prickly acacia distribution occurs in Queensland (Qld) with outlier infestations in Northern Territory (NT), Western Australia (WA) and South Australia (SA).

Over 75% of the Australian mainland is susceptible to invasion by this weed. With predicted climate change, including increased minimum temperature and a reduction of frosts, it is expected that the potential for prickly acacia to spread further south will increase.

In 2001, a National Prickly Acacia Strategic Plan was developed. The vision of this plan is that prickly acacia is contained and its impacts reduced to a minimum. The following four goals were developed to achieve this vision:

- Prickly acacia is prevented from spreading
- The adverse impacts of established prickly acacia infestations are minimised
- National commitment to prickly acacia is maintained
- Prickly acacia management is coordinated at a national level

National coordination of prickly acacia commenced in December 2001 with the formation of the National Prickle Bush Management Group (NPBMG). This group, comprising representatives from Qld, NT, WA, NSW and SA, oversees implementation of the national strategies for prickly acacia as well as two other WONS; namely mesquite and Parkinsonia. A full time National Coordinator has been employed since April 2002.

Since the recognition of prickly acacia as a Weed of National Significance, investments totalling about $1.6 million have been provided for its management by the Australian Government. This funding has been more than matched by contributions from state and territory agencies and local government. During 2006-2007 major new investments occurred through the Queensland Blueprint for the Bush – Pest Offensive program and other state and territory initiatives. The financial contribution of communities and landholders to prickly acacia has been significant and is increasing.

The aim of this report is to highlight and promote the successes of the 2006-07 year for the implementation of the prickly acacia strategic plan.

GOALS AND ACHIEVEMENTS IN 2006 – 2007

GOAL 1 PREVENT THE SPREAD
Desired outcome Prickly acacia is prevented from spreading

To prevent the spread of prickly acacia, five key action areas were addressed during the 2006-2007 year. These were: awareness and early detection, surveys and monitoring, strategic control, prevention of stock movement of seed and legislative support and enforcement.

Awareness and early detection
During 2006 - 2007 a national education and awareness campaign was commenced with the support of Defeating the Weeds Menace (DWM) funding. The aims of this campaign were to increase awareness of the threat and impacts of prickly acacia, increase identification skills and facilitate early detection of new outbreaks.

The awareness campaign has comprised of newsletter articles, radio interviews (eg. ABC Kununurra regarding threat to the Kimberley), development and distribution of extension materials and field days. To date, the campaign has primarily used extension products previously developed including: road signage, display banners, posters, brochures, resin mounted pods and stickers. The development of new extension products will be a future requirement to progress awareness goals. The campaign has principally targeted landholders, indigenous stakeholders and weeds officers in non-core areas and also to a lesser extent the broader community.

Some of the key events used to facilitate awareness and early detection aims include:

- Barkly Tableland Technical Workshop and Field Day held in Tennant Creek NT (June 2007).
- Cape York Weeds and Feral Animal Forum – held in Weipa Qld (November 2006).
- Qld regional pest advisory group meetings in Windorah (October 2006), Mount Isa (November 2006) and Burketown (May 2007).
- NSW Prickle Bush Working Group meetings in Burke (November 2006) and Broken Hill (April 2007).

These events were well attended by a combined total of approximately 140 property managers and staff, indigenous community stakeholders, regional NRM group representatives, and local government and agency officers. This means that there are at least 140 stakeholders better skilled to identify and address new outbreaks of prickly acacia that may occur.

No new outbreaks could be attributed directly to the awareness campaign during the past year, although many had been detected in previous years.

Surveys & monitoring
The awareness campaign was complemented by surveys in key areas of the lower Gulf of Carpentaria region (Qld), Gayndah district (Qld), Desert Channels region (Cooper, Thomson and Barcoo rivers Qld), Georgina River - Barkly region (NT), Arid Lands region (SA) and Halls Creek district (WA). It is estimated that over 1 million hectares were surveyed for prickly acacia. Through this work, new outbreaks have been detected on at least 20 properties. The survey data has contributed to our distribution knowledge with national maps updated to reflect findings.

In both Qld and the NT, regular monitoring of roadside reserves has continued. Contractors have been engaged during the year to control prickly acacia in all key areas. Additionally, the Qld Department of Main Roads has extended its work to include the treatment of declared weeds associated with old 'borrow pits'. These borrow pits had previously been a potential seed source to adjacent properties.

