

The Climate-Smart Pacific Food Systems Programme – Fiji



The goal is to build the wellbeing and resilience of communities to the impacts of climate change through Pacific-led, climate-smart food systems.

The Bioeconomy Science Institute is partnering with Pacific government agencies, civil society and industry to implement the four-year, Climate-Smart Pacific Food Systems Programme.

- The programme is operating in Fiji, Solomon Islands, Papua New Guinea, Samoa, and Tonga and supported by the New Zealand Ministry of Foreign Affairs and Trade.
- The Climate-Smart Pacific Food Systems Programme has three themes:
 - Climate-smart food production
 - Stewardship of water, land and waste
 - Sustainable, resilient food value chains
- The programme is focusing on integrating scientific innovation with community-driven solutions to build food security, reduce postharvest losses, and improve agricultural sustainability and climate resilience.

ABOUT FIJI

- **Land Area:** 18,300 km²
- **Population:** 919,430
- **Agricultural Status:** Accounts for 8.1% of Fiji's GDP, major agricultural products include sugar, taro, cassava, turmeric, ginger as well as cash crops such as kava, coconut, fruit trees such as papaya and leafy green vegetables and eggplant



In Fiji

- This exciting initiative is being delivered through anchor partnerships between the Bioeconomy Science Institute and the Fijian Ministry of Agriculture, Waterways and Sugar Industry (MOAW&SI) and the Fijian Adventist Development and Relief Agency (ADRA)
- Bioeconomy Science Institute expertise combined with the experience, networks and knowledge of the local partners will create country-relevant solutions able to be scaled up
- Participatory action research (PAR) workshops were conducted with various communities in Fiji alongside in-country partners
- The research identified a range of climate challenges, including periods of excessive rain and heat, increasing pest and disease pressure, the rising cost of inputs and difficulties in finding the right seeds, and decreasing crop harvests
- To address weather unpredictability, BSI and MOAW&SI conducted covered cropping trials comparing different materials, height and crop varieties in the Sigatoka Valley
- To address emerging pests and diseases challenges, BSI and in-country partners MOAW&SI and ADRA conducted several trainings and workshops to build partner and farmer capacity in scouting and diagnosing pests and diseases on farm
- BSI and MOAW&SI are also testing new registered insecticides to broaden the availability of agrichemicals farmers can access to manage pests in Fiji
- To address declining yields, BSI and MOAW&SI are conducting trials to assess the efficacy of nitrate quick tests, in addition to conducting trainings on soil nutrients and use of fertilisers
- To address flooding during extreme wet seasons, BSI and MOAW&SI are trialling raised beds to minimize produce being flooded



Climate Change Challenges Identified from PAR



Unpredictable
Seasons



Pests &
Diseases



Seeds & Planting
Materials



Agrichemical
Use



Water &
Irrigation

Year 2 Highlights

- Collaboration agreement signed with MOAW&SI
- Collaboration agreement signed with ADRA
- New insecticide registered for use and importation in Fiji
- Scope of activities in Fiji has been extended to include the Rewa Delta
- Training modules incorporate adult education principles

Next 6-12 Months

- Include trials to incorporate legume species to crop rotations to support improved soil health (and improve yield)
- Conduct soil testing and mapping of critical arable land in the selected Rewa Delta communities to inform crop selection and management
- Mulching trials will be conducted to build resilience towards droughts



What is the Bioeconomy Science Institute?

The Bioeconomy Science Institute is a New Zealand Government-owned Public Research Organisation. It brings diverse scientific expertise, including skills in land use suitability, achieving ecosystem balance, quantifying impacts and adapting to change, nutrient management, efficient water use, pest and disease management, and the reduction of postharvest losses and waste.

The organisation leverages its technical capabilities to drive its international development initiatives and has a long-standing history of working with Pacific partners to support sustainable and resilient food systems.



**Applying research to
support economic growth
and resilience, a healthy
environment and beneficial
social outcomes**

For more information

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