

SPC/GIZ regional programme

COPING WITH CLIMATE CHANGE IN THE PACIFIC ISLAND REGION (CCCPIR)

DOCUMENTATION



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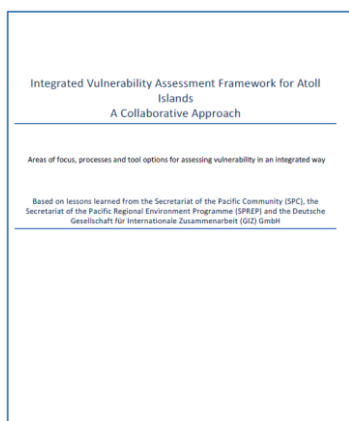
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Abbreviations

BMZ	German Federal Ministry for Economic Cooperation and Development
CBA	Cost-benefit analysis
CCCPIR	Coping with Climate Change in the Pacific Island Region
CEAFM	Community-based Ecosystem Approach to Fisheries Management
FAD	Fish Aggregation Device
FAME	Fisheries, Aquaculture and Marine Ecosystems
FSM	Federated States of Micronesia
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IRENA	The International Renewable Energy Agency
KJIP	Kiribati Joint Implementation Plan
MRMD	FSM Marine Resource Management Division
NUC	Nauru Utilities Corporation
OCCD	PNG Office of Climate Change and Development
PACC	Pacific Adaptation to Climate Change programme
PIFS	Pacific Island Forum Secretariat
PNG	Papua New Guinea
PPA	Pacific Power Association
PRA	Participatory Rural Appraisal
REDD	Reducing Emissions from Deforestation and forest Degradation
RMI	Republic of the Marshall Islands
SE4All	Sustainable Energy for All
SOPAC (now GSD)	SPC Geoscience Division
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TNC	The Nature Conservancy
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USP	University of the South Pacific



Guidelines & Toolkits

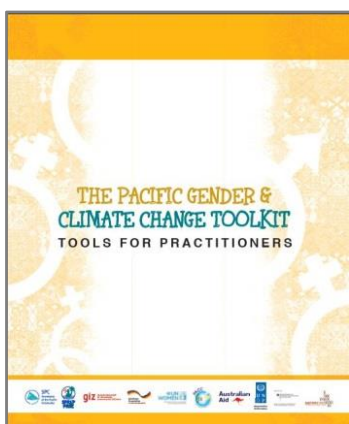


INTEGRATED VULNERABILITY ASSESSMENT FRAMEWORK FOR ATOLL ISLANDS – A COLLABORATIVE APPROACH (FINAL DRAFT AS OF AUGUST 2015)

This resource material is designed as a generic guide for planning, implementing and reporting an integrated vulnerability assessment that targets atoll communities in Pacific Islands. It is based on a resilient development approach that combines the assessment of vulnerability to climate change and disasters.

Prepared by: Vuki Buadromo, SPC; Patrina Dumar, SPC/GIZ CCCPIR Consultant; Daniel Gerecke, GIZ; Nicollette Goulding, GIZ; Dr. Siosua Halavatu, SPC; Carlo Iacovino, SPREP; Marita Manley, GIZ; Azarel Mariner, SPREP; Rhonda Bower Robinson, SPC; Etuati Ropeti, SPC; Hanna Sabass, GIZ; Noa Tokavou, SPC.

2015

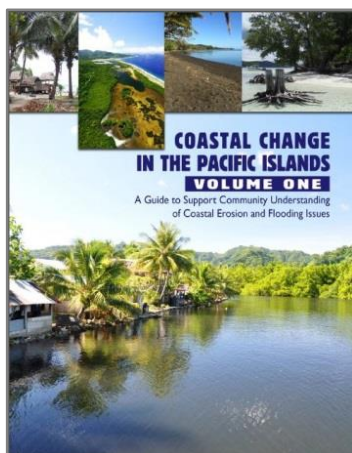


THE PACIFIC GENDER AND CLIMATE CHANGE TOOLKIT

Gender equality is central to achieving a sustainable and resilient future for Pacific islands. This toolkit is designed to support climate change practitioners working in national governments, non-governmental organisations, regional and international organisations, integrate gender into all aspects of policy, programming and project work.

