



THE AUSTRALIAN NATIONAL UNIVERSITY

THE DEVELOPMENT OF SUSTAINABLE WILDLIFE ENTERPRISES IN REMOTE INDIGENOUS COMMUNITIES

Success Factors and Institutional Barriers

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What are the key factors which determine the viability of wildlife enterprises in remote Australia?

- 1. Overview of the the wildlife enterprise in Maningrida, its current status and proposed future activity.**
- 2. Three key Success Factors in the development of an effective wildlife enterprise.**
- 3. External & organisational constraints limiting the viability of wildlife enterprises in remote Australia.**

The BAC Wildlife Enterprise

a well established saltwater crocodile egg harvesting and hatchling industry, with hatchlings sold to crocodile farm

a well established freshwater turtle egg harvesting and hatchling industry, with hatchlings sold to pet shops;

a fledgling tarantula spider industry, with potential sales of spiderlings to the Australian domestic market and venom extraction for pharmaceutical companies

The 3 Wildlife Industries



Selenotholus sp.

- *Chelodina rugosa*



Crocodylus porosus



Crocodile industry:

- 1400 eggs harvested and about 600 hatchlings sold in 2000

compared to:

- 270 eggs harvested in 2009 to produce about 100 hatchlings sold

■ Turtle industry:

- 1000 eggs harvested in 2000 to produce about 700 hatchlings, with 350 sold to pet shops & 350 for experimental purposes

compared to:

- 400 eggs harvested in 2008 and 250 sold to pet shops.
- target of 850 eggs for 2009, with 650 sold to pet shops.

22 new species.....

- non-venomous snakes (pythons & file snakes)
- lizards
- geckoes
- freshwater crocodile

SUCCESS FACTORS IN DEVELOPING A WILDLIFE ENTERPRISE

High degree of collaboration between Indigenous organisations, Indigenous communities & scientific institutions;

Recognition of the importance of Indigenous Ecological Knowledge & western science;

Delivery of education & training directly relevant to wildlife management, resulting in a skilled workforce.

The Collaborative Model

Institutional collaboration between:

- BAC as the key Indigenous stakeholder and scientific research institutions such as:
the former ARC Key Centre for Tropical Wildlife Management, Institute for Applied Ecology (University of Canberra), the University of Queensland, the Queensland Museum and Crocodylus Park.

On the ground collaboration between:

Djelk Rangers, Traditional owners and outstation residents, and scientists

Djelk Rangers, scientists & both training providers (CDU) and Maningrida Community Education Centre

Collaboration with Uni of Qld. & Qld. Museum



Locating Tarantula burrows



Tarantula handling & milking

- Planning and design processes
- Data gathering and field work
- Data analysis and interpretation
- Modifying wildlife management practices
- Decisions about future directions.

- Valuing & Combining IEK and Western science:
- flow of skills & knowledge between scientists, Djelk Rangers, Traditional Owners and outstation residents
- development of strong knowledge base for enterprise
- significant time & resource savings
- strengthen collaboration, engagement, ownership

Training of Djelk Rangers (2000-2005)

- during establishment of wildlife industries

Science education for senior secondary students (2005 onwards)

- help maintain operation of the wildlife industries

TOPICS in SENIOR SCIENCE CURRICULUM

- tarantula spider diversity and abundance
- tarantula spider collection, husbandry and milking of venom
- community attitudes to crocodile hunting and crocodile tourism
- funding of Maningrida sea rangers' patrols of foreign fishing vessels
- crocodile egg collecting
- buffalo disease monitoring
- global warming
- bio-prospecting
- health implications of Maningrida camp dogs
- long neck turtle protection and harvesting of turtle eggs
- local weeds

MCEC students working with Djelk Rangers



- website development and marketing;
- programme monitoring, financial management, budgeting and accountability;
- report writing;
- application of more technical approaches to wildlife management and computational skills;
- development of wildlife skills associated with new species;
- leadership and work practices.

Develop a training & development plan:

- articulation of staff roles & responsibilities
- staff development planning for future responsibilities
- succession planning
- school to work employment pathway with MCEC

Strengthen partnership arrangements

- between BAC, Djelk Rangers, training providers & MCEC to ensure continuing skilled workforce

Constraints on wildlife enterprise development

External forces beyond the direct control of the enterprise:

- regulatory frameworks
- government employment policies
- seasonality and market forces
- Illegal harvesting – poaching

Organisational factors that relate more directly to the enterprise:

- local governance and management arrangements
- organisational arrangements & type of work required
- research and development pressures
- staff training and development
- business planning and competing demands

Delays due to:

- Lengthy NLC consultative process
- NT Govt permit requirements

Resource & planning implications

- Duration of Land Use Agreements
- Annual application for permits
- Reporting requirements

Government policies & programmes

- Different sources of funding
- Susceptibility to policy shifts
- Especially where there is no specific wildlife enterprise programme
 - Reliance upon other programmes reduces focus upon core business activity

The threat of illegal harvesting



One of 7 nests harvested -
another 10 “raided”



High density Tarantula
population

The range of tasks - turtle industry



Competing interests & demands.....



Are these sorts of industries commercially viable?

Supply factors rather than demand

Set-up time is considerable

Royalty payments

Cultural influences

Recognition of “non-economic” outcomes

- * Need for outcome evaluation

What is the future?

There is clear potential for significant increases in productivity,

- focus on core business
- realistic long-term business planning
- strong support from BAC management
- staff training and organisational development

Thank you for joining us today!



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