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Aka tika Uira

How Rarotonga Growers Adapt to Climate Change

Selane Tairea Te Puna Vai Mārama | The Cook Islands Centre for Research & Lauren Turner; Heather Worth; Tearoa Iorangi; Puna Kamoe; Kuraiti Rasmussen; Vincencia Vakapora; Eitiare Vano



Background



The Pacific Heads of Agriculture and Forestry Services' (PHOAFS) Regional Research Agenda identified the following two researchable priorities >

A team of researchers were nominated by the PHOAFS from the countries (Cook Islands, Fiji, Nauru, Tonga, Papua New Guinea and the Marshall Islands) to conduct new research that addresses both of these.

A survey was designed by devised by SPC and Te Puna Vai Mārama (the Cook Islands Centre for Research) which was adapted and administered by the research team in their respective countries.

CLIMATE RESILIENCE

More research is desired on the experiences of Pacific farmers adapting their crops or production systems to changing climatic conditions.

CENTERING FARMERS IN RESEARCH

Research needs to center farmers' voices in the research process to bridge the disconnect between local communities, research, and decision makers, as well as encourage greater support for and adoption of the findings

Methodology

A cross-sectional survey was carried out across August-September 2024 in Rarotonga, Cook Islands



WHAT DID WE ASK

Basic demographic information, followed by sets of questions on crops and crop selection; experiences of climate change; and adaptation and barriers.



WHO WAS SURVEYED

Random sample from Ministry of Agriculture's registry of active farmers and crop growers, with a small number recruited through community recommendations.

A total of 174 responses were collected, from a generally older (45-75+) and male (83%) cohort.



HOW WAS THE SURVEY CONDUCTED

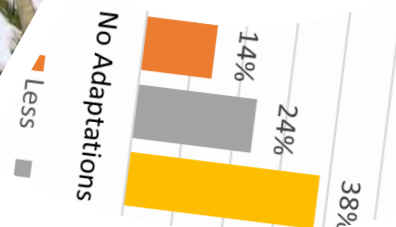
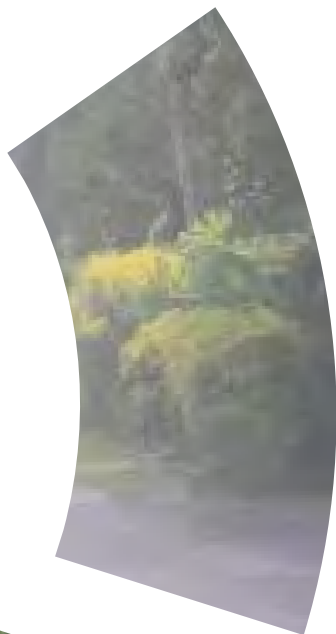
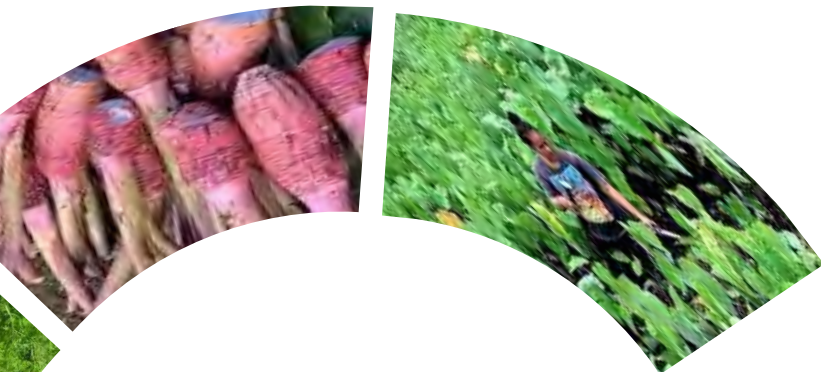
Enumerators from TPVM and Cook Islands Ministry of Agriculture administered the survey via portable tablets.



