ACIAR helps Australia’s indigenous communities

Over the past 10 years ACIAR has found opportunities to assist some of Australia’s indigenous communities. While the Centre’s business model is primarily designed to facilitate and fund Australian–developing country project partnerships, many of its projects involve areas with similar climates and ecology to Australia’s tropical north. Thus from time to time ACIAR has involved indigenous communities on the Australian ‘side’ of the projects.

The main areas of ACIAR program involvement with indigenous communities have been in the fisheries and forestry programs. In other areas, there is often not a close match between developing country priorities and potential areas of interest locally; for example, there is not a strong tradition of crop production among many Australian indigenous communities.

Below are some highlights of past and present projects involving indigenous communities. There is also a list of current, recently concluded and pipeline projects, all of which have the intent of strengthening or adapting traditional practices and creating enterprises that are compatible with the communities’ customary ways of life.

Sustainable fisheries

In 2001 the Department of Agriculture, Fisheries and Forestry (DAFF) developed a ‘National Aquaculture Development Strategy for Indigenous Communities in Australia’, which led to the establishment in 2003 of the Indigenous Aquaculture Unit. The Unit provides advice to the indigenous community on aquaculture, implements recommendations of the Indigenous Aquaculture Strategy under the Aquaculture Industry Action Agenda, promotes indigenous aquaculture development within government and industry, assists in appraisal of indigenous project proposals, and helps source and/or coordinate funding support from other government agencies and stakeholders.

During 2006 the Unit has worked closely with the ACIAR Fisheries program. The collaboration seeks better mechanisms for ‘spillovers of information’ from previous and current ACIAR projects, many of which have involved the WorldFish Centre. The projects have developed low-technology and low-capital techniques for rural small-scale hatchery, nursery and grow-out of important
aquaculture species, so they can assist development of indigenous aquaculture and identify some potential areas for project-level cooperation.

**Restoring trochus populations**

A story of encouragement has emerged from the study of trochus populations. Australia, Indonesia and some Pacific Island nations supply around 90 per cent of the world’s trochus shell, which is used for high quality buttons and crafts. Falling production and increased scarcity of the trochus raised concerns of over-exploitation in areas where communities had fished for centuries. Concerned Aboriginal communities from King Sound in Western Australia approached the Northern Territory University, hoping to gain access to the hatchery production skills the NTU had developed for trochus. The university helped to establish a pilot hatchery, but further help was needed to effectively reseed coral reefs with hatchery-produced juveniles.

ACIAR funded the research in Western Australia and also in Indonesia and Vanuatu. Hatchery techniques were further developed and reseeding trials commenced. It was found that the release of unprotected juveniles onto coral reefs worked for Western Australia. The success achieved with this reef reseeding by the King Sound aboriginal communities deserved further encouragement, and the Aboriginal and Torres Strait Island Commission (ATSIC) decided to assist with the incorporation of the Kimberley Aquaculture Aboriginal Corporation (KAAC). In 2001 with the help of the WA government ATSIC funded KAAC to proceed with the establishment of a $3.2 million multi-species hatchery, where trochus would be cultured for reseeding depleted reefs.

**Self-managed woodlands**

Tropical woodlands, a major environment of the tropics including northern Australia, have a biological and environmental importance that extends far beyond their limited area. Demands on these woodlands have increased as other ecosystems become fully committed or exhausted. In northern Australia, European-based farming has replaced traditional Aboriginal practices in many tropical woodland areas. The growing demands on them must be balanced against their considerable limitations.

An ACIAR project sought to improve the framework for resource planning in these woodlands by enhancing the capacity of resource managers (farmers in particular) to identify, plan and implement sustainable natural resource management options. Researchers used the techniques of ‘action research’ (or ‘learning by doing’) so that local participants could involve themselves in the research—the best way to ensure implementation of research results and the introduction of necessary changes.

The project people worked with the Aurukun aboriginal community, taking great care to abide by the community’s established protocols. Aurukun, situated in the Western Region of Cape York in north Queensland, is one of the larger communities in the Cape with approximately 1200 people. Participatory
decision-making in resource management in this tropical savannah environment was a new concept for the community, but eventually the people started to express their own opinions and made their own decisions. The concept has become so well accepted and welcomed that community members, as rangers, wanted to be part of the process. The local Aurukun Council became enthused about the prospects for such work and made natural resource management a key employment and education issue for the Shire.

