



Australian Government

Department of Agriculture, Fisheries and Forestry
Bureau of Rural Sciences



Australia's State of the Forests Report

Case studies

Criterion 6

Maintenance and enhancement of long term multiple socioeconomic benefits to meet the needs of societies

Case study 38: Water for Sydney

The Sydney Catchment Authority (SCA) protects 1.6 million hectares of Sydney's drinking-water catchments to supply quality raw water.

The SCA collects water from five primary catchments, in which 62% of the land is managed privately, 28% by the Department of Environment and Climate Change and 9% by the SCA. Water is stored in 21 storages, which together hold 2.6 million megalitres of water. Approximately 4.2 million people, or about 60% of the population of New South Wales, use raw water supplied by the SCA.

About 120,000 people live in the catchments, much of which are forested or partly forested and include significant pristine native ecosystems. The catchments support about 200,000 cattle, 1 million sheep and a variety of other livestock on private land.

Source: SCA

Case study 40: Billy-goat plum

The fruit of the billy-goat plum tree (*Terminalia ferdinandiana*), one of 28 *Terminalia* species or subspecies occurring across tropical Australia, has the highest natural concentration of vitamin C of any fruit. Two main markets exist for the fruit: as a natural source of vitamin C, and as flavouring in gourmet condiments, such as chutneys and jams. Currently, most production is generated from wild harvest by Indigenous people on Indigenous land, but demand exceeds supply.

Indigenous people have a long history of using billy-goat plum, but commercial harvests only started in 1996. Coradji Pty Ltd, a Sydney-based company, buys the fruit from Indigenous groups in the Kimberley region of Western Australia for \$20 per kg. Coradji processes the fruit using specialised equipment and sells the extracted vitamin C in powder form to an American company that produces glycol-antioxidant supplements as Ambrotose AO capsules. Coradji purchased 10–12 tonnes of quality-controlled, frozen billy-goat plum from the Broome and One Point areas in 2004 and eight tonnes in 2006.¹ The company also buys smaller quantities from Indigenous communities in the Northern Territory, as well as from Kakadu Wild Harvest, a company that wild-harvests on Crown land.

A number of companies purchase billy-goat plum for its flavour and nutritional value and add it to gourmet products featuring Australian native food ingredients.

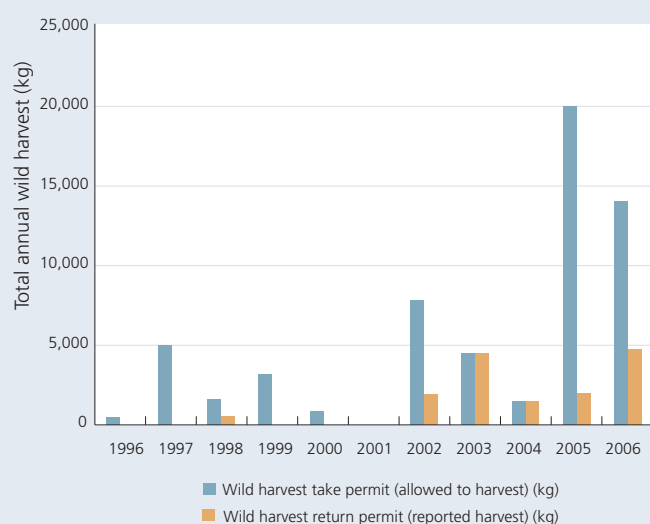
One brand, Outback Spirit, has a broad range of products and requires large volumes of fruit. Demand has fluctuated over the years (see Figure 75 for the Northern Territory), but since Coradji entered the market the shortfall has been at the supply end. In Western Australia, the sustainability of the harvest was an issue in the Broome area in 2004, but since then the Department of Environment and Conservation has increased its regulation by ensuring that harvesters apply for permits.

Harvest levels are smaller in the Northern Territory; the Department of Natural Resources and the Arts regulates the commercial harvest through a permit system under which harvesters obtain a take permit for the amount they intend to harvest and pay a royalty of \$1 per kilogram for the quantity actually harvested. The department will prepare a management plan for the species if it considers that the commercial harvest is having detrimental effects.