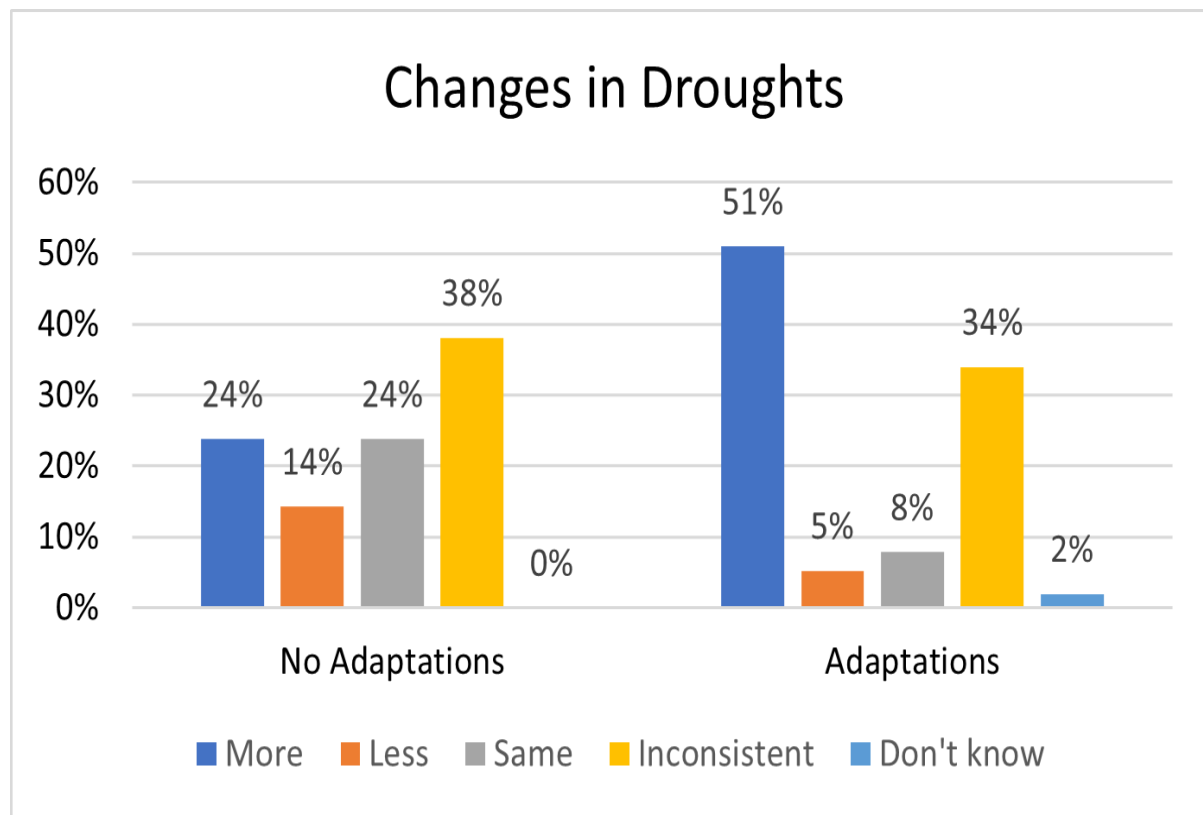
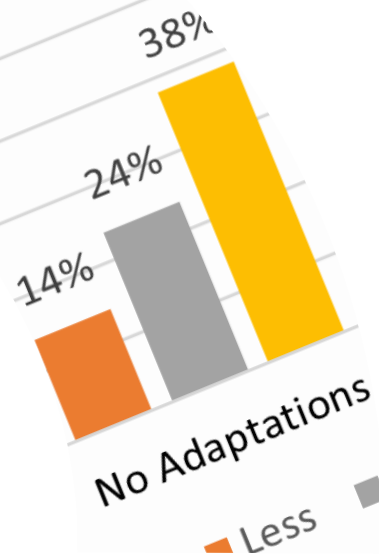
WHAT DID WE DO WITH THE DATA

Frequency and bivariate analyses were employed (eg. nonparametric tests such as X², fishers exact, Wann Whitney-U and Kruskal Wallis)