Strategic control
A key achievement of 2006 – 2007 is that all known infestations outside of Qld are under active management.

All known mature infestations have been treated at the one SA site but follow-up control of seedlings is an ongoing priority. All known infestations in NT remain under active management by landholders supported through Landcare and the NT Department of Natural Resources, Environment and the Arts (NT NRETA).

In WA, four sites are being actively managed with the Durack River site in the East Kimberley requiring ongoing management. This site benefited from $170,000 in funding from the WA Department of Environment and Conservation during the past twelve months. The remoteness of the East Kimberley infestation poses additional challenges for the control program. Increased resources for control and surveillance are required due to access constraints while labour shortages, training and ongoing planning for control in the wet season requires high levels of commitment from stakeholders.

In Qld, major on-ground strategic control projects have commenced in the Burdekin, Fitzroy, Gayndah, Southern Gulf and Desert Channels regions. These projects have been funded through the Queensland Pest Offensive and DWM programs. The area of prickly acacia estimated to have been controlled directly through these funding programs is estimated at greater than 100,000ha.

Anecdotal information suggests that landholder funded control outside of the national containment line varies. One property in the lower Gulf of Carpentaria region has expended $100,000 over the previous two years without any funding support.

Specific areas have been targeted for eradication and recognised as nationally strategic by the NPBMG and respective lead agencies. There is strong community-regional-agency cooperation, collaboration and motivation to ensure this goal is achieved. However, due to soil seed loads, extensive monitoring and follow-up over a number of years may be required before eradication can be claimed at any particular site.

The national coordinator, in conjunction with agency-local government weeds officers and research staff, has provided ongoing technical advice regarding best practice management at most of the key national project sites.

Prevent stock movement of seed
Practically all long distance movement of prickly acacia seed may be attributed to stock or contaminated stock truck movement. As a result, the short and long distance movement of stock from core infestation areas has a major implication on prickly acacia's ability to establish in new areas.

A major achievement of 2006 -2007 has been the announcement of proposed new washdown facilities for cattle trucks at Julia Creek and Ilfracombe and the upgrading of a facility at Cloncurry. These three sites border the core infestation area and will help reduce the risk of invasion into the NT and coastal/southern Queensland. These infrastructure projects were funded through the Qld Pest Offensive program to a total of $229,000.

Within the core infestation area in Qld, landholders are required to utilise vendor declaration forms when moving stock potentially contaminated with prickly acacia seed. However, the level of compliance appears to be low and no major evaluation has been undertaken of prickly acacia seed spread prevention. Landholders appear to be conscious of weed seed spread issues and take preventative measures but limited evaluation has occurred to quantify or qualify such actions.

Increased awareness of the threat of prickly acacia has led many properties in the NT Barkly region to quarantine stock when they are received or prior to their transport. In addition, there are improved border protocols in association with NT NRETA and the WA Department of Agriculture and Food.

As an indicator of prickly acacia spread prevention there appear to be less outbreaks of prickly acacia being recorded this year than previous years even though more effort is being made through awareness, monitoring and surveys.

Legislative support and compliance

Prickly acacia is now a declared weed in every state and territory in Australia. In Qld, WA, NSW and the NT the legislation supports specified management actions. The sale and trade of prickly acacia is prohibited in all other states and territories. In SA, there is scope to strengthen the legislation to prohibit movement, require notification and require destruction of prickly acacia on properties. At present it is only prohibited to spread prickly acacia by sale.

The Queensland *Land Protection (Pest and Stock Route) Act 2002* and NT species management plans are assisting with compliance procedures. In Qld, 90% of Local Governments (LG) employ a weed officer and the state employs regional land protection officers who undertake compliance as part of their role. Enforcement training is delivered to both of these groups. However, compliance is rarely used in Qld with state agencies and local governments opting for a more cooperative, partnership approach to the management of prickly acacia.

GOAL 2 REDUCE THE IMPACT

Desired outcome The adverse impacts of established prickly acacia infestations are minimised

The core infestation of prickly acacia encompasses an area of about 6.6 million hectares and is bounded by the National Containment Line in western Queensland. While eradication may never be economically feasible there remain a range of activities that can be undertaken to reduce the impact of such established infestations. In 2006 – 2007, these actions included containment, best practice adoption and integrated management, and biological control research.