Prepared by: Ms Aliti Vunisea (Secretariat of the Pacific Community - SPC), Ms Brigitte Leduc (SPC), Ms Karen Bernard (United Nations Development Programme (UNDP)), Ms Katalaine Duaibe and Ms Laura Cleary (UN Women), Ms Marita Manley (Deutsche Gesellschaft für Internationale Zusammenarbeit - GIZ), Mr Peniamina Leavai (Secretariat of the Pacific Regional Environment Programme - SPREP, PACC); supported by Ms Nicollette Goulding (SPC/GIZ), Ms Amelia Caucau (SPC/GIZ), Ms Kate Morioka (Consultant), Ms Anne Moorhead (Editor) and Ms Barbara Hau'ofa (Editor).

2014

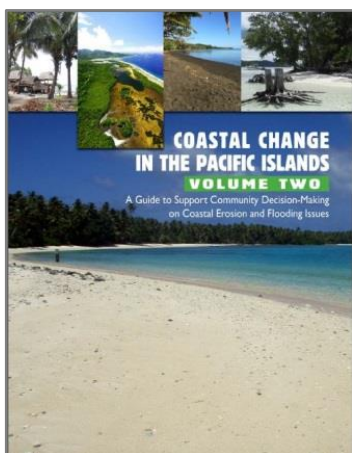


COASTAL CHANGE TOOLKIT (VOLUME 1) – A GUIDE TO SUPPORT COMMUNITY UNDERSTANDING OF COASTAL EROSION AND FLOODING ISSUES

This document is part of a two-volume guide that provides a foundation for communities to assess local coastal processes and the impacts humans are having on coastal areas, and identify appropriate actions required to build the resilience of coastlines and communities. It is divided into 1) Volume One: Outreach 2) Volume Two: Planning. This volume (1) provides detailed outreach materials to support an understanding of how coastlines work and what causes coastal flooding and shoreline change (natural and human-related).

Prepared by: Gombos, M., Ramsay, D., Webb, A., Marra, J., Atkinson, S., & Gorong, B. (Eds.)

2014



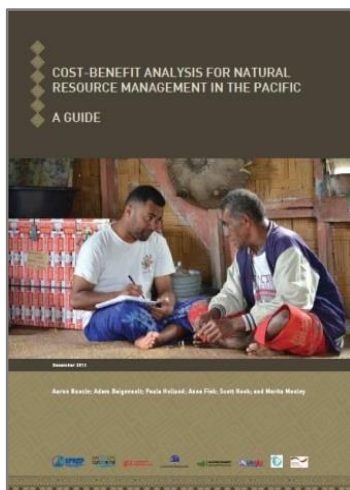
COASTAL CHANGE TOOLKIT (VOLUME 2) – A GUIDE TO SUPPORT COMMUNITY DECISION-MAKING ON COASTAL EROSION AND FLOODING ISSUES

This volume (2) provides participatory processes that enable community members to use local knowledge to understand changes in their coastline and support decision-making that is best for local situations and capacity.

Prepared by: Gombos, M., Ramsay, D., Webb, A., Marra, J., Atkinson, S., & Gorong, B. (Eds.)

2014

Supported by the Australian Government funded community based adaptation project led by The Nature Conservancy (TNC), Secretariat of the Pacific Community (SPC), the Coping with Climate Change in the Pacific Island Region project funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), and United States Agency for International Development (USAID).



COST-BENEFIT ANALYSIS FOR NATURAL RESOURCE MANAGEMENT IN THE PACIFIC – A GUIDE

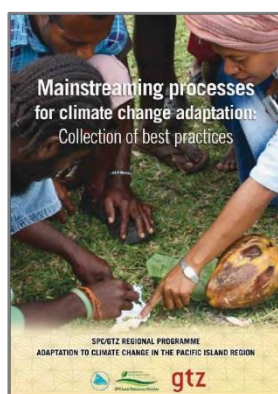
There has been an increased interest in the use of cost-benefit analysis (CBA) in the Pacific in recent years. In the last 12 months regional training activities in CBA have, for example, been delivered to support natural resource projects aimed at invasive species management, climate change mitigation and adaptation, environmental conservation and food security. There is a wide variety of guides and manuals on CBA across the globe. However, up to now there has been no published document that brings together the steps of CBA with an emphasis on the Pacific region. This guide is intended to fill that gap. It aims to support Pacific government and non-governmental organisations in their CBA activities, and to support training and capacity development in this area. The guide is also intended to standardise approaches to CBA by the agencies involved – SPC, SPREP, Pacific Island Forum Secretariat (PIFS), University of the South Pacific (USP), GIZ, UNDP – so that practitioners receive consistent advice and support.