Climate Change

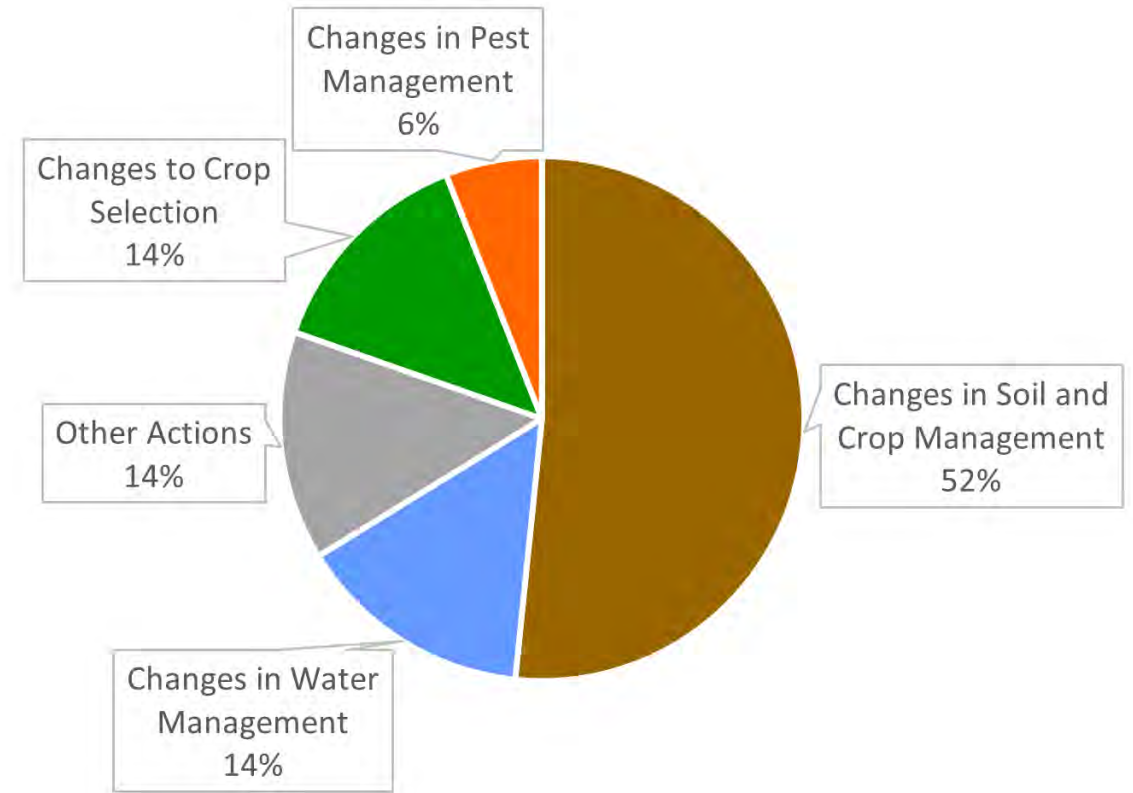
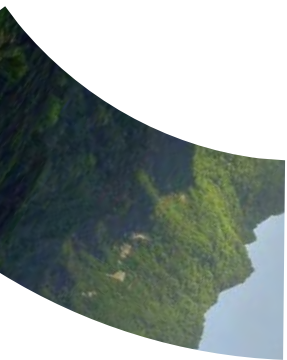


Maro



No Adaptation
Less

Tauvi



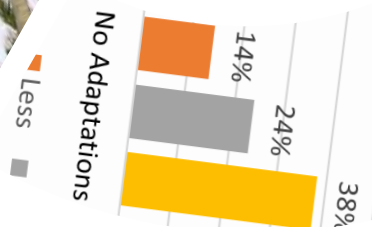
- Changes in Soil and Crop Management
- Changes in Water Management
- Other Actions
- Changes to Crop Selection
- Changes in Pest Management

No Adaptation
Less

Tauvi



Tauvi



Te Puna Vai Mārama
Cook Islands Centre for Research

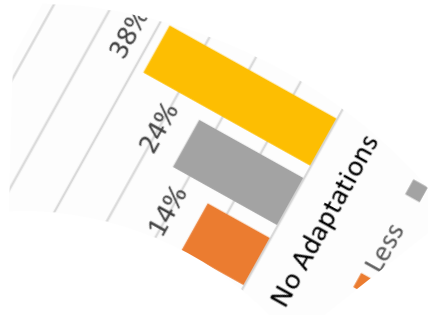


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Organic?

