Wet Tropics landholders forest management values and practices

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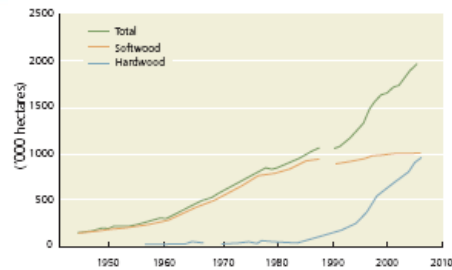Department of the Environment, Water, Heritage and the Arts

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Overview

- Timber plantations in Australia and the Wet Tropics
- Review of vegetation management activities
- Profiling of landholders and extension
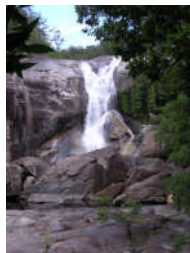
Cumulative plantation area by species group

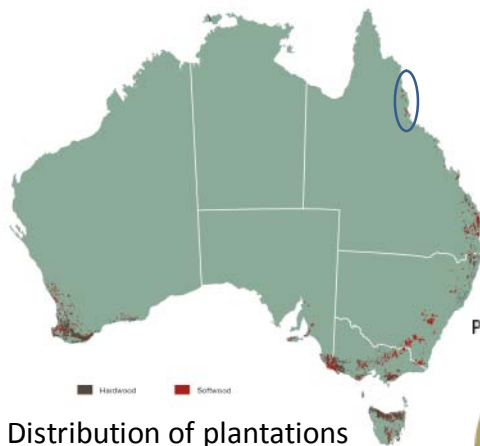
Land use	Area (million hectares)	Proportion of total land area
Plantation forests	1.7	0.2%
Agriculture		
• Agricultural and horticultural crops	26.7	3.5%
• Grazing	442.4	57.5%
Total	469.1	61%
Native forests and woodlands		
• Public native forest where timber production is permitted	11.4	1.5%
• Forests in nature conservation reserves	21.5	2.8%
• Other categories	129.8	16.9%
Total	162.7	21.1%
Total land area	766.0	100.0%

Sources: Australian Bureau of Statistics; Bureau of Rural Sciences.
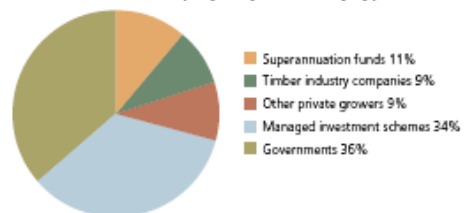

Distribution of plantations

Plantation ownership by major industry type 2008

- Superannuation funds 11%
- Timber industry companies 9%
- Other private growers 9%
- Managed investment schemes 34%
- Governments 36%

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Port Douglas

Cairns

Dimbulah

Atherton

Yungaburra

Herberton Malanda

Millaa Millaa

Ravenshoe

Mount Garnet

Flying Fish Point

Tilyan

Kurrimine

Mission Beach

South Mission Beach

Tully Heads

Three stages of forest utilization

The early history of forestry in north Queensland - pre-1890, 1890 to World Heritage listing in 1988, and after 1988;

- the logging of red cedar and conversion of land with relatively fertile soil to agriculture for closer agricultural settlement;

- the early and mainly unsuccessful conservation efforts, notably of Tully in the 1880s and Swain around 1920;

- Experimental plantations in Wongabel forest 1920s to 1940s

Timber industry in FNQ

- Initial reliance on State forest resources for supply
- In 1970's about 30 fixed mills and 120 portable mills in region.
- 36 tree species were being utilized for timber by 1940 (with most of the timber coming from 10 'prime cabinet-woods'), and that 103 species were regarded as merchantable in the 'compulsory list' of the State Forest Service in the 1950s.
- Limited development of plantation resources in Far North Qld relative to other states and South East Qld