Containment

The implementation of effective containment plans for prickly acacia is reliant on an effective partnership between the NPBMG, the two relevant regional NRM groups (Southern Gulf Catchments and Desert Channels Queensland), the Qld Department of Primary Industries and Fisheries (QDPIF), local government and landholders. During 2006-2007 these stakeholders have met on a regular basis to identify strategic priorities and to plan and implement projects.

Three major projects totalling $600,000 ($150,000 DWM & $450,000 Qld Pest Offensive) were commenced in the past twelve months to affect containment. Within the Desert Channels region, attempts are being made to reduce infestations within the shires of Longreach, Barcaldine, Aramac, Isisford and Winton. Within the Southern Gulf Region, control work has focussed on McKinlay Shire. The major outcomes of this project are that the lower Lake Eyre Basin and lower Gulf of Carpentaria regions are protected from invasion – safeguarding an area of about 1.1 million km^2.

Anecdotal evidence suggests there are moderate but increasing levels of individual control activity by landholders within or adjacent to the National Containment Line. It is evident that some control is occurring regardless of funding provision. However, where funding has been available, it has provided a catalyst for a more coordinated, planned approach across broader areas.

Best practice adoption & integrated management

Best practice adoption and integrated management initiatives have continued through: national manual distribution, individual property liaison, group workshops and other complementary initiatives of state/territory government.

The Prickly Acacia National Case Studies Manual (2004) and Prickly Acacia Best Practice Manual (2000) remain the authoritative reference guides for all stakeholders managing this weed. During 2006-2007 widespread distribution of these manuals continued with about a further 200 being delivered. It should be noted that all 1200 properties within the containment line were posted these manuals in 2004.

Weed management has been incorporated into QDPIF Grazing Land Management Manual/ workshops (Qld). This highlights the impacts of prickly acacia and the need for integrated weed management and stock hygiene protocols to reduce weed spread. Ten workshops have been held to date in the Mitchell grasslands. In addition, the NT has been conducting Rangeland Management Schools and Grazing Land Management Courses which contain weed components.

During the reporting period, the continuation of the Great Artesian Basin Bore Capping Project has assisted the management of prickly acacia. Prickly acacia growing in association with open bore drains produce significantly more seed than those growing on the open Mitchell grass downs. As a result, such infestations have been fuelling the spread of prickly acacia for many years. The systematic capping of these bores is not just having a benefit in water management but also complementing weed management objectives.

The evaluation of best practice adoption/integrated management at a property level has been limited with a reliance on anecdotal data. To help improve this situation, a Monash

University study commenced into landholder attitudes to prickly acacia and the history of invasion.

Individual case studies of property based best practice adoption/integrated management are being collated. In one recent example, a property owned by Australian Agricultural Company (AA Co) at Julia Creek has invested $100,000 annually over 2005-2007 to reduce the prickly acacia impact on prime Mitchell Grass Downs country. With buoyant beef production prices, AA Co has engaged goat grazing and mechanical and chemical control options into an integrated control program that has provided an additional benefit of returns on investment from goat sales. Large areas have been initially cleared by mechanical and chemical means while utilising goats to reduce follow up demands.

In Qld, alternative energy companies continue to show interest in utilising prickly acacia as a resource for bio-fuel production. However, the economics of such ventures are unproven and no major initiatives are underway. Information to support feasibility studies are sourced through the National Coordinator and the QDPIF. Such initiatives require a harvesting permit under the Queensland *Land Protection (Pest and Stock Route Management) Act 2002* with permit conditions included to minimise the risk of weed seed spread during harvesting and transport. The cost of regrowth management is also under estimated by most interested parties and is a deterrent of such projects.

Biological control

A major action was the commencement of a new biological control research project for prickly acacia. Funded by Meat & Livestock Australia and the Queensland Government Pest Offensive program, this project aims to conduct explorations for new biocontrol agents in India. Preliminary investigations have been made regarding climate and subspecies matching with the Australian situation. Research approvals and inter-country relationships are also being established with Indian authorities.

In June 2007, the last releases were made of the leaf feeding moth *Cometaster pyrula* in Qld. Over a period of 2.5 years approximately 43,000 larvae and 1700 adults were released, mainly on coastal infestations. Field establishment of this insect has not been confirmed, but field released larvae have persisted on trees, feeding damage has been observed and small numbers of pupae have been recovered from soil beneath trees.

