



## MTSRF Status & Trends of Biodiversity and Ecosystem Services

### Rainforest and Catchments

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Marine and Tropical Sciences Research Facility



## MTSRF Status & Trends of Biodiversity and Ecosystem Services

### • Objective:

*'To provide the knowledge and methods needed for accurate and up-to-date state of the region reporting on key biodiversity assets of North Queensland to support NRM planning and management of Wet Tropics'*

### • Tasks:

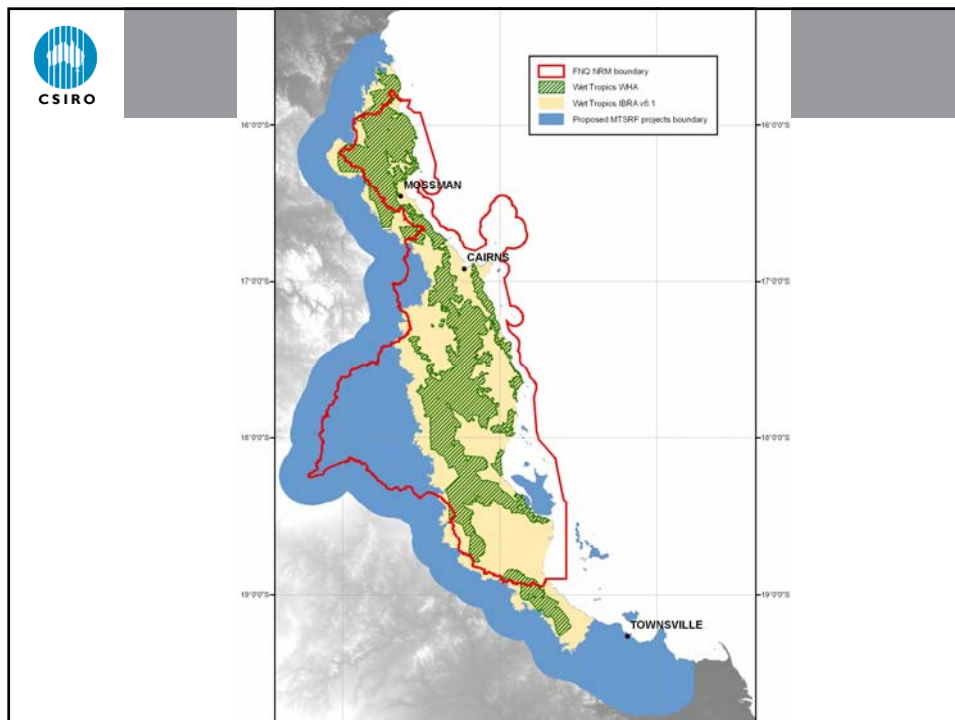
1. Synthesis of current knowledge and identification of gaps for key biological and environmental assets
2. Fill data gaps in conjunction with MTSRF *Threatened Species and Communities* and *Invasive Pests*
3. Design and test a monitoring program to track status and trends of key environmental assets



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### Four major outputs:

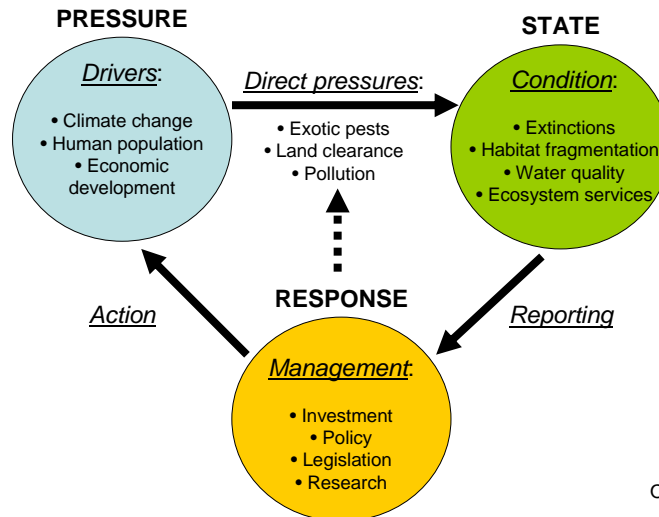
1. **Wet Tropics Management Authority:** State of the Wet Tropics World Heritage Area reporting to Commonwealth (*annual*) and UNESCO (*6 yearly*)
2. **FNQ NRM Ltd.:** State of the Region reporting and auditing for investment
3. **EPA:** State of the Environment reporting for Queensland (*4 yearly*)
4. **MTSRF Integrated Report Card:** Rainforest and Catchments





