

Food management

Discover how First Nations peoples of Australia developed amazing land management practices!

From the Gunditjmaras' eel farming at Budj Bim to firestick farming and yam daisy cultivation, these sustainable techniques ensured balance with nature. Learn how ancient agricultural methods are still inspiring us today.



First Nations land management practices were deeply connected to the unique environments of each clan. For example, the Gunditjmaras people of Victoria developed an advanced aquaculture system at Budj Bim, using stone weirs and channels to trap and farm eels. Their use of stone terracing also helped manage soil and water for agricultural purposes, showing a high level of environmental control.

In southeastern Victoria, the Wurundjeri and Dja Dja Wurrung peoples practised yam daisy (murnong) cultivation, carefully harvesting to ensure the plants would regenerate. This sustainable method provided a consistent food source without depleting the land's resources. Firestick farming was used widely across the continent to promote plant growth and maintain ecosystems, particularly by the Noongar people of Western Australia, who used controlled burns to manage resources.

In Arnhem Land, the Yolngu people used a shifting cultivation system, rotating land use to allow for natural regeneration. The Arrernte people in Central Australia also used controlled burning, managing vegetation to encourage the return of animals like kangaroos to areas for hunting.

These practices were not only focused on food production but also on maintaining Country. By rotating land use, controlling fire, and harvesting resources mindfully, First Nations peoples ensured the ongoing health of their ecosystems. Each clan's methods were adapted to the specifics of their landscape, demonstrating a deep knowledge of their environment and a sustainable approach to living off the land that spanned thousands of years.

Sources:

- [ABC Education](#)
- [ASRAC](#)
- [East Arnhem Land](#)
- [Science Gallery Melbourne](#)
- [Yumi Sabe - Indigenous Research Exchange](#)

Aquaculture

Dive into the incredible aquaculture of the Gunditjmara people at Budj Bim, where ancient stone channels and traps were used to farm eels sustainably for thousands of years.

This UNESCO World Heritage-listed site showcases how Aboriginal knowledge shaped one of the world's oldest aquaculture systems, still inspiring sustainable practices today!



Aquaculture, or fish farming, has been practiced by Aboriginal and Torres Strait Islander peoples for thousands of years. One of the most famous examples is the aquaculture system created by the Gunditjmara people of Victoria at Budj Bim, a UNESCO World Heritage-listed site. Budj Bim is one of the oldest and most complex aquaculture systems in the world, where the Gunditjmara people managed and farmed eels (kooyang) using an extensive network of channels, weirs, and stone traps.

The Budj Bim aquaculture system was carefully designed to manipulate the flow of water from nearby Lake Condah, allowing the Gunditjmara peoples to control the movement of eels. They built channels and stone structures to divert water and create areas where eels could be trapped, farmed, and harvested. This system not only provided a reliable food source but also allowed the community to store eels for use throughout the year, supporting a stable, settled lifestyle.

The practice of eel farming at Budj Bim shows a deep understanding of the environment and the seasonal movements of the eels. By creating these stone structures, the Gunditjmara people could ensure that they didn't overharvest. This long-term management of the environment demonstrates the strong connection the Gunditjmara people have to the land and their role as Traditional Custodians of Country.

Today, Budj Bim is recognised as a significant cultural and environmental heritage site. The aquaculture system at Budj Bim is not only evidence of sophisticated engineering but also a symbol of the resilience and ingenuity of the Gunditjmara people. Budj Bim teaches us about the importance of working with the environment, using natural resources responsibly, and passing down knowledge through generations to ensure the land's health for the future.

Sources:

- [Budj Bim](#)
- [UNESCO World Heritage Convention](#)

Firestick farming

First Nations peoples use cool burning (or firestick farming) to manage the land with low, gentle fires.

These fires reduce bushfire risks, boost plant growth, and keep ecosystems thriving. Discover how this awesome tradition still shapes fire management today, keeping the land healthy and safe!



Firestick farming, also known as cool burning, is a traditional land management practice that has been used by Aboriginal and Torres Strait Islander peoples for tens of thousands of years. This method involves setting small, controlled fires during cooler times of the day, such as early morning or late afternoon, when the conditions are safer. The fires are low-intensity and slow-moving, designed to burn the undergrowth and leaf litter without harming larger trees, soil, or the broader ecosystem.

The main goal of cool burning is to reduce the build-up of dry grass, leaves, and other vegetation, which can act as fuel for large, uncontrollable bushfires. By regularly using fire in this controlled way, First Nations peoples managed the landscape to prevent devastating wildfires, while also maintaining healthy ecosystems. Cool burning encourages new plant growth, helping to regenerate the land and create habitats for animals. In fact, many native Australian plants depend on fire to germinate and grow, making these practices vital for biodiversity.