Over 2006 – 2007 field evaluation of the impact of the biocontrol agent *Chiasmia assimilis* on seedlings has been undertaken. Around the Home Hill area in Qld, *C. assimilis* has become well established, however, this is not being reflected in areas further inland. The study showed that the insect had a significant impact on the growth of seedlings located under the canopy of adult prickly acacia trees, but not those in open areas. Results to date indicate the agent will not provide effective control of isolated seedlings away from a main infestation. Given this, *C. assimilis* may not be as effective as initially hoped in slowing spread of the prickly acacia to new areas.

A simulated herbivory study was completed to help determine the kind of damage most likely to have a negative impact on prickly acacia plants. Young prickly acacia were subjected to single and repeated treatments that included leaf defoliation, damage to roots and shoots or combinations of treatments such as both root and shoot damage. The results are being analysed and will be used to select the types of agents to be imported from India.

Over the last 12 months, four international scientific papers (Appendix 2) were published on the biological control of prickly acacia. Input was provided by research staff from QDPIF's Tropical Weeds Research Centre and Allan Fletcher Research Station.

Instances of natural dieback in prickly acacia have also been reported at isolated sites in North West Qld. In the past this dieback has been attributed to low soil moisture caused by extended drought, however, there have been some comparisons with studies into Parkinsonia dieback where soil pathogens have been identified as a major causal agent. Research needs to be undertaken to evaluate this phenomenon in prickly acacia.

Challenges
The approach to promoting best practice adoption and integrated management remained partly opportunistic during 2006 – 2007. Lack of experienced weed practitioners, remote area logistics and lack of established landholder groups (eg. landcare) hindered to some degree the speed and capacity to affect stakeholder skills, knowledge, attitudes and aspirations (KASA). However, there remains scope for major best practice adoption field days in strategic locations to provide a catalyst for change. There is also scope for further evaluation of KASA changes through landholder surveys.

GOAL 3 HARNESS NATIONAL MANAGEMENT
Desired outcome National commitment to prickly acacia is maintained

During 2006-2007, the links between regional, state and territory efforts to the national strategy have been appreciably strengthened. These links have been enhanced by the availability of resources and complemented by a mapping series to maintain commitment from the local to national levels.

Planning and management
State, territory and regional plans have been developed for prickly acacia particularly in the NT (Territory action plans), Qld (state policies and regional plans) and WA (regional plans).

Successful regional delivery of key aspects of the national strategy has continued through the effort and support of eight (8) regional NRM groups including Desert Channels Qld, Southern Gulf Catchments, Fitzroy Basin Association, South West NRM, Western CMA, Lower Murray Darling CMA, WA Rangelands NRM, South Australian Arid Lands NRM. All eight of these regional groups have identified prickly acacia as a priority weed threat with six aiming for/or maintaining a prickly acacia free region.

Additionally, major achievements are being made through diverse areas such as the implementation of the Katherine Regional Weed Management Strategy (NT) and the incorporation of prickly acacia into 46 local government pest management plans in Qld.

During 2006-2007 there has been increased interaction between the NPBMG, National Coordinator and lead agencies with regional groups. This has included National Coordinator participation and presentations at a Cross-Catchments Weeds and Pest Animal Forum in Longreach (Qld), a NSW Prickle Bush Working Group meeting at Broken Hill (NSW), a Rural Lands Officers Group meeting at Windorah (Qld), and two meetings of the Gulf Catchments Pest Task Force at Burketown and Mount Isa (Qld).

Over 90% of Australia's prickly acacia infestations occur within the Southern Gulf Catchments and Desert Channels regions of Queensland. Community consultation undertaken by Desert Channels Qld has identified that land mangers see weed invasion as the highest threatening process of all NRM issues currently faced. There has been a particular focus on these two regions in addition to their associated regional pest management groups.

The Gulf Catchments Pest Task Force and the Rural Lands Officers Group of Western Qld involve a consortium of state government, local government and regional representatives who undertake strategic planning and coordination actions for priority weeds and pest animals. During the reporting period, these two groups have been lobbied by the National Coordinator and lead agencies to address potential deficiencies to strategy implementation including: priority infestation mapping, property inspections, local awareness campaigns and better planning.

Mapping
The National Coordinator, through the NPBMG and the assistance of the QDPIF Pestinfo unit, has coordinated mapping of national prickly acacia distribution since 2004.