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### Conceptual framework: Pressure-State-Response

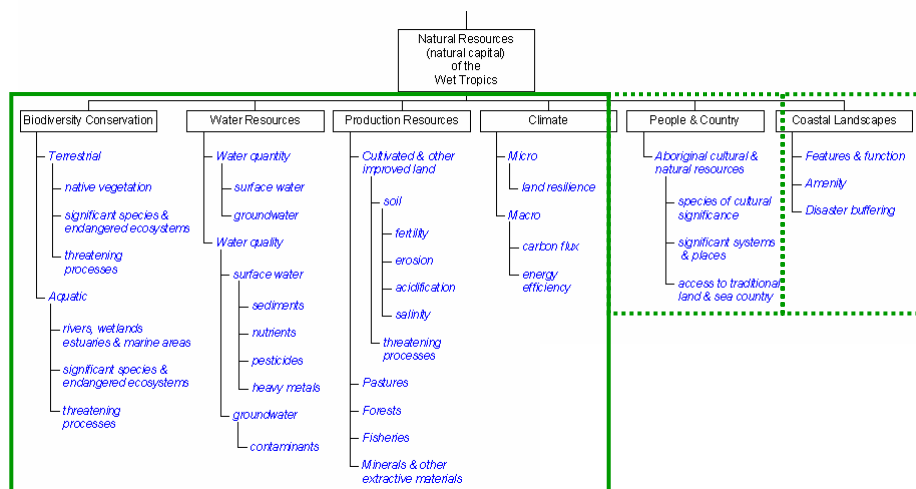


OECD 1999



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### Conceptual framework: Millennium Ecosystem Assessment





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### Further research questions 2007-2010:

- Can indicators be developed for Indigenous and non-Indigenous people to reflect well-being linked to biodiversity condition? [CSIRO Postdoc Leanne Cullen]

- Examples: people rely on biodiversity for

- Hunting
- Fishing
- Gathering
- Spiritual and cultural value
- Aesthetic pleasure



## MTSRF Status & Trends of Biodiversity and Ecosystem Services

### Key people

Title	Organisation	Role	FTE
Dr. James Butler	CSE	Social Ecologist	0.46
Dr. Chris Margules	CSE	Conservation Biologist	0.05
Dr. Dan Metcalfe	CSE	Tropical Plant Ecologist	0.17
Dr. Kristen Williams	CSE	Ecological Geographer	0.15
Dr. David Westcott	CSE	Ecologist	0.05
Petina Pert	CSE	Spatial Analyst	0.15
Andrew Ford	CSE	Botanist & taxonomic support	0.15
Matt Bradford	CSE	Plant ecology research support	0.15
Caroline Bruce	CSE	GIS & Data Management	0.23
Dr. Steve Williams	JCU	Biodiversity specialist	0.15
Prof Nigel Stork	JCU	Entomological biodiversity	0.10
Dr. Steve Goosem	WTMA	Project design	0.125
Dr. Mark o'Donohue	FNQNRM	Project design	0.05

- Aboriginal Rainforest Council, EPA, Birds Australia, Earthwatch

- Other MTSRF projects:

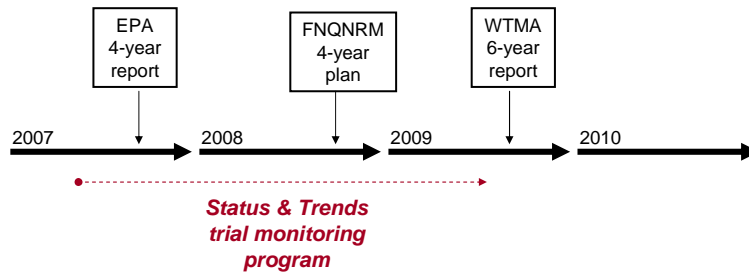
- Indigenous Landscapes, Climate Change, Strategic NRM Planning, Social Resilience...

- Ro Hill, Cathy Robinson, Dave Hilbert, Carla Catterall, Penny Whetton, John Herbohn, Tim Lynam, Helen Ross.....



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### Milestones 2006-10



## MTSRF Status & Trends of Biodiversity and Ecosystem Services

### Key research outcomes

1. Assessment of current condition of environmental assets for regional planning
2. Assessment of current pressures on environmental assets for regional planning
3. Approaches for linking social and ecological well-being
4. Template for transferal to other tropical rainforests and catchments
5. Linkage to social-ecological 'health check' of the region, and application to scenario planning



**THANK YOU**