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# THE DESERT UPLANDS COMMUNITY SCHEME 1998-2004--A STRATEGY FOR INTEGRATED REGIONAL DEVELOPMENT

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## ABSTRACT

Enterprise reconstruction, socio-economic development and effective environmental management are the foundation of this community-based, government-supported scheme. The goal is an enduring future for rural producers and townfolk. The region is one of the few areas where the defined bioregion corresponds closely to the recognised agricultural production zone. It is rich in wildlife and supports fifty-eight regional ecosystems. Less than 10% of the original woodland cover has been cleared. Currently 320 graziers run mainly cattle, with sheep also in the southwest. Debt management is a concern for some graziers, and land degradation has resulted from impacts including over-grazing, soil erosion and weed invasion.

An active committee is implementing a wide range of the Scheme's initiatives, including:

- comprehensive action strategies for enterprise reconstruction, natural resource management and regional development,
- a regional geographic information system (GIS) and its application,
- NHT-supported projects:
  - i) a land resource assessment of the region with mapped data linked to GIS
  - ii) the implementation of nature conservation at the property level.

The future success of the Scheme depends on the commitment of dedicated local people, an up-to-date focus on rural issues, keeping pressure on Governments, dissemination of outcomes and a community-owned program that promotes and implements sustainable land management.

## REGIONAL BACKGROUND

The Desert Uplands Build-Up and Development Strategy Committee Inc. (DUBDSC) has facilitated planning of strategies that focus on Enterprise Reconstruction, Natural Resource Management and Integrated Regional Development. These seek to foster sustainable use of rangelands in the region and operate under three sub-committees that report to the DUBDSC. Commonwealth and State policies that address rural adjustment, sustainability, profitability and self-sufficiency work regionally under the Rural Partnership Program. This arrangement provides both funding (>\$6.5M) and a viable policy framework within which to implement the above strategies. The DUBDSC is made up of representatives of all key community groups. They include pastoralists, small business operators, state and local government agency officers, bankers, conservationists and researchers.

The Desert Uplands is one of the few rangeland areas in Australia where the defined bioregion corresponds closely to the recognised agricultural production zone. In 1996 the Queensland Government declared the region a *designated area* under legislated Landcare Property Build-Up and Development provisions. The declaration was in recognition of a decline both in living standards and business viability, as well as a decline in the region's natural environment (DUBDSC 1996). The Desert Uplands bioregion comprises an area of 70,000 sq. km. (Morgan 1999, Thackway & Cresswell 1995), whilst the economic region covers an area of 75,000 sq. km. Figure 1 shows a regional map. This allows properties whose boundaries extend beyond the bioregion to be included. Currently some 320 graziers run more than 380,000 head of cattle while in the southwest many are sheep producers. Land degradation has resulted from a number of impacts including over-grazing, soil erosion and weed invasion. The region is rich in wildlife. Fifty-eight regional ecosystems have been described

(Morgan *et al* 1997). The isolated central area is dominated by two large, internally drained lake systems.

Most of the critical sustainability-linked issues have been identified. These include:

- sub-optimal average property and herd sizes for long-term viable grazing enterprises
- land degradation across significant areas (DUBDSC 1996, estimated that >60% of the region has been variously impacted)
- increasing pressure on rare and threatened species and on a number of regional ecosystems (Morgan *et al* 1997), and
- in some cases inertia and incapacity to accommodate change towards sustainable-habitation (Walker 1996) and land resource management, accompanied by complex social issues (Hynes 1997).

### **STRATEGIES FOR SUSTAINABLE RANGELANDS IN THE REGION**

The above challenges are certainly not unique to this region. Nevertheless, the equation, that expresses relationships between specific biogeographic features and values that make up the ecological signature of the region and the strong visionary and practical commitment of the Committee, is unique (Hynes 1998). This is evidenced in broader terms by the comprehensive nature of the scheme (DUBDSC 1998). And also in the recognition that only through enterprise reconstruction for profitability, the achievement of social sustainability and effective environmental management, can a pathway towards future community and family enterprise survivorship and sustainability be attained.