The current map series includes five map types: national distribution; potential distribution; national distribution with regional NRM boundaries; national distribution with funding action; and national distribution with management actions. Some of these maps have been previously published in the Prickly Acacia National Case Studies Manual (2004). During the reporting period, these maps have also been made available upon request to a range of stakeholders including state and federal agencies, regional groups, local government, landcare groups and individual landholders.

Prickly acacia mapping has been tailored according to its proposed uses from national planning and prioritisation to project implementation and individual property weed management. The ongoing priority is to ensure national maps remain current, mapping of newly detected and isolated infestations is undertaken with urgency and mapping occurs for project purposes.

NT weed data collection guidelines have been developed to link in with the national weed data collection guidelines. Community groups are now collecting weed data to feed into the NT Weed Spatial Database. All known infestations external to Queensland have now been mapped with several new occurrences being added during the reporting period.

A remote sensing project has recently been announced under the Qld Pest Offensive program. This project aims to map the core infestation area and evaluate changes to density and extent over the past 5 to 10 years. This is hoped to aid evaluation of national strategy implementation.

Maximising available resources
Revised national priorities for prickly acacia were determined in late 2006 with many of these addressed through the support from the Australian Government's Defeating the Weeds Menace (DWM) program, the Queensland Governments Blueprint for the Bush – Pest Offensive and regional NLP funding programs.

Through the DWM program four projects were funded (some targeting multiple WONS) with an estimated $200,000 directly benefiting prickly acacia goals.

The ability of stakeholders to attract $2.8 million in Queensland Pest Offensive funding for prickly acacia management was a major boost during 2006-2007. Approximately $1.6 million was made available for strategic control, $229,000 for washdown facilities, $772,000 for biological control research and $247,000 for remote sensing. These projects will be implemented over the 2007 – 2009 period.

Australian and state government funding provides an incentive for stakeholders to contribute to effective and coordinated on-ground control program leading to increased community ownership of prickly acacia management over the next two years. It is noted that only approximately 20% of combined government funding was derived from the Federal Government during 2006-2007.

Challenges
Further capacity building is required at regional and local government levels due to a lack of resources, skills shortages and logistics of remote area operations. There are also opportunities to improve mapping/weed data recording at all levels.

Due to the size of the prickly acacia problem and community momentum, it is expected that strategy implementation will continue to have high resource demands. For this to occur, there is a need to further promote public benefit of public investment and increase the profile of prickly acacia to attract funding for long-term control.

GOAL 4 COORDINATE MANAGEMENT
Desired Outcome Prickly acacia management is coordinated at a national level

Formed in December 2001, the NPBMG is the key driver for the implementation of the prickly acacia strategic plan. During 2006-2007, active support to the group occurred through agency and community representatives from Qld, NT, WA, NSW and SA.

The NPBMG is modelled on a ‘working group’ that ensures strategy implementation rather than a traditional government-industry representative model that may be restricted to an advisory role. The broad expertise of the NPBMG sets a firm platform for leadership, based on technical expertise, tiered government visions, research, regional NRM and landholder/community engagement.

Combining the national coordination of prickly acacia with two other WoNS species (parkinsonia and mesquite) has seen increased efficiencies through management of these ‘prickle bushes’ through a single process.

The group met three times during the reporting period including two teleconferences and a meeting. In addition, the chair of the NPBMG has actively participated in key events such as the WoNS Parliamentary breakfast and a WoNS Coordinator/Chairs Committee meeting in Canberra.

The NPBMG has continued to ensure a national network exists for the management of prickly acacia including collaboration with federal, state and local governments to optimise the awareness of the threat posed by prickly acacia.

