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LOCAL PROJECTS FOR REGIONAL SUSTAINABILITY

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Sustainability is clearly the guiding principle of Natural Resource Management in Australia. All the regions in Australia require a **Natural Resource Management (NRM) Strategy** which sets targets and priorities for investment of Natural Heritage Trust 2 (NHT2) funding. The Western Australian NRM Council defines Natural Resource Management as:

Ecologically sustainable management of the land, water, air and biodiversity resources of the State for the benefit of existing and future generations, and for the maintenance of life support capability of the biosphere. It does not include mineral resources but includes coastal and marine resources up to the State three nautical mile boundary.

NHT2 focuses on four key program areas; Sustainable Land-use, Rivercare, Coastcare and Biodiversity, however this poster spotlights the Sustainable Land-Use Program in the Rangelands region of Western Australia. The sustainable land-use program (also known as Landcare) will invest in activities that will contribute to reversing land degradation and promoting sustainable agriculture.

The Rangelands NHT region of WA covers 87% of Western Australia. It includes a diverse range of relatively intact ecosystems including e.g. tussock grasslands, shrublands, woodlands and monsoonal forest. Pastoralists are the primary managers of nearly half of the Western Australian rangelands; the remainder is managed as unallocated crown land (UCL), Aboriginal Communities and the Department of Conservation and Land Management (CALM) managed properties such as nature reserves. As part of the development of an accredited NRM Strategy, the Western Australian Rangelands Coordinating Group (the group responsible for preparing the Rangeland NRM Strategy) has divided the rangelands into four administrative sub-regions – the Kimberley, Pilbara, Gascoyne-Murchison and Goldfields-Nullarbor.

The sub-regions contain Land Conservation District Committees (LCDC). LCDC membership is mostly held by pastoralists along with representatives from mining, local government and the Department of Agriculture. LCDCs are a mechanism for getting sustainable resource use happening at a local and individual level.

The pastoral natural resource value of a land unit can be quantified using the long-term stock capability rating developed by Holm *et al.* (1995). This guide for stocking rates is based on soil, vegetation and effective rainfall attributes (rangeland condition). The derived rating indicates the long term sustainable stocking density of a particular land unit in a particular range condition.

Pastoralists through the LCDCs are managing projects funded by NHT1 and NHT2 at a local level to meet sustainable land-use targets. Some of these projects are:

HARVESTING NATIVE GRASSES ON THE NULLARBOR

The Nullarbor-Eyre Highway LCD wanted to know if the native grasses that grow after significant rainfall could be harvested, and if it would be a good fodder for sheep and cattle. The answer is “yes”. Through a Natural Heritage Trust 1 project grant, a contract harvester made 410 bales weighing an average 275 kg off 40 hectares of land. Although the process was not optimal (the grasses had set seed and begun to dry off at the time of harvest) the bales were still a big hit with both cattle and sheep and provided a satisfactory maintenance diet. An additional benefit of local production from native

pastures is that producers know it does not contain new weeds and that it is chemical free. With approximately 30% (17,400 sq km) of the Nullarbor covered in native grasses, there is potential for a significant and sustainable production regime to be implemented.

MESQUITE CONTROL IN THE PILBARA

Developing and implementing best-practice management for fire-tolerant mesquite in Australia is a cross regional project evaluating several control methods to determine the optimal approach. A major goal of the project is to address critical knowledge gaps (e.g. can fire be used to manage fire-tolerant mesquite in semi-arid regions?), improving kill rates for strategic infestations, developing and identifying areas within a catchment or region at greatest risk of mesquite invasion, and predicting the long term impact of the available biological control agents. The project will also develop and test new ways of managing containment zones for pastoralists to control spread of infestations.

TOTAL GRAZING MANAGEMENT

Total Grazing Management (TGM) is aimed at increasing the productivity and sustainability of stations in the Western Australian rangelands. In WA rangelands, the primary tool used for TGM is permanent trapyards at water points. These trapyards control access to and egress from watering points, thus giving managers a high level of control over station animals. TGM allows the manager to implement grazing management strategies, such as rotational grazing, by greatly reducing mustering costs. Through better animal handling technology and infrastructure, station profits and range condition can improve (Underwood 2002).

WEST KIMBERLEY NOOGOORA BURR PROJECT

Weed and pest infestations have been a major concern for land managers in the Kimberley sub-region over the years. This is partly due to the quarantine issues arising from border/customs efforts, along with the ideal climate for weed establishment and transportation (high rainfall, many river systems to infest). As a result many projects have been developed and implemented to address these issues. One such accredited NHT2 project currently being piloted is the 'Developing Capacity to Manage noogoora burr Infestations in the West Kimberley WA'. This project undertakes surveys and mapping to identify areas of noogoora burr infestation and targets high risk areas for chemical and physical control action. The project will reduce the incidence of noogoora burr in the Fitzroy River catchment area and provide community education and capacity directed at reducing the spread and infestation of this significant weed. Expected outcomes of the project will include the production of maps of infestation areas according to threat levels, improved community skills and commitment to managing weeds, a healthier, more accessible catchment area and reduced burr impacts on livestock facilitating lowered production costs to pastoralists.

The challenge now is to continue the developing project activities that appeal to funding agencies while addressing the immediate needs of land managers within a framework of planning for sustainable use.

REFERENCE

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