- Environmental changes can cause stress, reduced productivity and increased vulnerability to diseases and pests.
  - Monitor health of your animals and immediately report any disease cases to your livestock extension officers.
  - Clean shelters regularly.
  - Record keeping as part of good farm management practices

Waste Management

- To reduce the impact of animal waste in the environment, greenhouse gas emission and public health:
  - Encourage rotational pasture grazing to allow recovery of pasture and control of worms.
  - Fence water ways.
  - Composting animal manure for use as organic fertilizers in gardens, pastures and fodder plants.
  - Integrate cattle and plantation cash crop for value adding and utilizing animal wastes as fertilizers.

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SPC Secretariat of the Pacific Community

For More Information:

Contact your local animal health extension officer or the Secretariat of the Pacific Community – LRD helpdesk: **lrdhelpdesk@spc.int**

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Illustrations by John Bryan Mausio

CLIMATE CHANGE ADAPTATION FOR SMALLHOLDER

CATTLE FARMING IN THE PACIFIC

Climate change affecting **cattle** production in the Pacific is a reality. Let us be prepared.

CLIMATE CHANGE IMPACTS:

Increased Temperature	Drought & Variable Rainfall	Increased Cyclones & Flooding Intensity	Sea Level Rise
			
1. Decreased production (reduced grazing, low body weight, less milk, fewer offspring). **2.** Animals become temperamental and difficult to handle. **3.** Heat stress. **4.** Loss of animals and genetic resources	**1.** Poor pasture and fodder quality and reduced quantity. **2.** Water shortage. **3.** Heat stress. **4.** Loss of animal and genetic resources. **5.** Fire risks to pasture and structures. .	**1.** Destruction of farm sheds and pastures cover. **2.** Loss of production due to: • Increased incidence of pest and diseases such as foot rot. • Shortage of feeds due to flooded pastures. • Loss of animals due to drowning and diseases. **3.** Increased risk of spread of animal diseases to humans, example leptospirosis	**1.** Reduced land area for grazing and natural shelter for cattle. **2.** Salt spray damage to pasture and fodder crops. **3.** Salt contaminated drinking water.

ADAPTATION OPTIONS:

• Select cattle breeds that are tolerant to high temperatures. • Plant tree shades in paddocks. • Build open-sided sheds. • Cut and carry to supplement non-grazing period. • Access to a good water source.	• Planting of drought tolerant pasture and fodder species. • Supplement feeding through cut-and-carry grasses and introduce silage. • Installation of additional water sources such bore water, rain water tanks. • Consider use of commercially available stock feeds. • Adjust stocking rates.	• Locating farm sites away from flood-prone areas. • Planting trees to cover and wind breaks. • Have an animal evacuation plan in place. • Organising animals for rapid relocation during floods and cyclones. • Monitor health of animals and family members. • Cut and carry during periods of flood and cyclones to supplement feed.	• Locate farm sites on elevated areas. • Adjust stocking rates appropriate for available grazing areas. • Planting of salt tolerant pasture and fodder crops. • Installation of additional rain water harvesting and storage facilities.