#### **Enterprise Reconstruction**

A recent economic survey of producer enterprises (Milliar 1997) indicated low level profitability across the region. The outcome showed a cash deficit equivalent to >11% of the gross income. This suggests that the median property with median debt may not be financially viable as a grazing enterprise. Estimates of financial performance for a range of herd sizes indicated that a herd size of > 1200 A.Es. may be necessary to service the median debt. The key implication is that herd size generally needs to be increased to improve financial viability and sustainability of individual grazing enterprises and in turn the grazing industry of the region. This may be achieved through property build-up and/or property development (Milliar 1997, DUBDSC 1998). Some researchers have suggested that herd sizes of 2000 A.Es. or > may be necessary for even medium term viability in central-northern Queensland (Hinton 1993).

Options within the enterprise reconstruction strategy include property build-up, land development, partnership restructure and debt capital restructure. These are being implemented through two programs:

- 1) Interest subsidies for productivity improvement and property build-up and
- 2) Lease rental subsidies for productivity improvement and property build-up.

The DUBDSC has to date, committed over \$1M towards the expansion, development or rationalisation of 15 individual cattle grazing enterprises. The project encourages sustainable resource management by landholders. Selected cost/benefit analyses suggest development can be a viable proposition.

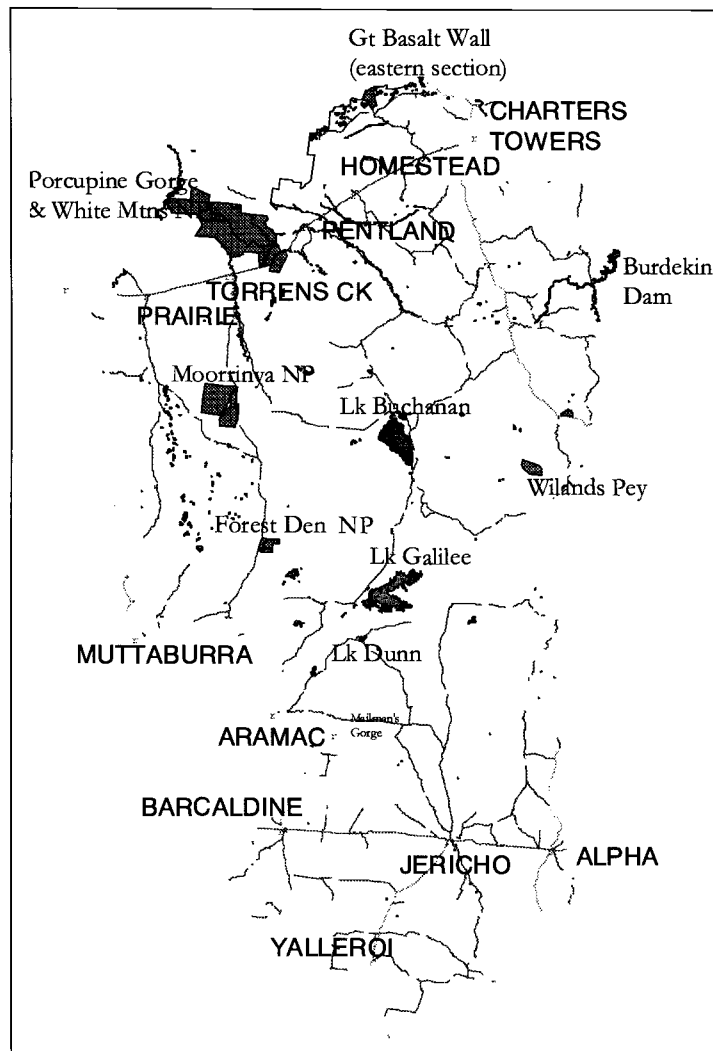
#### **Natural Resource Management**

This plan addresses the following issues: nature conservation, pest management, property management practices, carrying capacity, identification of resource-compatible diversification options, water management and land degradation.

The settlements of Charters Towers, Clermont, Alpha, Barcaldine, Aramac and Hughenden bound the region. (Figure 1).