Cool burning supports the health of the soil by releasing nutrients back into the earth and preventing the soil from becoming too hot, which can happen in more intense fires. This method also helps to create firebreaks that stop larger fires from spreading. The practice of firestick farming reflects a deep understanding of how fire can be used not only to manage land but also to maintain a balance between people, plants, and animals.

For Aboriginal and Torres Strait Islander peoples, fire management is more than just a practical tool; it is deeply connected to their culture and knowledge of Country. Each region has its own traditions around when and how cool burning should be done, based on thousands of years of observation. Today, as Australia faces more frequent and intense bushfires, many fire management programs are rediscovering and incorporating these traditional techniques to reduce fire risk, protect biodiversity, and restore ecosystems.

Sources:

- [Aboriginal Heritage Tasmania](#)
- [SBS Australia](#)

Oral storytelling

Storytelling in Aboriginal and Torres Strait Islander cultures is more than just history, it's a hands-on guide to sustainable living!

For thousands of years, these stories have passed down knowledge on managing the land, from fire techniques to seasonal changes. Today, this ancient wisdom is being used alongside modern science to protect Australia's unique ecosystems.



Oral storytelling plays a key role in sustaining the land management practices of Aboriginal and Torres Strait Islander communities. Through stories, important environmental knowledge is passed down that helps maintain balance between people, animals, and the land. This oral tradition is more than a transfer of historical or mythical narratives, instead it is an ecological management tool that teaches practices such as tracking seasonal changes, understanding weather patterns, and managing fire in a way that supports biodiversity.

For example, the practice of cool burning, which is used to reduce the intensity of bushfires, is guided by traditional stories that convey when and how to burn safely. These stories explain the effects of fire on specific plants and animals, making them invaluable in preserving ecosystems. By adhering to the rhythms of the land, Aboriginal and Torres Strait Islander communities ensure that their management practices are both sustainable and respectful of Country.

The integration of storytelling with land management also emphasises the importance of kinship with the environment. Stories often communicate the belief that humans, animals, and plants share a symbiotic relationship, where caring for the land ensures that it will, in turn, provide for the people. This understanding underpins practices like sustainable hunting and gathering, as well as water management, ensuring resources are never over-exploited.

Today, First Nations land management practices, supported by traditional stories, are being incorporated into modern conservation efforts. Collaboration between First Nations rangers and scientists is helping to tackle environmental issues such as invasive species management and protecting biodiversity. These partnerships are a testament to the enduring relevance of oral storytelling in guiding sustainable land practices in Australia.

Sources:

- [Australian Museum](#)
- [Koorie Heritage Trust](#)

Water resources

Explore how First Nations' water wisdom shaped sustainable land stewardship!

From eel farming at Budj Bim to desert wells and coastal harvesting, this factsheet reveals ancient practices that balanced water use with environmental care, offering insights into today's conservation and resource management.



First Nations peoples of Australia developed intricate water management systems as part of their land stewardship, showcasing deep environmental knowledge. The Gunditjmara people created stone channels, weirs, and dams to manage water flow for eel farming, using natural water flows from Lake Condah at Budj Bim. This system provided a sustainable food source year-round and demonstrated a sophisticated understanding of aquaculture.

Beyond aquaculture, many Aboriginal groups managed water resources in both arid and temperate regions. The Yorta Yorta people of Victoria practised seasonal water regulation, monitoring river levels to time fishing and harvesting, ensuring long-term sustainability. In the Western Desert, the Martu people expertly managed soaks and wells, vital for survival in the harsh, dry landscape. In coastal areas of Northern Australia, First Nations communities applied their knowledge of tidal patterns to sustainably harvest seafood and manage coastal ecosystems.

Water management practices were deeply connected to cultural responsibilities, often reflected in Songlines, cultural pathways that mapped out environmental knowledge and water sources across the land. These practices helped conserve and ensure the sustainable use of water, a vital resource in Australia's diverse and often harsh climates.

An important part of water management was the construction of middens, ancient waste heaps made up of shells, bones, and other food remnants, often found near rivers, coasts, and wetlands. Middens serve as evidence of long-term, sustainable harvesting of fish and shellfish. These sites offer insights into how First Nations peoples managed water and food resources, highlighting their deep connection to the environment and their ability to farm, hunt, and fish without depleting resources. Across Australia, First Nations communities managed the delicate balance between water use and the preservation of natural habitats, ensuring the long-term health of rivers, wetlands, and coastal areas.

Sources:

- [Australia State of the Environment](#)
- [Victorian Aboriginal Heritage Council](#)
- [Queensland Government](#)