Timber industry in FNQ

- Major restructuring following Wet Tropics World Heritage nomination
  - One main processor based on conifers (Ravenshoe and Emerald Creek)
  - approximately 20 smaller fixed and portable hardwood processors in FNQ
- Some timber processing also takes place in the more sparsely settled areas further north
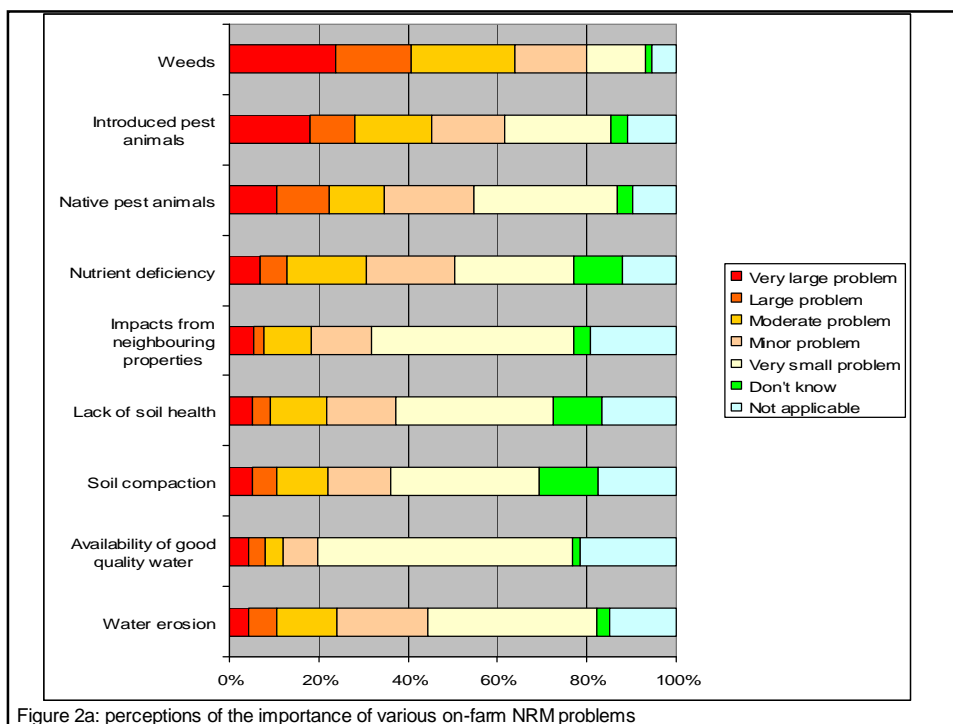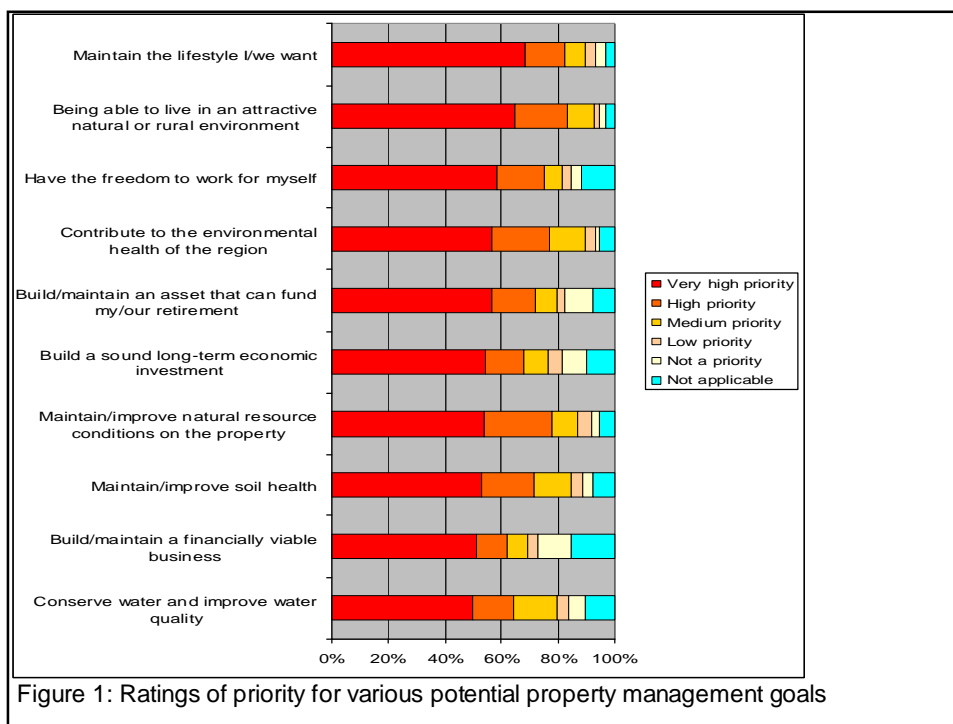
Research activities

