

FARMERS' GUIDE TO CLIMATE “SMART” AND SUSTAINABLE CROPPING PRACTICES IN THE PACIFIC ISLANDS



INTRODUCTION TO THE FARMER TRAINING MODULES



**“FARMING PRACTICES THAT ARE CLIMATICALLY,
ENVIRONMENTALLY AND ECONOMICALLY SMART”**

August 2022

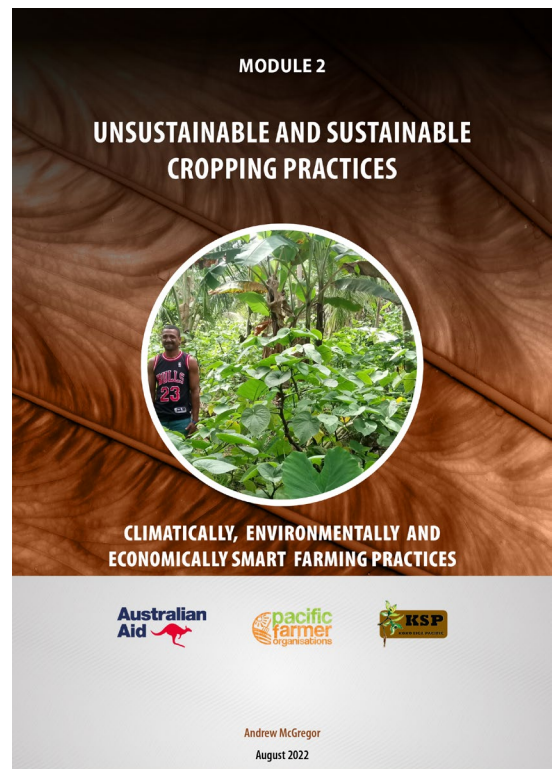


INTRODUCTION TO THE FARMER TRAINING MODULES

This guide for farmers and their trainers is comprised of a series (8) of training modules that introduce and describe cropping practices which, if adopted, will enable Pacific Island farmers to provide sustainable livelihoods for their families, now and into the future. The modules specifically focus on Fiji and other Pacific Island countries, with the emphasis being on the people who will implement the practices – **that is, the farmers**. The underlying message of this guide is that the cropping practices farmers use, must take into account not only present and future climate challenges and opportunities, but also the environment and the economic context. The eight training modules explain to farmers the rationale for adopting the practices, that is the **‘why’**, and also the method for adopting the practices, that is the **‘how’**.

If farmers are to ensure sustainable livelihoods for their families, now and into the future, the cropping practices they adopt must address these three pillars – climate, environment and economy.

The eight modules, and their authors, are:



MODULE 3

SUSTAINABLE AGROFORESTRY CROPPING SYSTEMS



CLIMATICALLY, ENVIRONMENTALLY AND
ECONOMICALLY SMART FARMING PRACTICES



Livai Tora | Rohit Lal | Fr. Isaia Wairoga | Andrew McGregor
August 2022

MODULE 4

SUSTAINABLE PRACTICES TO CONSERVE SOIL AND PROTECT CROPS FROM EXTREME EVENTS



CLIMATICALLY, ENVIRONMENTALLY AND
ECONOMICALLY SMART FARMING PRACTICES



Livai Tora | Aad van Santen | Andrew McGregor
August 2022

MODULE 5

SEEDS AND SEEDLINGS FOR SUSTAINABLE FRUIT AND VEGETABLE PRODUCTION



CLIMATICALLY, ENVIRONMENTALLY AND
ECONOMICALLY SMART FARMING PRACTICES



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August 2022

MODULE 6

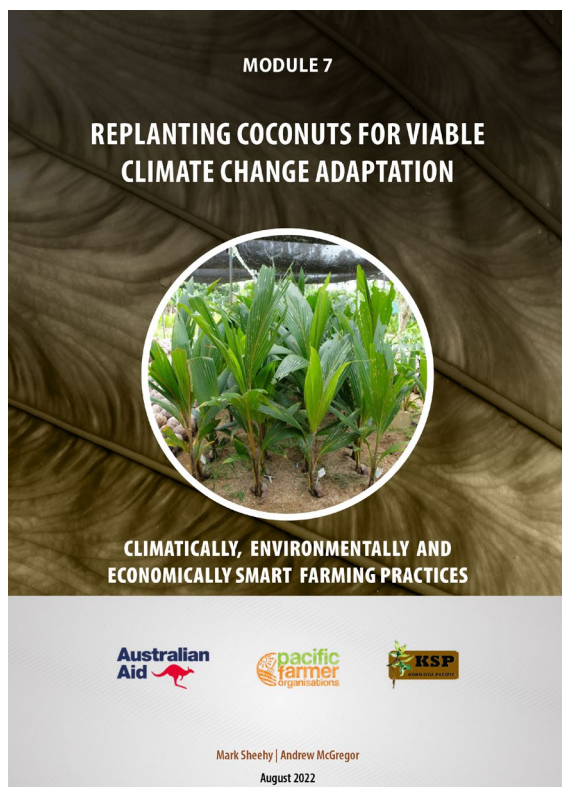
EFFICIENTLY MAKING AND USING COMPOST



CLIMATICALLY, ENVIRONMENTALLY AND
ECONOMICALLY SMART FARMING PRACTICES



Livai Tora | Fr. Isaia Wairoga | Aad van Santen | Andrew McGregor
August 2022



These written modules are supported by short videos, which mainly focus on implementing the sustainable farming practices recommended and described in the modules.