Prepared by: Aaron Buncle (SPREP), Adam Daigneault (Landcare Research, New Zealand), Paula Holland (SPC), Anna Fink (SPC), Scott Hook (PIFS), Marita Manley (GIZ)

2013

Awareness materials

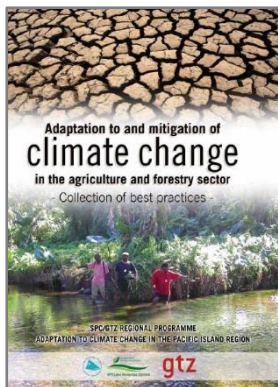
Booklets



MAINSTREAMING PROCESSES FOR CLIMATE CHANGE ADAPTATION: COLLECTION OF BEST PRACTICES

This collection of best practices looks at successful mainstreaming efforts to provide policy makers and planners in the Pacific with ideas and lessons learned. The examples, which come from different regions and sectors including the Pacific, are not only illustrating adaptation to climate change. Many examples originate from other related mainstreaming efforts like disaster risk management or environmental mainstreaming.

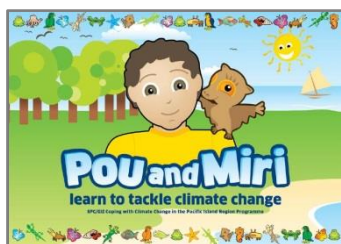
October 2010



ADAPTATION TO AND MITIGATION OF CLIMATE CHANGE IN THE AGRICULTURE AND FORESTRY SECTOR: COLLECTION OF BEST PRACTICES

This collection of best practices is part of a wider effort to cope with climate change. Multiple programmes planned and underway right now will produce numerous experiences from the region describing what works and what doesn't in the specific geographical, cultural and social situations on our islands.

October 2010



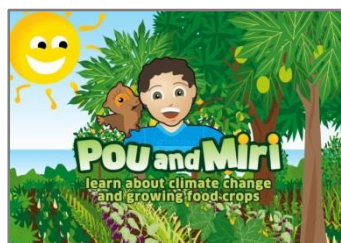
POU AND MIRI LEARN TO TACKLE CLIMATE CHANGE

With a young audience in mind, the booklet is a colourful pictorial recounting the adventures of a young boy, Pou, and his new friend, the fruit bat Miri, as they journey to reunite Miri with her family. Miri represents a rare fruit bat in Fiji, locally known as mirimiri.

The story highlights the various impacts climate change will have on an island ecosystem and raises the importance of improved natural resource management as a coping mechanism against these impacts.

September 2011

Available in: English, Vosa Vaka Viti, French, Tongan, Pidjin

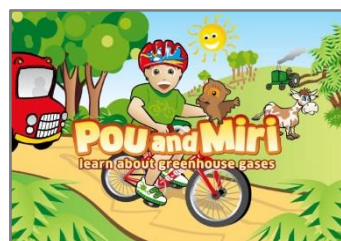


POU AND MIRI LEARN ABOUT CLIMATE CHANGE AND GROWING FOOD CROPS

This booklet for children explains how climate change will affect our crop production. It describes some methods and technologies to help cope with these changes.

December 2012

Available in: English, Vosa Vaka Viti, Tongan, Pidjin

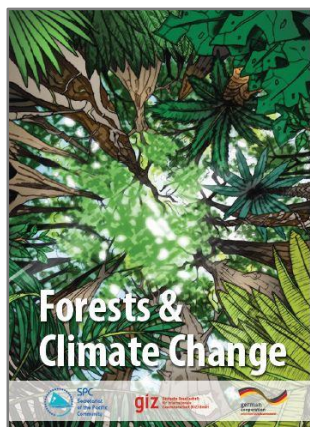


POU AND MIRI LEARN ABOUT GREENHOUSE GASES

This Pou and Miri booklet for children describes the main greenhouse gases that are causing global warming. Also informative for adults.