- Representative mail based surveys of rural landholders in the Wet Tropics (1999, 2007-8)
- Review of the vegetation management attitudes, practices and extension preferences of lifestyle landholders in peri-urban and 'high amenity' rural areas
- Case studies of 'lifestyle' landholders vegetation management attitudes and practices
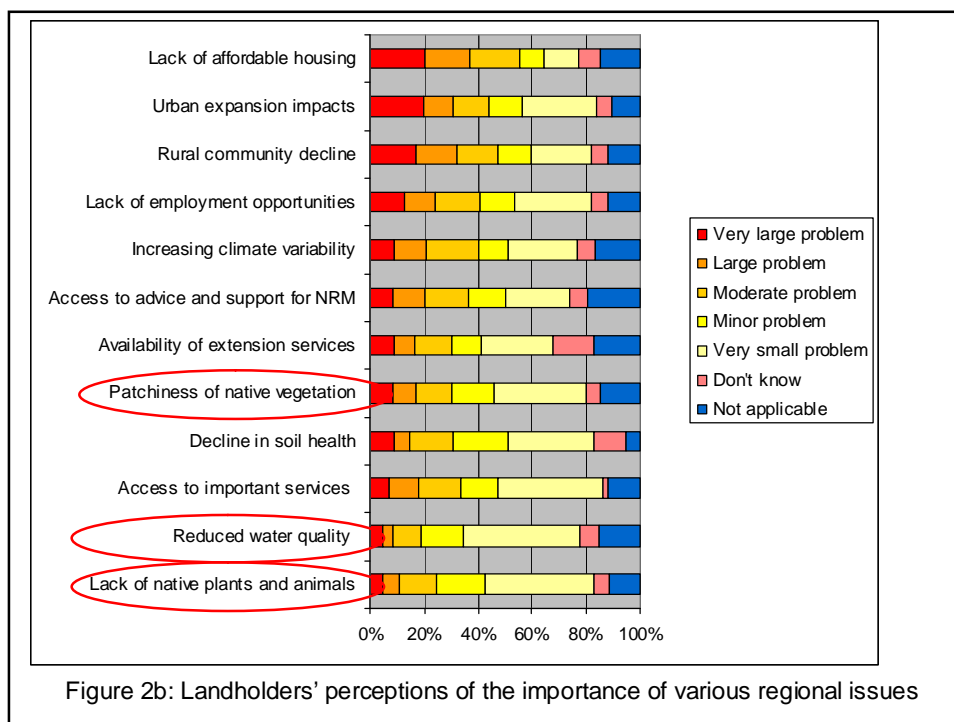

Analysis of the postal survey responses

- Basic description of survey responses
- Factor analysis of ratings of importance for management objectives
- Profiling of the respondents by
  - Primary purpose for land ownership and scale of land owned
  - 'Social marketing' (prime prospect) cluster analysis
  - The social marketing cluster analysis was undertaken using the criterion of 'interest' in natural resource management issues and 'engagement' in recommended practices

Figure 1: Ratings of priority for various potential property management goals

Figure 2a: perceptions of the importance of various on-farm NRM problems

Figure 2b: perceptions of the importance of various on-farm NRM problems

Figure 3a: Landholders' perceptions of the importance of various regional issues

Figure 2b: Landholders' perceptions of the importance of various regional issues

Marine and Tropical Sciences Research Facility

Table 1. Importance placed upon various reasons for planting trees by landholders in far north Queensland

Reason for planting	*n*	Mean rating*
To protect and restore land	172	4.0 a
To protect the local water catchment	170	4.0 a
To attract wildlife and birds	169	3.6 b
Personal interest in trees	170	3.4 bc
To improve the look of the property	170	3.3 c
To increase the value of the farm	166	3.2 c
To create windbreaks	168	3.1 c
Legacy for children or grandchildren	166	3.1 c
To make money in the future	167	2.7
To diversify farm business	163	2.4 d
Superannuation or retirement fund	164	2.2 d
To provide fence posts	161	1.5

*Rating scale was 1 = not important, 5 = very important.