The Tutu Rural Training Centre (TRTC) on Taveuni has commenced trialing these modules with its own 'training of trainers' program with the support of the Pacific Islands Farmer Organization Network (PIFON). It is expected that PIFON will play a lead role in the dissemination of the training modules through their farmer organization network and website. The trainers are staff from TRTC supported by Dr Rohit Lal from the Ministry of Agriculture (MoA).

It is envisaged that farmer groups from other areas in Fiji will send selected members to TRTC for training in the use of these modules and to observe the TRTC system firsthand. In the future, it is expected that farmer organizations from other Pacific Island countries will adopt a similar approach, which will probably require a few of their staff and members to attend TRTC for some initial training. Adjustment to the training modules to better suit each country situation is also likely to be needed. A number of regional farmer organizations have already expressed their interest in being involved with the support of PIFON, including the Farmer Support Organization (FSA) in Vanuatu and the Kastom Garden Association (KGA) in the Solomon Islands.

Funding for the modules was provided by the Australian Aid, through the Australia Pacific Climate Partnership (APCP). The modules built on the three episodes of Fiji TV's 'Green Pillars' program that addressed the topic of climate change and crop resilience. The production of the 'Green Pillars' episodes was supported by the APCP in partnership with the Market Development Facility (MDF) and AgChem Ltd.

1 Andrew McGregor et. al. 2019, A Review of the Tutu Rural Training Centre Courses
<https://pacificfarmers.com/wp-content/uploads/2019/10/Tutu-Rural-Training-Centre-Courses.pdf>

Fiji TV generously made available all of the video material taken for the 'Green Pillars' program. The PIFON supplied "Tel-A-Woman" video material and photographs. Additional video material was specifically produced for these farmer training modules by Moko Productions.

The production of the 'Green Pillars' episodes and the farmer training modules was coordinated by Koko Siga Pacific (KSP) in collaboration with a number of organizations who kindly provided on-site locations for the modules. These included: the Tutu Rural Training Centre (TRTC) on Taveuni; the Pacific Islands Farmer Organization Network (PIFON); the Fiji Ministry of Agriculture (MoA); Bula Agro Ltd in Nadi; and Prakash's 'Food Forest' farm (Lautoka). The Pacific Horticultural and Agricultural Market Access Program (PHAMA Plus) shared the work they are doing on 'Climate Smart Root Crop Farming'.

Dr Johanna Johnson (C2O Consulting), Dr Mary Taylor (Associate Professor University of the Sunshine Coast), Professor Dr John Morrison (Emeritus Professor of Environmental Science University of Wollongong), Dr Poasa Nauluvula (PHAMA Plus), Dr Dick Watling (Environment Consultants, Fiji) and Peter Kjaer (Produce Pacific) provided peer reviewing and technical advice.

We would like to thank all the individuals and organizations for making the production of the Pacific Island farmer training modules possible.



Tutu Young Farmers practicing agroforestry based yaqona production on their allocated blocks at Tutu with their trainers (Fr. Isaia)



THE LIST OF ABBREVIATIONS USED IN THE FARMER TRAINING MODULES

ACIAR	Australian Centre for International Agricultural Research
ACP	African Caribbean and Pacific
APCC	Asia and Pacific Coconut Community
APCP	Australia Pacific Climate Partnership
CCP	Chottu's Coconut Products (Solomon Islands)
CIDP	Coconut Industry Development Project
CMV	Cucumber Mosaic Virus
CNO	Crude Coconut Oil
CRB	Coconut Rhinoceros Beetle
CSOs	Civil Society Organizations
CSR	Colonial Sugar Refinery
CTA	Technical Centre for Agriculture and Rural Cooperation
DFAT	Department of Foreign Affairs and Trade
eCO²	Elevated carbon dioxide
ENSO	EL Nino Southern Oscillation
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCM	Fiji Coconut Millers
FJD	Fiji Dollars
FRIEND	Foundation for Rural Integration and Enterprise Development
GHG	Greenhouse gas
GM	Gross Margin
Ha	Hectare
IGP	Indo-Gangetic Plain
IFAD	International Fund for Agricultural Development
IPCC	Intergovernmental Panel on Climate Change
KSP	Kokosiga Pacific (Fiji) Ltd
MDF	Market Development Facility Program
MoA	Ministry of Agriculture
MSMA	Monosodium Methylarsonate
NGO	Non-Governmental Organization

NPK	Nitrogen Phosphorous and Potassium Fertilizer
NWC	Nature's Way Cooperative
PACCSAP	Pacific-Australia Climate Change Science and Adaptation Planning
pH	A scale used to specify the acidity or basicity of an aqueous solution
PHAMA	Pacific Horticultural and Agricultural Market Access
PICs	Pacific Island Countries
PIFON	Pacific Islands Farmer Organization Network
PNG	Papua New Guinea
RBD	Refined Bleached and Deodorized coconut oil
R&E	Research and Extension
RH	Relative Humidity
SLR	Sea Level Rise
TAW	Tel-A-Woman
TC	Tropical Cyclones
TLB	Taro Leaf Blight
TRTC	Tutu Rural Training Centre
UHT	Ultra-Heat Treated
USD	United States Dollars
VARTC	Vanuatu Agricultural Research and Technical Centre
VCO	Virgin Coconut Oil