December 2012

Available in: English, Vosa Vaka Viti, Tongan, Pidjin

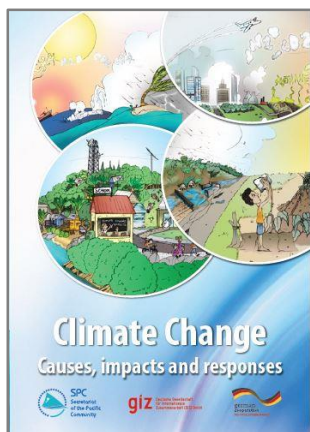


FORESTS AND CLIMATE CHANGE

This pictorial brochure explains how forests help to mitigate greenhouse gas emissions. Also other functions of the forests in regulating local climate and supporting the nutrient cycle are explained. The loss of forests can lead to the loss of traditional skills and cultural values relating to trees and forests. Some of the sustainable forests conservation methods are mentioned. Target groups are communities.

2013

Available in: English and Vosa Vaka Viti



CLIMATE CHANGE – CAUSES, IMPACTS AND RESPONSES

This pictorial brochure explains the causes of climate change and impacts in the Pacific and provides some adaptation and mitigation responses.

January 2013

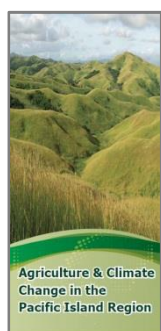
Available in: English, Tongan, Vosa Vaka Viti



FORESTS, CLIMATE CHANGE & REDD-PLUS

This brochure describes the relationship between forests and climate change and what role REDD-Plus can play in coping with climate change impacts.

October 2012

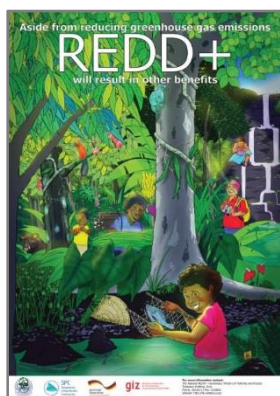


AGRICULTURE & CLIMATE CHANGE IN THE PACIFIC ISLAND REGION

This brochure explains the impacts of climate change on agriculture, focusing on loss of soil productivity, declining agricultural yields, new pests and diseases, desertification, water resources, and erosion of agrobiodiversity.

July 2010

Posters



ASIDE FROM REDUCING GREENHOUSE GAS EMISSIONS REDD+ WILL RESULT IN OTHER BENEFITS

An awareness poster on REDD+ benefits [also available as a sticker].

2015



THE ALPHABET

This environment Alphabet poster shows native animals, plants, weather symbols and traditional Pacific Island food. It will support primary school students to appreciate their local native environment. At a later stage this enables students to better understand how weather and changes in our climate affect our environment and ultimately the people.

June 2013



GROWING CROPS IN A CHANGING CLIMATE

A poster showing different techniques and approaches for growing crops in the face of a changing climate.

2013

Available in: English, Vosa Vaka Viti, Tongan



LEARN ABOUT GREENHOUSE GASES

A poster describing the main greenhouse gases and how we can reduce their emissions.

2013

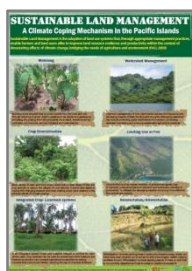
Available in: English, Vosa Vaka Viti, Tongan



FORESTS, CLIMATE CHANGE & REDD-PLUS

An awareness poster on forests, climate change and REDD-Plus.

2012



SUSTAINABLE LAND MANAGEMENT

A poster illustrating sustainable land management practices to better cope with the effects of climate change.

2010

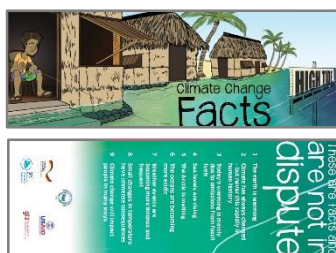
Bookmarks



FOREST AND CLIMATE CHANGE

A bookmark highlighting facts about forests and climate change.