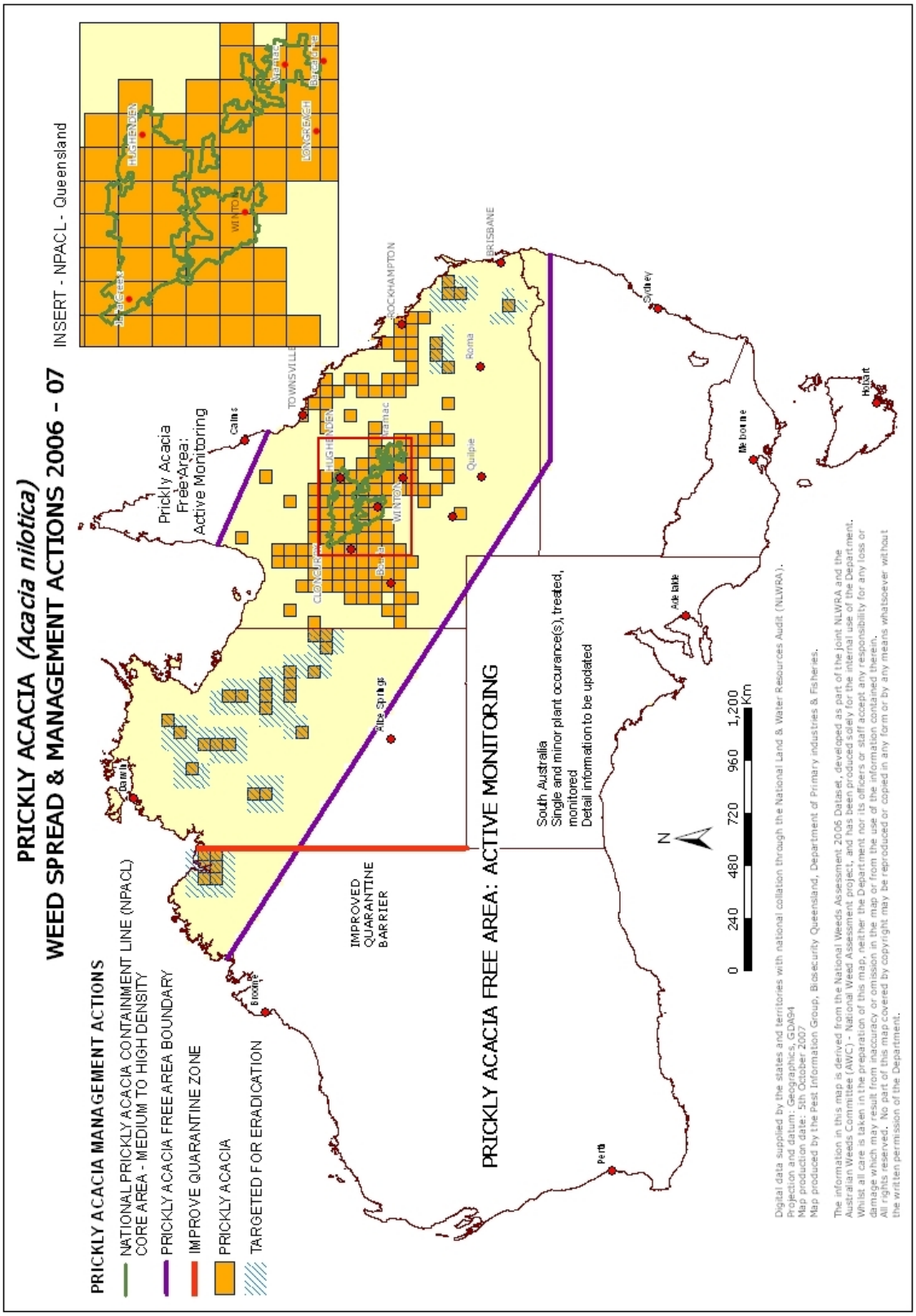
In late 2006, the NPBMG identified strategic control and capacity building, awareness and early detection, biological control research, and review and redevelopment of the national strategy as key aspects that required progress. The group also identified funding gaps and priority areas for consideration by available funding programs.

A major coordination achievement was the facilitation of a National Strategy Workshop in Townsville. The objective of the workshop was to evaluate progress towards implementation of the national 'prickle bush' WONS strategies and develop a framework for coordinated action into the future. A total of 26 participants attended the workshop including representatives from Qld, NT, WA, NSW and SA. As a result of the workshop, a large volume of data has been collated regarding strategy outcomes and a range of new actions identified for the future.

Key challenge

To maintain the high level of momentum achieved, the redevelopment of the national strategy for prickly acacia will need to be a future focus of NPBMG business. Many actions under the original strategy have become irrelevant, have been achieved and/or need to be revised. Uncertainties regarding the national strategy review process have delayed redevelopment to date with no progress since the National Strategy Workshop in September 2006.

APPENDIX 1 Prickly Acacia Distribution and Management Actions 2006 – 2007



APPENDIX 2

Research papers

Palmer, W.A., Lockett, C.J., Senaratne, K.A.D.W. and A. McLennan. 2007. The introduction and release of *Chiasmia inconspicua* and *C. assimilis* (Lepidoptera: Geometridae) for the biological control of *Acacia nilotica* in Australia. Biological Control 41: 368-378.