Better quality cattle

In the Weipa region of Cape York in north Queensland cattle production is one of the few economic enterprises that fit the lifestyle of the local Traditional Owners. Through the 1980s and 90s the mining company Comalco leased a cattle property (normal pastoral lease from the Government) to provide pastoral work for local Aboriginal people and fresh meat for the mining town. After the loss of the market for fresh meat in Weipa and a downturn in the live export trade for cattle during the Asian economic crisis, the company decided to sell the property. This decision was made in agreement with Traditional Owners.

But there was still the opportunity to accommodate a grazing enterprise using improved pastures established on the Comalco mine site through its mined land rehabilitation program. Beef cattle production could provide meaningful employment and income for the Traditional Owners post-mining. Comalco commenced trials on the use of leucaena along with suitable grass to provide improved cattle feed. This work was linked to an ACIAR project in Timor, Indonesia, where the scientists developed a management package to improve the dry season supply of forage from high-performing leucaenas that had been identified from earlier ACIAR projects.

In consultation with Comalco and the Traditional Owners, the project team identified management strategies for the sustainable use of the leucaena/grass areas as holding pastures for cattle prior to live export. The leucaena that had been introduced during rehabilitation of the mine site was inappropriately managed and had subsequently become a weed problem. The ACIAR scientists studied the impact of cattle grazing on leucaena, weed control and the animal productivity of leucaena-infested rehabilitated land. They found that the deep-rooted leucaena trees accessed subsoil moisture and produced high quality forage well into the dry season. Cattle grazing leucaena continued to gain weight, whereas cattle grazing native pastures rapidly lost weight at this time of year. The productivity of the leucaena-grass pastures could be further enhanced by using improved leucaena varieties (with lower weed potential) and the intensively managed hedgerow system developed in Central Queensland. Comalco are undertaking productivity trials of this system in 2006.

A chance for horticulture

Other communities on Cape York Peninsula (and a community in Samoa) stand to benefit from the establishment of horticultural industries. Project researchers have undertaken rapid rural appraisals to gather data and then construct a tailored information system that lists key commodity interests for each
community. This process will help the communities to determine the most suitable crops to grow and to assess financial and technical aspects of growing them, as well as determining their market prospects. From the viewpoint of the Australian component, the project team has held discussions with a range of groups in aboriginal communities and with commercial growers near Cooktown. They met with key stakeholders in the aboriginal community of Mapoon and members of other communities of Napranum near Weipa and Lockhart River.

The Mapoon community is the main focus in the initial stages of the project. In Mapoon they have recently established a community farm to supply local fruit and vegetables to the community store. In the longer term they want to grow yams and taro and cultivate local bush foods that are not readily available in mainstream marketing. The community is also interested in amenity plantings of local and introduced ornamental and fruiting plants.

**Past, present and future ACIAR projects involving Australian indigenous communities**

**Fisheries**

FIS 2001/085 Integration of broodstock replenishment with community-based management to restore trochus fisheries (active)

FIS 1994/010 Reef re-seeding of the topshell *Trochus niloticus* in Northern Australia, E Indonesia and the Pacific (concluded)

FIS 2001/075 Sustainable aquaculture development in Pacific Islands region and northern Australia (and pipeline successor project FIS 2006/138)

FIS 2003/059 Sea ranching and restocking sandfish in Asia-Pacific (pipeline)

FIS 2003/027 Planning tools for environmentally sustainable tropical finfish cage culture in Indonesia and northern Australia

**Forestry and Natural Resource Management**

LWR2 1996/163 Enhanced resource-use planning for tropical woodland agroecosystems (concluded)

FST 1996/077 Documentation, collection and cultivation of traditionally-utilised tree species in Northern Australia and Eastern Indonesia (concluded)

FST 2000/001 Fire and sustainable land management in Eastern Indonesia and Northern Australia

FST/2002/097 Identification of optimum genetic resources for establishment of local species of sandalwood for plantations and agroforests in Vanuatu and Cape York Peninsula
FST 1998/113 Development of a sustainable, community-based essential oil industry in the Western Province of PNG using the region’s woody-plant species (concluded)

*Crop and Livestock production and rangelands management*

AS 2 2000/157 Leucaena management in West Timor and Cape York (concluded)

SFS 2001/023 Fostering self-reliance in the use of information and quality management systems for crops by market-remote communities in Australia and the Pacific

**Further information**

For further information visit the ACIAR website at: www.aciar.gov.au