It is an old landscape. It has, because of the generally low fertility of dominant soils and erratic rainfall, not been intensively developed when compared to the coastal zone. However, in recent years the rate of land clearing to improve the carrying capacity for beef production has become an issue. Currently, less than 10% of the bioregion has been cleared (Morgan *et al* 1977).

The name 'Desert Uplands' tends to convey the wrong impression regarding the area. Not only are there ephemeral lakes and wetlands but there is a rich diversity of flora and fauna within a wide range of different land types. Nature conservation is being incorporated and monitored in property management on nine properties and a further seven projects have been approved for funding. Notably the region often experiences extended dry seasons, or a run of dry years. Wet years are unusual, dry years tending to be the norm. Even when stock numbers are reduced the grazing pressure can still be too high for the quantity of pasture available.



**Figure 1. Map shows general features of the region**  
Central location point is approximately 147 degrees E,

Land degradation occurs in many different forms and the processes can be quite complex. One factor is critical in its prevention: the ability to manage the land according to the inherent limitations of each land type and the seasonal variations in the climate. It was during the particularly dry period of 1990-1997, when cattle prices were low, agistment hard to find or very expensive and the land was showing obvious signs of degradation, that the Desert Uplands Committee was formed. Its members were concerned for the future of the region's community and unique biodiversity. A strategy was developed to encourage and assist landholders to adopt sustainable land management practices. Notwithstanding this, the Committee soon realised that if it was to assist landholders in this way, detailed land resource information on capability and limitations was essential.

A major project, in which the different land types within an area of 45,000 sq.km. would be identified, described and mapped at a scale of 1:100,000, was submitted to the Natural Heritage Trust. The project involves a wide range of other supporters: DUBDSC, EPA, DNR, Tropical Savannas CRC, CSIRO and the shires of Belyando, Jericho, Blackall, Barcaldine, Aramac and Flinders. Each contributes funds to provide a combined sum to match that of the NHT.

The project is half way through its 3-year life and the database is expanding rapidly. Intensive fieldwork improves the accuracy of mapping by verifying or modifying interpretations made from

aerial photographs, satellite images and radiometric data. This 'ground-truthing' is essential in delineating different land types, classifying soils and identifying plant species.

The future use of sound land resource information has unlimited potential. It can be combined with cadastral, topographic, demographic and climatic data for land development and conservation planning purposes at regional, local government and property levels.

### **Integrated Regional Development**

This plan addresses both regional economic and social development issues. These include: trialing and implementing enterprise diversification options, monitoring telecommunication infrastructure development and services, a review and assessment of community services and adult education (key skills training and adult learning). It also involves a regional GIS and a *multi-criteria* Decision Support System (DSS) to complement decision making for an enduring region and a positive regional identity

The Tropical Savannas CRC has developed the GIS and is presently integrating this with the DSS for use in resolving regional planning issues. More than 160 maps have been produced for a range of clients viz. landholders, local authorities and regional planners as well as a carrying capacity modelling project. An 'Atlas of the Desert Uplands' has been produced. New land resource information and other data are being added in a flexible GIS facility that is being set up in several towns throughout the region.

Participatory action research (Hynes 1999) has been applied to diversification options at property and regional scales. Five enterprise diversification trials are in progress. These include: irrigated flowering gums for the florist industry, controlled mating of feral goats using Boer goat sires, crossbreeding Boer goats with feral nannies for meat production, preserving native flowers and foliage for the florist industry and red claw production. The regional level project has focussed on cultural tourism. This has developed a 'Desert Uplands Festival 2002 –Year of the Outback' program, which is being used as the template for regional festivals Australia-wide. A pilot application of the DSS has addressed environmental, social and economic issues and options at property, sub-catchment and regional scales.

### **CONCLUSION**

The Committee views the scheme as an on-going process and not an isolated event. It develops as it goes along, responding selectively to change while being flexible enough to accommodate emerging issues. The DUBDSC's leadership has been pro-active and effective in political lobbying at all levels of government during the last few years and the committee has been enthusiastic and hard working.

This special combination of relevant processes and highly committed people at local, regional and governmental levels has been the driving factor in achieving success to-date. Its continuation and its evolution will be critical regarding the future of this regional scheme.

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