Table 2. Factor matrix of the reasons for planting trees by landholders in far north Queensland

Scale name	Scale mean	Reasons for planting trees
Commercial (0.815)	2.36	To make money
		Diversify farm business
		Superannuation
		Increase farm value
		Fence posts
Personal satisfaction (0.731)	3.30	Improve look of property
		Personal interest in trees
		Attract wildlife and birds
		Legacy for children/grandchildren
		Create windbreaks
Conservation (0.866)	3.96	Protect water catchment
		Protect and restore land

| Scale name	Scale mean	Obstacle
Economic problems (0.873)	3.33*	Uncertainty about future timber prices
		Fear that regulations will prevent future harvest
		Mistrust government especially after WHL
		Lack of information about likely returns
		Low current timber prices
		Uncertainty about future timber prices
		Long wait for returns
Satisfied/flexibility (0.816)	3.32*	Flexibility for future land use reduced
		Do not want to remove land from existing profitable use
Lack advice (0.636)	2.28	Lack of expert advice on how to grow trees
		Lack of information on species and markets
Lack labour, finance, equipment (0.664)	2.94	Labour required
		Finance required, lack of capital
		Lack of necessary machinery
Fire/pest risks (0.718)	2.06	Fire risk
		Pest risks
Poor land (0.660)	1.60	Trees do not establish well, unsuitable
		Land unsuitable

Views about native vegetation management

- 80% of respondents agreed with the statement
  'native forest areas improve the look of my property'

- 70% of respondents agreed with the statement
  'I have a personal interest in native forests'

- Just over 30% of respondents agreed with the statement that it is better to clear forest regrowth where possible so the government does not prevent use of that land for agriculture in the future

- 25% of respondents believe that their forest areas are suitable for harvesting timber and that this could be a profitable enterprise in the future

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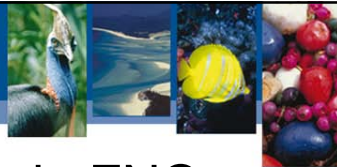
Small-scale plantations in FNQ

- Some hardwood plantation development activity through the Community Rainforest Reafforestation Program and other schemes:
  - 1780 ha on about 600 farms under the CRRP,
  - 850 ha under the Wet Tropics Tree Planting Scheme,
  - 160 ha under the Private Joint Venture Scheme
  - less than 100 ha under the Treecare program.
- Terrain Pty Ltd working with QDPI and others to develop a regional timber industry development strategy
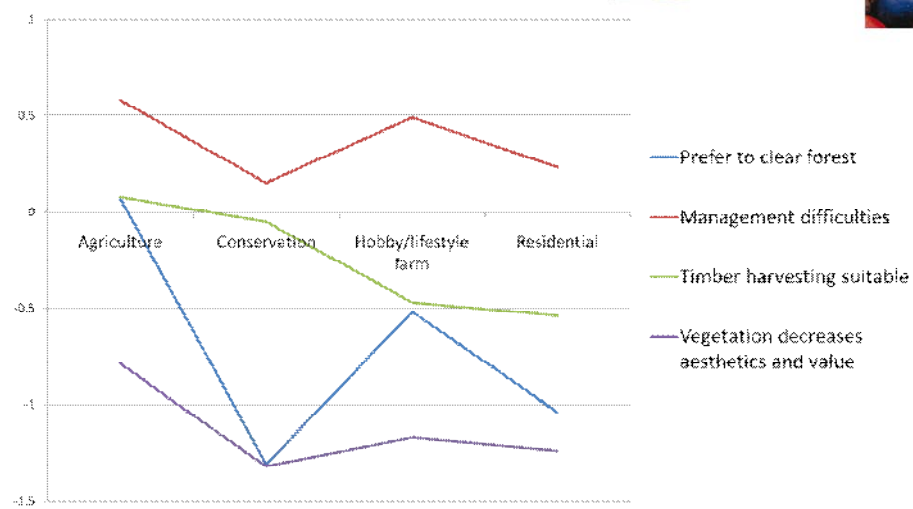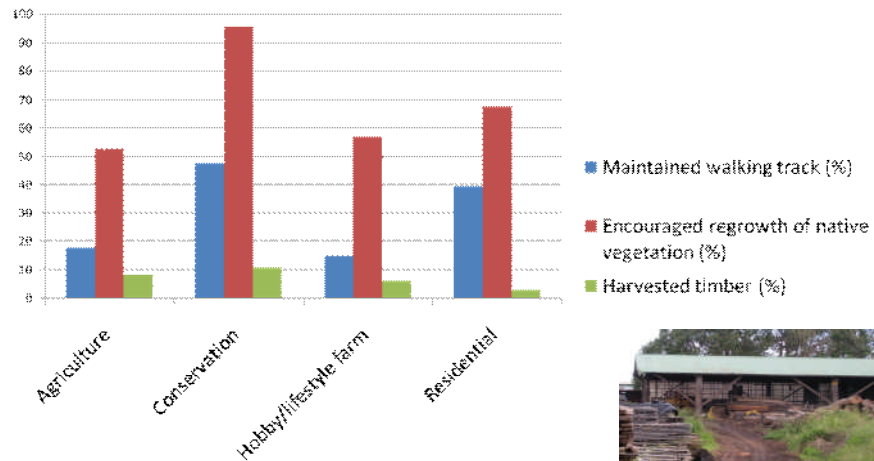
Forest management activity by purpose for ownership