The billy-goat plum industry has the potential to expand across northern Australia and to provide substantial livelihood opportunities to Indigenous people on whose land it occurs. In time, horticulture and farm forestry projects may meet the increasing demand for the product, but a niche market for wild-harvested, natural sources of vitamin C is likely to persist.

Source: PWSNT Permit Office data

Figure 75: Northern Territory permit data for the commercial harvest of billy-goat plum, 1996 to 2006 (kg)



¹ Q Blade, unpublished data.

Case study 41: Asian water buffalo

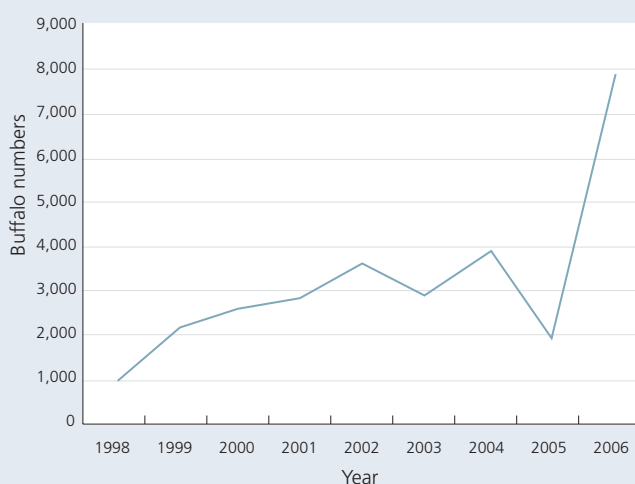
The Asian water buffalo (*Bubalus bubalis*), a non-native species, is an important source of protein for Indigenous people in Arnhem Land and provides them with commercial benefits through 'safari' and tourism ventures. The buffalo is also exported live to a number of Asian countries for slaughter and as breeding stock. The live-export trade fluctuated considerably over the past decade (Figure 76) but in 2006 contributed an estimated \$3 million to the local economy (based on an average weight of 300 kg per beast and a price of \$1.30 per kg). Many of the buffalo are taken from the Bulman area

in southern Arnhem Land under a land-use agreement involving Indigenous landowners and the Gulin Gulin Buffalo Company Pty Ltd. The company has a five-year agreement (July 2002 to July 2007) to control the mustering and export of buffalo.

Buffalo can have significant environmental impacts, and managing populations is both time consuming and expensive. In addition to the socioeconomic benefits, using the animal commercially can help in its control.

Sources: Altman (1987), Johnson (2000), Ridpath and Waithman (1988)

Figure 76: Live buffalo exported from Port Darwin to Asian markets, 1998 to 2006



Note: Asian markets are Brunei, East Timor, West Malaysia, Saudi Arabia, Sarawak, Philippines, Indonesia, Thailand and Sabah.

Source: DPIFM (2007)

Case study 48: Tasmania

Indigenous people have formal use and rights by virtue of land title over areas identified under Tasmania's *Aboriginal Lands Act 1995*, which provides for the transfer of specified areas of Crown land to the Indigenous community. The Act also established the Aboriginal Land Council of Tasmania (now the Tasmanian Aboriginal Land and Sea Council) as a statutory body to hold and manage land on behalf of the Indigenous community in perpetuity. In 2005, 42,700-hectare Cape Barren Island was transferred to the Aboriginal Land Council of Tasmania; unlike other land transfers, Cape Barren Island contains large areas of forest.

Formal and informal management regimes to protect Indigenous cultural heritage have been established under the *Aboriginal Relics Act 1975*, the *National Parks and Reserves Management Act 2002* and the *Forestry Act 1920*. The Aboriginal Relics Act is intended to ensure

that any action that affects Indigenous cultural heritage (called 'relics' in the Act) is subject to strict investigatory, scientific and administrative controls. Over the five-year period between July 2001 and June 2006, a total of 1,365 new Indigenous heritage places across all land tenures were listed in the Tasmanian Aboriginal Site Index.

The *Forest Practices Code*, established under the *Forest Practices Act 1985*, provides for the assessment, planning, management and protection of Indigenous heritage within production forests. During the period from July 2001 to June 2006, 427 places were located by the Forest Practices Authority's Aboriginal Heritage Officer in the course of surveys required under the code. All those places have subsequently been protected in informal reserves in which no further disturbance is permitted.