2015



CLIMATE CHANGE FACTS

A bookmark highlighting climate change facts in the Pacific.

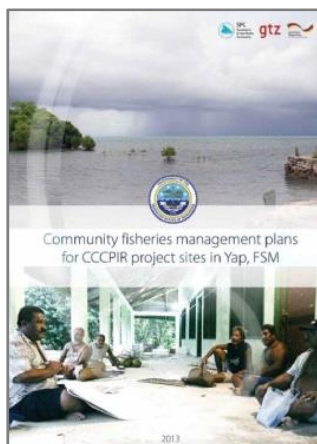
2014

Laguages: English, Vosa Vaka Viti





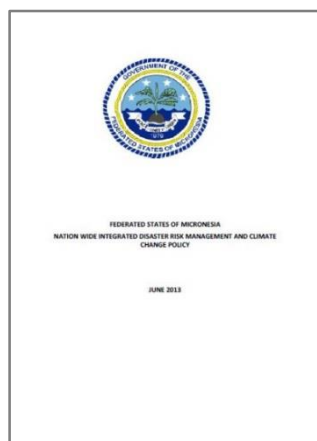
Policies and Plans



COMMUNITIES FISHERIES MANAGEMENT PLANS FOR CCCPIR PROJECT SITES IN YAP, FSM

This management plan outlines the objectives for the sustainable management of coastal fisheries resources and the strategies to be employed to achieve them. It also provides key adaptation activities to support communities in a changing environment and to assist building their resilience to the impact of climate change. The management actions, strategies and adaptation measures apply to the communities of Riken & Wanyan, West Fanif and Rumung as specifically provided for in this plan.

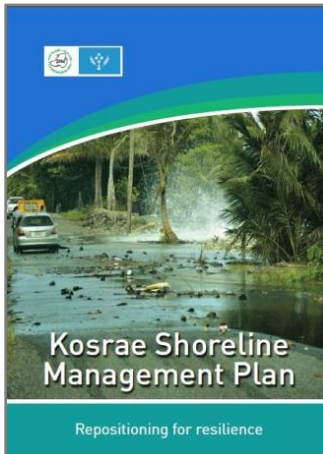
2013



FEDERATED STATES OF MICRONESIA (FSM) – NATIONWIDE INTEGRATED DISASTER RISK MANAGEMENT AND CLIMATE CHANGE POLICY

This policy has been developed in recognition of the need to safeguard the development of FSM's people, resources and economy, now and in the future, to the risks posed by a changing climate and the range of natural and human-made hazards to which the country is exposed. This is to be achieved through the pro-active integration of disaster risk reduction, climate change adaptation and climate change mitigation (henceforth referred to as 'greenhouse gas emissions reduction') considerations into relevant national, sectoral, state and community-level development strategies and programs.

June 2013



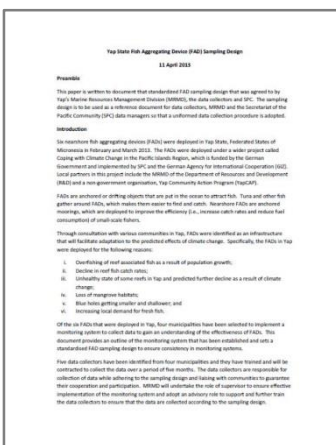
THE KOSRAE SHORELINE MANAGEMENT PLAN

The Shoreline Management Plan was an initiative of the Development Review Commission (now Kosrae Island Resource Management Authority) in the year 2000. Since the first Plan was produced, much more is now known of the potential changes that will be caused by climate change and sea level rise. This revision of the Shoreline Management Plan incorporates this information, what it means for coastal areas on Kosrae and the communities and development located there, and sets out a pathway over the next one to two generations to create a more resilient society and one that provides a secure foundation for our future generations to better manage the ever increasing impacts of climate change and sea level rise on Kosrae.