Palmer, W.A. and A. McLennan. 2006. The host range of *Isturgia deerreria*, an insect considered for the biological control of *Acacia nilotica* in Australia. African Entomology 14: 141-145.

Palmer, W.A. and K.A.D.W. Senaratne. 2007. The host range and biology of *Cometaster pyrula*; a biocontrol agent for *Acacia nilotica* subsp. *indica* in Australia. Biocontrol 52: 129-143.

Palmer, W.A. and A.B.R. Witt. 2006. On the host range and biology of *Acizzia melanocephala* (Hemiptera: Psyllidae), an insect rejected for the biological control of *Acacia nilotica* subsp. *indica* (Mimosaceae) in Australia. African Entomology 14: 387-390.

Acknowledgement

The Queensland Department of Natural Resources and Water (QNRW) was providing lead agency support for prickly acacia national coordination until the 1st March 2007. Due to machinery of government changes, this is now being undertaken by the Queensland Department of Primary Industries and Fisheries (QDPIF).

Attachment A **Budget -** Coordination figures are split between prickly acacia, parkinsonia and mesquite

* Additional funds were granted for National Strategy Workshop

	200607	Planned budget		Actual Expenditure	
	Employees & Positions Held	**Recipient's Contributions** (without GST)	**Funds paid by the Commonwealth** (without GST)	**Recipient's Contributions Expended** (without GST)	**Commonwealth Funds Expended** (without GST)
	Co-ordinator salary and on-costs		88 950		91 778
	Management, admin support, research officers	59 500		60 000	
	Travel Coordinator		16 500		13 972
	Management Group travel & meeting expenses	82 500	11 000	82 000	*3054
	NRM groups, state /territory community support inputs	43 200		43 000	
A	**Total Employment Costs**	**185 200**	**116 450**	**185 000**	**108 804**
	Operating Cost Items	**Recipient's Contributions** (without GST)	**Funds be paid by the Commonwealth** (without GST)	**Recipient's Contributions Expended** (without GST)	**Commonwealth Funds Expended** (without GST)
	Vehicle rental		11 000		8512
	General operating costs		7 000		4738
B	**Total Operating costs**		**18 000**		**13 250**
C	**Total Cost (without GST) (A+B)**	**185 200**	**134 450**	**185 000**	**122 054**
D	**GST (10%)**	**18 520**	**13 445**	**18 500**	**12 205**
E	**Total Cost (including GST)**	**203 720**	**147 895**	**203 500**	**134 259**

Budget: Year 1 (2006-07)

National Strategy Workshop – September 2006

	Employees & Positions Held	Proponent Funds (without GST)	Australian Government Funds Sought	Recipient's Contribution Expended without GST	Commonwealth Funds Expended (without GST)
	National strategy development workshop – NPBMG 12 participants x 5 days (agency & community reps Qld, NT, WA and NSW	$21,000		19 250	
	National workshop participation – additional key stakeholders 12 x 5 days	$21,000		21 000	
	National mapping – contributions to process by Qld, NT, WA, NSW, SA and Vic (includes data collection, surveys, data transfer)	$14,000			
	National map compilation and production QNR&M Project Manager PO4 @ 0.05 FTE		$4,450		
	Evaluation planning & process development 12 participants x 1 day	$4,200			
A	**Total Employment Costs**	**$60,200**	**$4,450**	**$40 250**	
	Operating Cost Items	**Proponent Funds** (without GST)	**Australian Government Funds Sought**	**Recipient's Contribution Expended without GST**	**Commonwealth Funds Expended (without GST)**
	Workshop facilitator & evaluation technical support		$7,000	7 000	
	National strategy revision workshop travel expenses		$30,000		29 878
	Audit/financial arrangements	$500			2 323
B	**Total Operating costs**	**$500**	**$37,500**	**$7 000**	**$32 201**
D	**Total Cost (without GST) (A+B+C)**	**$60,700**	**$41,950**	**$47 250**	**$32 201**
E	**GST (10%)**	**$6,070**	**$4,295**	**$4 725**	**$3 220**
F	**Total Cost (including GST)**	**$66,770**	**$46,145***	**$51 975**	**$35 421**