Tauvi



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Tauvi

14%
24%
35%



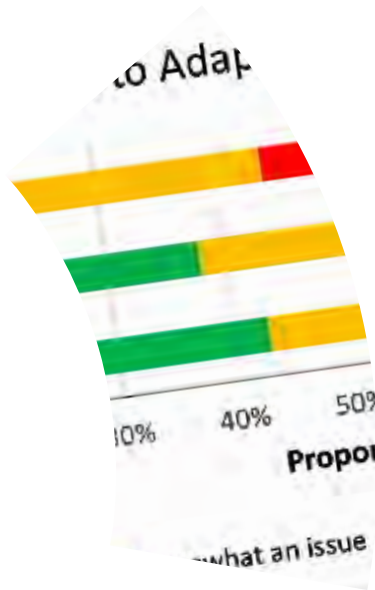
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Crop Selection

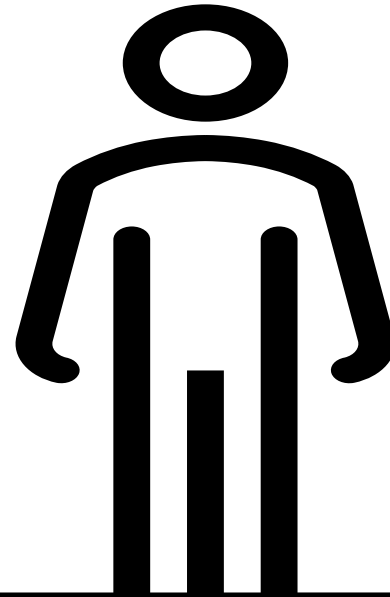
The farmers surveyed were not often adapting their crop selection in response to changing weather and climates. Only 24% ceased the production of at least one crop, only 10% introduced a new crop.



Tareni

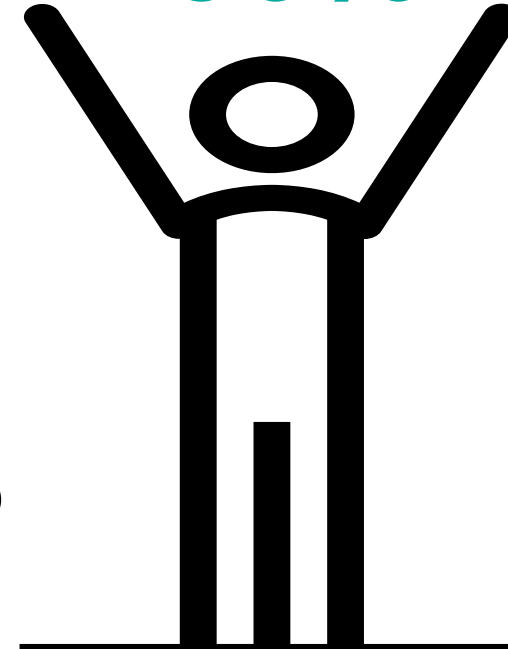


30%



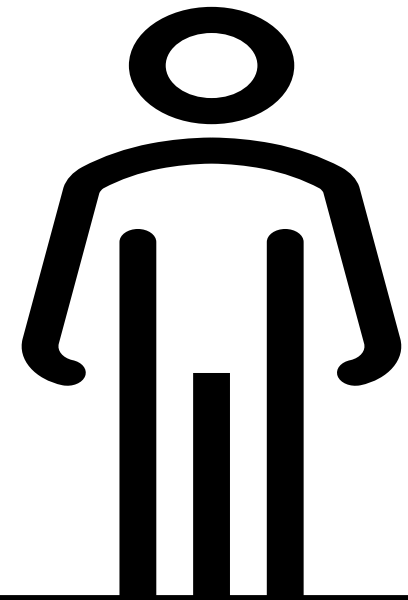
Lack of Resources/
Information

56%



Government
Support

28%



Funding/Finances



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Implications

- To use the insights from this presentation to improve collaboration between farmers, researchers and decision makers.
- To use the information provided to develop targeted support programs, enhance resource access and guide climate resilient agricultural policies
- Motivate and inspire resistance against Climate Change





Meitaki Ma'ata