The revision was prepared by: Doug Ramsey (National Institute of Water and Atmospheric Research, Arthur Webb (SPC-SOPAC), Simpson Abraham (FSM PACC Coordinator), Robert Jackson (Kosrae Island Resource Management Authority, and Blair Charley (Kosrae Island Resource Management Authority).

2011

Guidelines



YAP STATE – FISH AGGREGATING DEVICE (FAD) SAMPLING DESIGN

This paper is written to document that standardized FAD sampling design that was agreed to by Yap's Marine Resources Management Division (MRMD), the data collectors and SPC. The sampling design is to be used as a reference document for data collectors, MRMD and SPC data managers so that a uniformed data collection procedure is adopted.

April 2013

Awareness Materials – factsheets



THE COMMUNITY-BASED ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT

A programme factsheet on the Community-based ecosystem approach to fisheries management and climate change adaptation in the State of Yap

June 2013

Policies and Guiding Principles



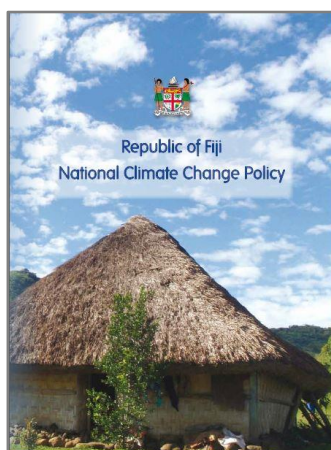
NA YAVUTU NI DRAKI VEISAU E VITI – NA KEDRA VEIYAVU, INAKI KEI NA ITUVATUVA LEWAI MATAU

[PRINCIPLES GUIDING THE IMPLEMENTATION OF THE FIJI CLIMATE CHANGE POLICY]

This publication outlines the 12 principles for guiding the implementation of the Fiji Climate Change Policy.

Available in: Vosa Vaka Viti

2015



NATIONAL CLIMATE CHANGE POLICY

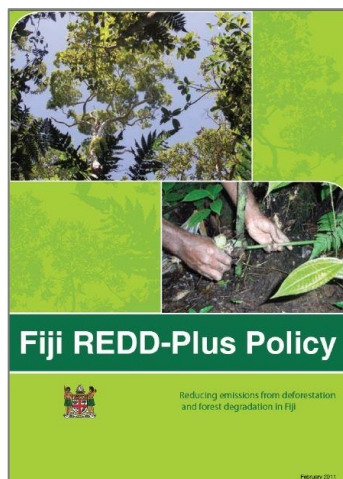
In 2007, the Cabinet endorsed Fiji's National Climate Change Policy Framework, which defined the position of government and other stakeholders on issues of climate change, climate variability and sea level rise. It also defined the various responsibilities of each stakeholder in the short and long term. The framework underwent review in 2011 to reflect current and emerging climate change issues at the local, national and international level. The reviewing and updating of the framework led to the development of this National Climate Change Policy, in accordance with the 2011 Corporate Plan of the Department of Environment under its Climate Change Programme.

The policy provides a platform for coordination among sectors, and direction on national positions and priorities regarding climate change mitigation and adaptation.

Prepared by: the Government of the Republic of Fiji, in consultation with the National Climate Change Country Team and national and divisional stakeholders

2012

Available in: English and Vosa Vaka Viti



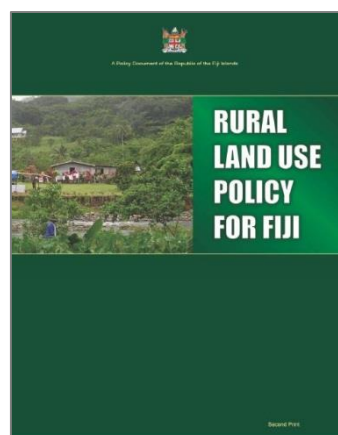
Fiji REDD-PLUS POLICY

The main goal of the forestry sector under the Fiji National Strategic Development Plan 2007–2011 is sustainable forest management. This involves a balanced focus on all seven thematic elements of sustainable forest management: the extent of forest cover; biological diversity; forest health and vitality; productive functions of forests; protective functions of forests; socio-economic functions of forests; and a legal policy and institutional framework. The Fiji REDD-Plus policy (Reducing Emissions from Deforestation and forest Degradation) aligns itself with the Forest Sector goal of sustainable forest management and also with the vision in the National Forest Policy 2007, broadly stated as: ‘Sustainable wellbeing and prosperity from diversified forests’, based on ‘the need to overcome the sector’s current focus on timber production and to widen the perspective to a balanced attention to the multiple economic, ecological and social values of Fiji’s forest resources’ covering the various thematic areas of sustainable forest management. The Fiji REDD-Plus policy, therefore, offers an additional excellent opportunity for Fiji to conserve its forests and at the same time benefit from the continued environmental services from the standing forests, including benefits through the conservation of its forest biodiversity.