Source: Forest Practices Authority (2007)

Case study 50: Tasmania's approach to cultural heritage in forests

In Tasmania, about 1,400 sites in multiple-use public (state) forest are managed specifically to protect non-Indigenous cultural heritage. The sites are identified in the Management Decision Classification System as special management zones for cultural heritage; when combined with Indigenous cultural heritage areas, the area contained in these zones exceeds 49,000 hectares. Individual historic sites on public and private land that are subject to forest practices plans are assessed and managed in accordance with the *Forest Practices Code*.

Twenty-nine sites are designated as historic sites under the *Nature Conservation Act 2002*; they cover a total area of 16,074 hectares, of which about 4,320 hectares is forested. In addition, regulations governing the use of all reserved land under the Act prohibit unauthorised removal, damage, defacement or disturbance of any object of archaeological, historical or scientific interest. Historic heritage sites within formal reserves are managed

in accordance with the Tasmanian *Reserve Management Code of Practice*. The code requires that all sites found in the preparation of a forest practices plan be reported. As a result, an additional 518 historic sites have been identified and managed in wood production forests since 2001. Individual sites are identified and may be further protected by prescriptions in reserve management plans.

In 2003, while preparing a forest practices plan, a Forest Practices Authority officer located a Chinese miners' camp that had not been disturbed since it was abandoned more than 100 years ago. In consultation with staff from Forestry Tasmania, it was decided that the best management would be to have the site excavated by an archaeologist and the finds lodged with the Queen Victoria Museum.

Source: Forest Practices Authority (Tas.)

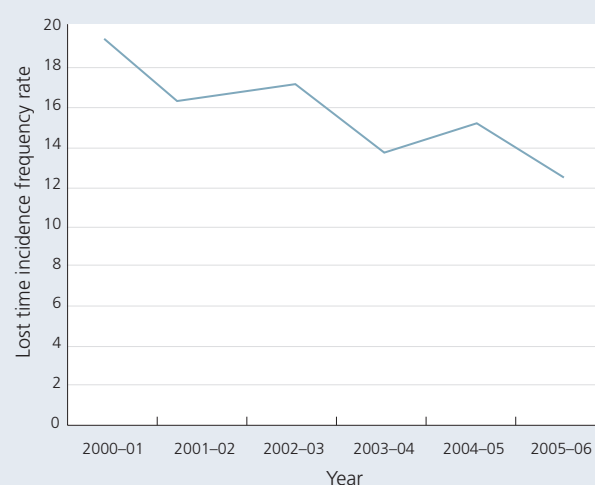
Case study 55: The 'Think safe, act safe, stay safe' campaign in New South Wales

Forests NSW introduced its 'Think safe, act safe, stay safe' campaign in 2004–05. As part of the campaign, new safety materials aimed at ensuring a first-class safety performance were distributed state wide to around 1,000 employees. The materials included books, guidelines, checklists and pocketbooks, all of which are available to every employee on the Forests NSW intranet.

The basis of the strategy is to ensure that employees fully recognise that safety begins with them. Staff are trained to conduct risk assessments so that they gain an understanding of what is required in the field and learn to identify and manage some of the common hazards in their workplaces.

Fewer than 100 workers compensation claims were submitted in 2005–06, continuing a downward trend. The lost-time incident frequency rate, which is a measure of the number of hours lost for every million hours worked, also reached an all-time low of 13.3 in 2005–06 (Figure 93).

Figure 93: Lost-time incidence frequency rate trend, Forests NSW staff



Source: Forests NSW (2006)

Prepared by the Montreal Process Implementation Group for Australia on behalf of the Australian, state and territory governments.

© Government of Australia 2008

Contact details:

Bureau of Rural Sciences
GPO Box 858, Canberra ACT 2601

Copies available from:

BRS Publication Sales
GPO Box 858, Canberra ACT 2601
Ph: 1800 020 157 | Fax: 02 6272 4747
Email: salesbrs@brs.gov.au | Web: www.brs.gov.au