Figure : Ratings of agreement with vegetation management scales
-2 – strongly disagree, 2 – strongly agree

Characteristics of the landholder groups
Overview of groups

- 1 - 'concerned but unengaged' group - 'prime prospects' for NRM programs.
  - high level of interest in NRM but have low levels of engagement in CRP's.
  - Approximately 20% of the sample.

- 2 - ' multiple objectives group' - good prospects for NRM programs
  - medium levels of interest and engagement.
  - make up a further 20% of the sample.
- 3 - the 'production orientated' group – important to maintain engagement
  - high levels of engagement but low interest in NRM issues.
  - Approximately 10% of the sample

- 4 - the 'disconnected and conservative' group - 'poor prospects' for NRM programs
  - Have low interest and low engagement in NRM activities.
  - 40% of the sample in this category
- 5 - 'model owners group'– already running NRM programs!
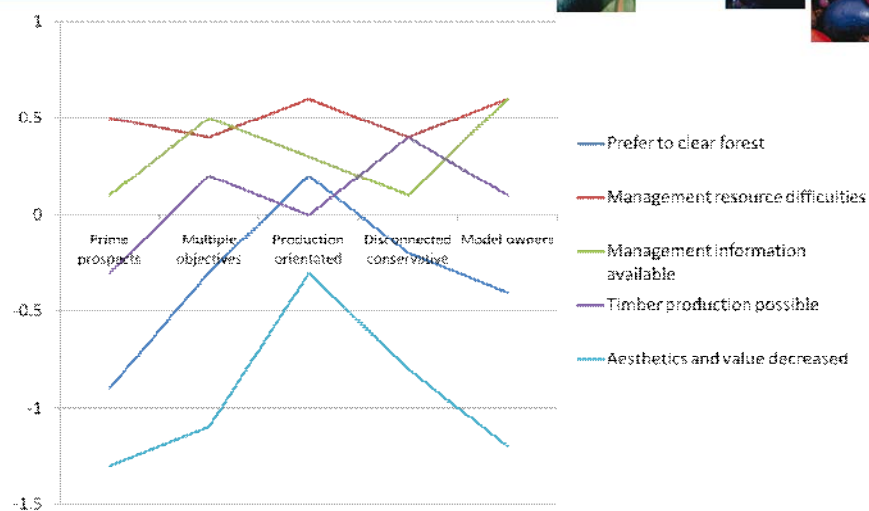 - high interest and engagement in NRM activities
  - 10% of the sample.

Figure : Ratings of agreement with vegetation management scales
-2 – strongly disagree, 2 – strongly agree

Forest management by cluster groups

Cluster group	Proportion of landholding under forest (%)	Encouraged regrowth (%)	Map of vegetation types (%)	Gather NTFPs (%)	Harvest timber (%)
Prime prospects	54	75	18	29	2
Multiple objectives	36	64	40	15	5
Production orientated	15	53	24	0	4
Disconnected conservative	54	43	13	13	12
Model owners	24	79	52	22	9
All respondents	44	59	25	16	7

Case studies of lifestylers' vegetation management

- Recommendations:
  - Support self-guided learning and planning;
  - Develop guidelines for best practice vegetation management (similar to industry codes of practice). Could help to assess 'progress' in surveys, be used to target funds and help to engage 'lifestylers' in NRM so they improve the quality of their forest management;
  - Distribute basic information to landholders at time of property purchase when they are planning and undertaking major management activities;
  - Allow flexibility for NRM programs in scale and timing of assistance measures,
  - Tie funds to results?

Project reports

- Further information available at:
    - Reef and Rainforest Research Centre Website:
        - www.rrrc.org.au – project 4-9-4
    - University of Queensland ESpace website:
        - www.espace.library.uq.edu.au

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