



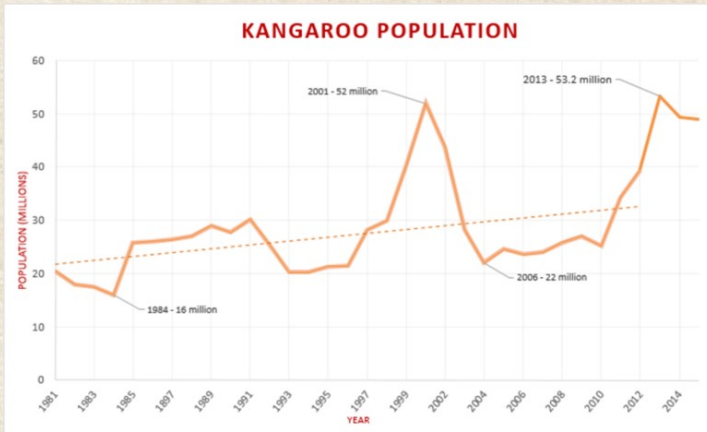
Fact Sheet: Sustainability



The kangaroo industry utilises a natural and superabundant resource. There are 48 species of macropods (kangaroos) in Australia. Of these, only four can be commercially harvested plus two species of wallaby in Tasmania. Over 99% of the commercial kangaroo harvest occurs in the arid grazing rangelands.

Kangaroo Population

The populations of kangaroos in the rangeland areas are estimated every year using well-developed aerial survey techniques. Kangaroo numbers fluctuate depending on seasonal conditions, during droughts they can decline, or they can increase dramatically during good seasons as has been the case in recent years. The graph below shows this pattern repeated over several decades although the trend line shows that populations have been consistently increasing over time. This is largely due to permanent sources of water put in place for livestock industries which means that kangaroos now, on average, need to go no further than 3km to access water.



Kangaroos are one of the most numerous large wild land mammals on earth. The commercially harvested species of kangaroos are super-abundant and are listed as of 'least concern' by the United Nations in terms of their conservation status.

Nearly forty years of monitoring data across large areas and through a number of droughts and high rainfall years, has provided convincing empirical evidence that kangaroos are being harvested sustainably. The current kangaroo

population of over 49 million is significantly higher than the 25-year average of 26.7 and is significantly higher than the number of cattle in Australia.

The Harvest Quota Setting Process

The kangaroo population in each State and Territory is estimated every year using highly developed aerial survey techniques. For each kangaroo species to be harvested, the relevant conservation authority in each State must have a detailed Management Plan approved by the Australian Department of Environment & Energy. These Plans must detail the annual population monitoring and quota setting controls, the controls over the take and must be renewed every 5 years.

Based on population estimates, Management Plans establish an annual maximum allowable take (quota) of typically between 10–15% of total population. The relevant State authority will then issue individually and sequentially numbered plastic lockable tags. These tags are designed to ensure that once properly applied any tampering with them will be obvious.

Each kangaroo taken by licensed harvesters must have a tag fixed to it and the harvester and processor are required to report to the relevant authorities on a monthly basis with the details of the number and location of the tags used, and the species, sex and weight of animal to which they were attached. The authority monitors the release and use of tags to ensure the harvest does not exceed the quota.

Licensing Controls over Kangaroo Harvesters

In order to purchase the tags issued by the relevant authorities, an individual must be licensed as a kangaroo harvester by the relevant State agency. To achieve licencing they must undergo training and assessment delivered by government accredited providers, including the TAFE (Tertiary and Further Education) agency in the relevant State. This training covers the regulatory controls and compliance requirements, animal welfare controls and

compliance requirements, animal welfare controls and hygiene controls to which each harvester must adhere. It is also a requirement that the harvester holds a valid Firearms Licence and pass a firearms competency test.

It is a condition of every kangaroo harvesters license that he/she adheres to the strict guidelines laid out in the Federal Government document, Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes mandated by the Australian Government. This specifies the minimum high calibre firearms which can be used, it requires that all animals be head shot and documents procedures for the humane dispatch of any pouch young (CNM 1990).

Low Environmental Impact

To date agricultural development in Australia has largely been based on modified European systems, using European animals yet Australia is a vastly different environment to the 'Old World'. The major influence on its weather patterns is the El Nino effect which produces extremely variable and unpredictable seasonal conditions. The unpredictability of an El Nino climate has resulted in vastly different environmental systems than those of the Northern Hemisphere (Flannery 1996).

In recent decades this Eurocentric view has come under considerable academic question. A ground swell of opinion is developing that we should develop management systems adapted to Australia's specific environmental conditions. Under this philosophy, utilisation of free ranging populations of native animals adapted to the environment makes environmental sense.

Climate Change

Methane from the foregut of cattle and sheep constitutes 11% of Australia's total greenhouse gas emissions (GHG). Kangaroos, on the other hand, are non-ruminant forestomach fermenters that produce negligible amounts of methane (Wilson, 2008).

Methane's warming potential over a 100-year time frame is 21 times higher than that of CO₂ (National Greenhouse Gas Inventory 2005); however, its chemical lifetime in the atmosphere is 8-12 years (Wahlen 1993) compared to 100 years for CO₂ (United States Environmental Protection Agency 2006). Therefore, reducing methane production is an attractive short-term target for mitigating global warming and it is estimated that kangaroo meat has one third the carbon footprint of beef. (Wilson, 2008, Garnaut, 2008).



Kangaroo Industries Association of Australia
www.kangarooindustry.com

Community Attitudes

An extensive survey released in 2014 looked at community acceptance of a range of kangaroo management alternatives, including exclusion fencing and 'doing nothing'. Commercial Harvesting was consistently considered the most acceptable against a range of considerations including humaneness and likelihood of extinction. Commercial harvesting was also viewed as being effective at preventing damage from overgrazing with the majority (75%) considering it 'effective' or 'very effective'. The authors concluded, "Our results indicate that the majority of the general public accepts commercial harvesting as an acceptable, humane and effective method of managing kangaroos" (McLeod and Sharp 2014).

Numerous professional and environmental management organisations have published guidelines for the sustainable utilisation of wildlife resources including CSIRO; Australasian Wildlife Management Society; International Union for the Conservation of Nature (IUCN); and World Wide Fund for Nature.

In all of these publications, kangaroo harvesting fits very well with the criteria for sustainable resource utilisation.

"Kangaroo harvesting clearly meets most of the principals of sustainable use of wildlife" (CSIRO 1998).

The Australasian Wildlife Management Society, the peak representative body for professionals actively involved in wildlife management, state:

"AWMS supports the idea of achieving a conservation benefit from a government regulated, high value, sustainable kangaroo industry" (AWMS 1998).

Many non-government conservation groups are vocal in supporting the utilisation of kangaroos, for instance the South Australia Nature Conservation Society told a Senate Inquiry into Wildlife Utilisation that:

"We are in full agreement that regulated commercial utilisation e.g. Kangaroo harvesting, on private lands are a potent driving force for the retention of habitats." (SANCS 1997).

References

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