Compiled by the Fiji Forestry Department; supported through the SPC/GIZ Regional Programme – CCCPIR with funding from BMZ

February 2011

Available in: English and Vosa Vaka Viti



RURAL LAND USE POLICY FOR FIJI

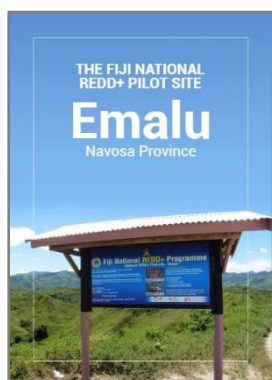
Land Use is a dynamic process, changing over time because of a number of factors, including increasing population, income changes, technologies, the general structure of the overall economy and political policies. Fiji, like most developing countries, is facing the crucial issue of proper allocation and sustainable uses of its land and water resources.

The endorsed National Rural Land Use Policy provides guidelines for the allocation and management of resources in the rural sector.

Prepared by: Mr David Leslie and Mr Inoke Ratukalou

2009

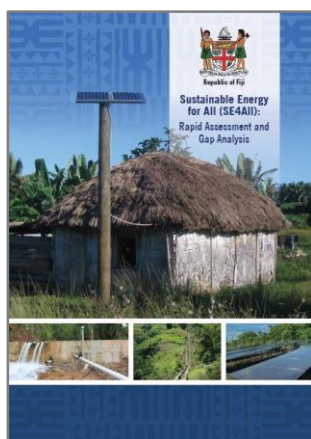
Reports and Assessments



THE FIJI NATIONAL REDD+ PILOT SITE – EMALU (NAVOSA PROVINCE)

Emalu forest was selected as a pilot site for the National REDD+ programme in 2012. The pilot site is located South West of Viti Levu, the largest island in Fiji. The land has an area of 7,347Ha covered predominantly by pristine forest. This booklet contains information on the surveys and activities that have been carried out in the pilot site since its establishment.

2015

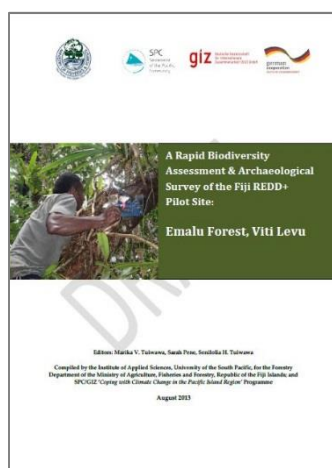


THE SUSTAINABLE ENERGY FOR ALL (SE4ALL): RAPID ASSESSMENT AND GAP ANALYSIS REPORT

The SE4All: Rapid Assessment and Gap Analysis report lays out Fiji's targets and requirements for achieving sustainable energy for all Fijians. It presents a comprehensive analysis of the overall energy situation in Fiji and subsequently identified the key gaps and support needed for achieving the three intertwined objectives of SE4All: i. ensure universal access to modern energy services; ii. double the global rate of improvements in energy efficiency; iii. double the share of renewable energy in the global energy mix.

Prepared by: the National Energy Policy Review Advisory Committee, chaired by the Department of Energy, with the assistance of Economic Consulting Associates Limited and SMEC; supported by the SPC/GIZ (CCCPIR) programme, and by the UNDP Pacific Centre.

