

# Introduction to human impacts on the ecosystem

How can ecosystems be impacted?

- Natural Impacts

Natural events impact ecosystems. Seasonal changes can impact the organisms of a community because they are influenced by abiotic factors such as bushfires, flooding and drought.

- Human Impacts

Actions taken by human that influence natural ecosystem. These can effect the ecosystem in a positive or negative way.

## Aboriginal people, fire and ecosystem

The practice of cultural burning involves lighting low fires in small areas.

These fires were closely monitored to ensure that only the underbrush was burnt.

When leaf litter accumulates, it becomes a natural fuel and during heat waves or extremely dry and hot conditions this can start major bushfires.

We have now learnt that the use of fire is a crucial aspect of Australian ecosystems and is necessary for the survival of many native species.

Cultural fire management was used by Indigenous peoples to prevent wildfires and maintain ecosystems.

Habitat Destruction

Optional activity: Research a local example of habitat destruction and what they means for species and the interdependencies present

I have found that there have been logging in the dandenong areas. It is home to a variety of native plant and animal species, including the endangered Leadbeater's Possum. However, the Dandenong Ranges are also under threat from logging. In recent years, there has been a significant increase in logging in the Ranges, which has destroyed much of the native forest. This has had a devastating impact on the local wildlife, and has also contributed to climate change.

There is a serious effect that this issue pertains to. First of all, it can disrupt the delicate food webs. This can cause gaps in certain areas of the webs. For example, if there are certain apex predators are removed due to logging, then tertiary consumers will overpopulate and add further complications in the already effective ecosystem. One animal that may severely suffer is the possum as their habitat will be destroyed.



Next, Logging can also impact the water cycle. Trees help to absorb water and release it slowly into the atmosphere. When trees are logged, this process is disrupted, which can lead to flooding and drought.

Hence, logging in the Dandenong area can have serious implications on the fragile ecological harmonious system that currently exists.

## **Introduced Species**

Animals and plants brought to Australia from other countries are known as introduced species

They are also referred to as feral animals

Feral animals have a devastating effect on native wildlife as they compete for resources  
Introduced plants often become weeds and again compete with native species for resources.

Some examples include:

- Feral Cats
- Red Foxes
- European Rabbits
- Cane Toads

## **Yellowstone Food Web Task Example Answer**

