

## General Bee Health Management

- \* Check hives for signs of stress.
- \* Monitor health of your hives and immediately report any disease cases to your livestock extension officers.
- \* Source bee stocks from proven healthy apiaries.
- \* Record keeping as part of good farm management practices



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:

[lrhelpdesk@spc.int](mailto:lrhelpdesk@spc.int)

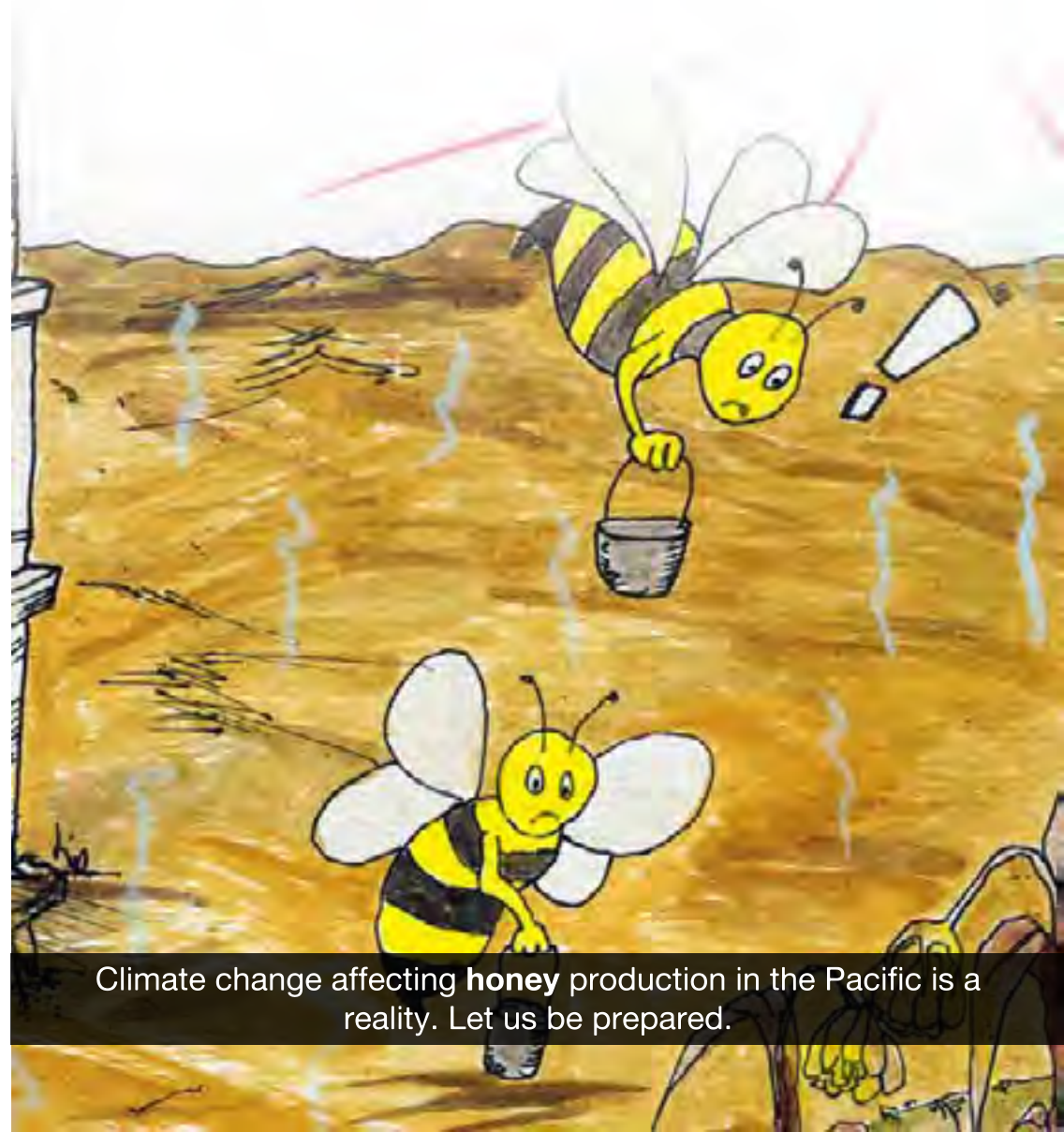
Produced by the Animal Health and Production Team, Land Resources Division, Secretariat of the Pacific Community in collaboration with the

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Illustrations by John Bryan Mausio






SPC-AHP CC FACT SHEET NO:05

# CLIMATE CHANGE ADAPTATION FOR SMALLHOLDER BEE FARMING IN THE PACIFIC



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

## CLIMATE CHANGE IMPACTS:

Increased Temperature	Drought And Low Rainfall	Higher Rainfall	Increased Cyclones And Flooding	Sea Level Rise
				
<ol style="list-style-type: none"> <li>1. Increased fanning activity to keep hives cool.</li> <li>2. Increased energy use leading to stress</li> <li>3. Increased temperature inside hives can kill immature bees (brood).</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced nectar sources as plants produce less flowers.</li> <li>2. Less water available for bees to collect for colony use.                             <ul style="list-style-type: none"> <li>• Lower food production - stored food in hives are quickly depleted.</li> </ul> </li> <li>3. Fire risk on hives during drought</li> </ol>	<ol style="list-style-type: none"> <li>1. Risk of too much water leaking into hives reducing honey quality.</li> <li>2. Bees cannot fly out to forage.                             <ul style="list-style-type: none"> <li>• Lower food production - stored food in hives are quickly depleted.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. Hives destruction.</li> <li>2. Food sources (trees and plants) destroyed.                             <ul style="list-style-type: none"> <li>• Risk of food shortage in the colony.</li> </ul> </li> <li>3. Increased stress to the colony</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced food sources as plants affected by salt water intrusion.</li> <li>2. Increased salinity of water sources.</li> </ol>
ADAPTATION OPTIONS:				
<ul style="list-style-type: none"> <li>• Select breeds of honeybees adapted to high temperature.</li> <li>• Provide water sources for hives.</li> <li>• Increase ventilation in hives.</li> <li>• Increase hives entrance space.</li> <li>• Locate hives under shades.</li> <li>• Paint outside of hives white to reflect heat to keep hives cool.</li> </ul>	<ul style="list-style-type: none"> <li>• Planting of drought-tolerant trees and plants.</li> <li>• Provide water sources for hives.</li> <li>• Provide sugar syrup supplements during drought.</li> <li>• Locate hives far from fire-prone area.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide waterproofed hive tops.</li> <li>• Provide sugar syrup supplements during high rainfall events.</li> <li>• Properly position hives to avoid rain water lodging inside.</li> <li>• Locate hives under shelter.</li> </ul>	<ul style="list-style-type: none"> <li>• Locate hives at sheltered sites and away from flood prone areas.</li> <li>• Provide sugar syrup supplements close to hives (covered from rain).</li> <li>• Have an animal evacuation plan in place.</li> <li>• Secure hives with ropes and weights.</li> </ul>	<ul style="list-style-type: none"> <li>• Plant salt-tolerant, coastal flowering plants and tress (e.g. mangroves).</li> <li>• Provide sugar syrup supplements.</li> <li>• Provide water sources for hives.</li> </ul>