

## Growing crops



During La Niña there can be outbreaks of diseases, and pest such as rats that can destroy the crops.

Farmers can:

- Sprinkle fire ash on vegetables and mix into the soil as a natural pesticide
- Remove diseased or pest-affected branches or plants
- Cover fruit bunches (bananas, guava etc.) with plastic bags to prevent insect attacks
- Relocate taro garden to a place away from heavy flooding such as on a slope
- Ensure water can easily drain away from crops to prevent rotting

## Managing livestock



La Niña can cause a lot of problems to animals including outbreak of diseases and pests.

Farmers can:

- Remove animals from erosion-prone flooded areas
- Ensure animals are in healthy condition and have access to clean water
- Plant pasture grass species that can tolerate water; e.g. papolo, beans
- Vaccinate animals against worms
- Prevent spread of horseflies by not mixing cattle and horses
- To combat foot rot on the hooves of cattle, place stones within the paddock to trim the hooves



## Maintaining forestry



Too much rain will affect the growth of young plants.

Forestry managers can:

- Plant water tolerant tree species in flood prone areas; e.g. coconut, bamboo, purao
- Discourage clearing of vegetation on steep slopes
- Create drainage between plants to avoid water becoming logged
- Remove infected and dead trees to prevent diseases from spreading
- Apply chemical treatments for mould
- Maintain proper crossings of streams and rivers

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# La Niña: Bringing rain and floods



# What is La Niña and what effect does it have on Vanuatu?



La Niña is associated with extensive cooling of the sea surface in the central and eastern tropical Pacific – towards the coast of South America.

It often causes above average rainfall over much of Vanuatu during the wet season (November - April) and the dry season (May – October).

Tropical cyclones are often more frequent during La Niña events and often form in the west of the country.

La Niña usually occurs every 3-5 years and can last up to two years or more. It causes flooding, landslides, damage to settlements and infrastructure, additional pests and diseases to crops and an increase of mosquito and water borne diseases.

Understanding La Niña can help communities better prepare to reduce risk and loss of life



# What causes La Niña?



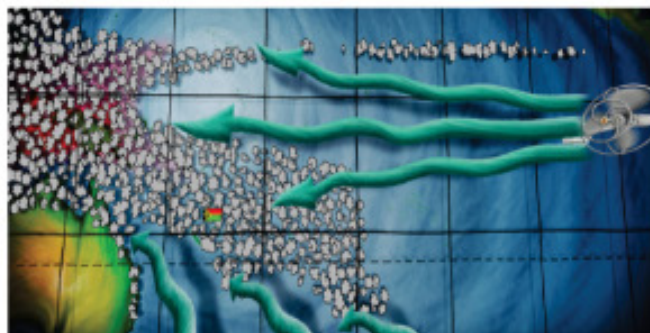
La Niña is part of what is known as the Southern Oscillation Index.

The simplest way to understand La Niña is through the movement of warm water from the east of the Pacific Ocean to the west.

The top layer of the tropical Pacific Ocean (about the first 200 metres) is warm, with water temperatures between 20°C and 30°C. Underneath, the ocean has a colder more stable temperature.

Winds over the tropical Pacific, known as the trade winds, blow from east (South America) to west (Australia) piling the warm top layer of water against the east coast of Australia and Indonesia. Indeed, the sea level near Australia can be one metre higher than at South America.

Warm water together with winds creates rainfall. With La Niña, the trade winds strengthen bringing more warm water to the Western Pacific and increasing our rainfall totals.



# How do you get ready for La Niña?

La Niña events have been happening for 100s of years, and are predicted to get worse under climate change.

But while floods caused by La Niña events can't be avoided, we can prepare for them so they will have less impact on what we do.

## Staying Healthy

During La Niña flooding can affect water sources and contaminate the water supply, which can lead to outbreak of diseases such as typhoid and scabies.

To protect water supplies and maintain health:

- Store excess clean water
- Cover water tanks and raise the walls of wells to keep out debris and prevent water contamination
- Ensure drainage channels around your house are cleared so water can easily drain away
- Clear areas prone to mosquitos
- Do not swim or bathe in rivers during or immediately following a flood