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The Australian Rangeland Society

THE MURCHISON RIVER PROJECT: PASTORALISTS RESTORING HEALTH TO THE MURCHISON RIVER CATCHMENT

Murchison Land Conservation District Committee and the Ecosystem Management Unit of the Gascoyne-Murchison Strategy

co/Woolgorong station, via Mullewa, WA 6630.

OVERVIEW

The idea of attempting to recover historically degraded flood plains of the Murchison River was generated by pastoralists in the Murchison Land Conservation District Committee (MLCDC). Known locally as the "River Project", its initial objectives were to initiate and support restoration of these highly productive parts of the catchment by:

- fencing the floodplains off from their catchments up slope,
- using innovative grazing strategies based upon strategic rest and/or
- maintaining conservative stocking rates and
- controlling total grazing pressure (i.e. ferals and kangaroos, as well as stock).

In all, approximately 440 km of new fencing are planned over three years, and the eight participating stations are well on their way to completing their first milestone of 162 km by year's end. The remainder is planned for the following two years. Funding for most materials has been sourced through the National Heritage Trust. Some additional fencing is being done in the project at pastoralists' own cost. Pastoralists will meet over 60% of the total costs of the project.

EVOLUTION OF THE PROJECT

The participants invited the Ecosystem Management Unit ("EMU") of the Gascoyne-Murchison Strategy to provide technical assistance, ostensibly to do with riparian monitoring. However, through the EMU Exercise (Pringle & Tinley 2001), pastoralists and ecologists quickly recognised that the health of the floodplains could not be considered in isolation from the rest of the catchment. Thus, the objectives of the project expanded to become more of an integrated catchment planning exercise, placing as much emphasis on reading landscape patterns and processes to inform construction of infrastructure.

At a recent workshop/field day held at Meeberrie station to discuss what we had learnt together about floodplain and riparian management, the following critical issues emerged:

- water is belting down to the river from the valley sides in channels (like a canal system), instead of slowly spreading across the landscape after it leaves the stony uplands
- because the river channel has widened and deepened, over-bank flooding in many sections only occurs after exceptional rains
- floodwaters are rapidly draining back into the river via gully systems associated with stock pads (often to river pools) instead of staying out on the floodplain and revitalising grasses and saltbushes.
- in areas where floodplains are "leaking" back into the river, scrub encroachment is occurring (Tinley 2001)
- wetlands such as billabongs, river pools and pools at floodplain edges are prone to breaching by stock pads and need to be monitored and repaired as soon as danger signs appear
- troughs and fences may need to be moved away from particularly sensitive areas.

LOOKING FORWARD

Through the EMU Exercise, pastoralists have the basis for planning an ecologically sustainable future. They are quick to point out that the restoration of the Murchison River floodplains and the landscapes up slope will not happen in the timeframe of an NHT project. Rather, the foundations can be laid through strategic fencing, innovative management and monitoring and long-term planning based on learning-by-doing. Landscape, habitat and riparian monitoring techniques are being developed in a

partnership between pastoralists and the EMU team. Planning and installation of monitoring sites within an overall, but informal, environmental management system has commenced on all leases.

The River Project has attracted the interest of other pastoralists in the MLCDC, who manage tributary river systems or large lake systems and want to be part of the integrated approach. For instance, one pastoralist has sought Envirofunding from NHT to develop an off-reserve conservation area involving a nationally listed wetland of importance. Others are currently seeking funding for fencing tributary river floodplains.

In a recent NHT review, the participants stated that the River Project and its partnership with EMU had reinvigorated the LCDC and that there is new enthusiasm for adopting cooperative, cross-boundary approaches to land management.

In conclusion, pastoralists in the MLCDC have decided to take on the challenge of restoring an historically degraded major river system and its catchment, while learning more about recognising and managing important biodiversity issues. This represents a big challenge to Government departments. The MLCDC wants integrated support to address the big issues that cross boundaries and where local interventions may occur for the benefit of those down river.

The complexity extends to issues dealt with traditionally by different Government departments, who now need to cooperate to provide effective, cohesive assistance. Individual agencies may need to invest in Whole-of-Government service delivery, where institutional boundaries become very blurred. Thanks to NHT and enthusiastic and challenging groups like the MLCDC, this change in behaviour by Government departments is well under way in the Gascoyne-Murchison Strategy.

The "River Project" represents a bold initiative in integrated catchment planning as well as ecologically sustainable pastoralism. It is hoped that the enthusiasm and long-term commitment of pastoralists involved will be matched by equal amounts of support and patience from the wider community and its funding bodies.

REFERENCE LIST

Pringle, H.J.R. & Tinley, K.L. (2001) Ecological sustainability for pastoral management. *Journal of Agriculture* 42: 30-35.

Tinley, K.L. (2001) Scrub encroachment of productive grasslands: soil moisture balance. Proceedings of the Northern Australia Beef Industry Conference, Kununurra, November 2001, pp 11-16.