2014



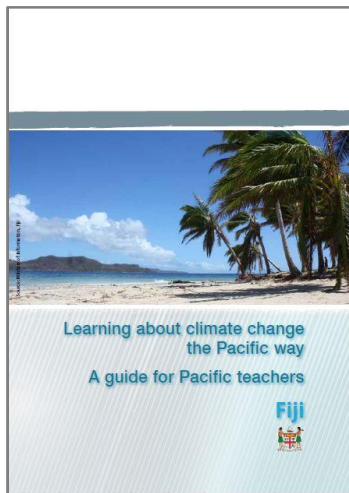
A RAPID BIODIVERSITY ASSESSMENT & ARCHAEOLOGICAL SURVEY OF THE FIJI REDD+ PILOT SITE: EMALU FOREST, VITI LEVU

The land encompassed by the mataqali Emalu in the province of Navosa has been selected as the pilot site for the Fiji REDD+ programme. A survey to assess the biodiversity of the area and document its cultural heritage sites was carried out by a team of specialists from USP's Institute of Applied Science (the South Pacific Regional Herbarium and the Environment Unit), the Fiji Museum, NatureFiji-MareqetiViti and Conservation International. The expedition was implemented in two phases; in July 2012 and March 2013.

Editors: Marika V. Tuiwawa, Sarah Pene, Senilolia H. Tuiwawa
Compiled by the Institute of Applied Sciences, University of the South Pacific, for the Forestry Department of the Ministry of Agriculture, Fisheries and Forestry, Republic of the Fiji Islands; and SPC/GIZ 'Coping with Climate Change in the Pacific Island Region' Programme.

August 2013

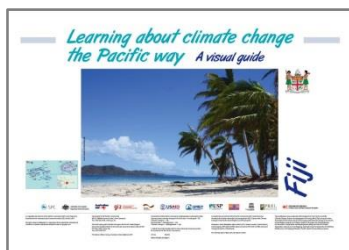
Education Resources



LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, FIJI AND A GUIDE FOR PACIFIC TEACHERS, FIJI

Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.

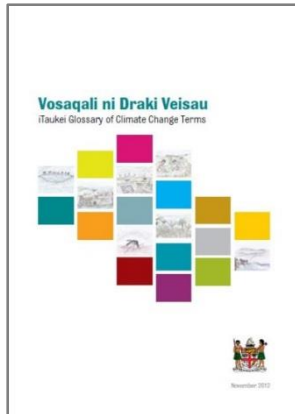
Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.



2013

Awareness Materials

Glossary



iTAUKEI GLOSSARY OF CLIMATE CHANGE TERMS

This climate change glossary in the Fijian language aims to assist in bringing about more accurate translation and use of climate change terms and words in the vernacular. The glossary was put together by a wide range of stakeholders which included linguists, scientists, educators and field practitioners. The glossary was endorsed by Fiji Cabinet and launched in November 2012.

Prepared by: the Ministry for iTaukei Affairs; supported by the SPC/GIZ CCCPIR programme

November 2012

Newsletters



FIJI CLIMATE CHANGE NEWSLETTER

Since 2012, the Fiji Climate Change Division – within the Ministry of Foreign Affairs and International Cooperation – is publishing a Climate Change newsletter on a quarterly basis. The latest issue dates September 2015 (issue 11)

2012 -

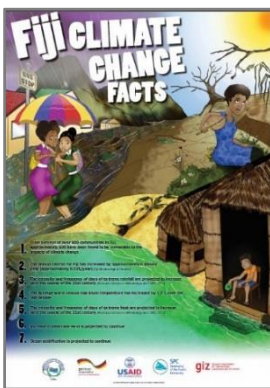
Posters and Banners



PRINCIPLES GUIDING THE IMPLEMENTATION OF FIJI'S NATIONAL CLIMATE CHANGE POLICY

This banner is highlighting the 12 principles that are guiding the implementation of the Fiji National Climate Change Policy.

2015

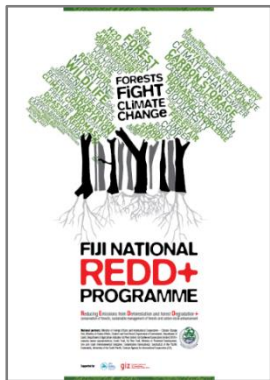


FIJI CLIMATE CHANGE FACTS

An awareness poster on climate change facts in Fiji.

2014

Available in: English and Vosa Vaka Viti

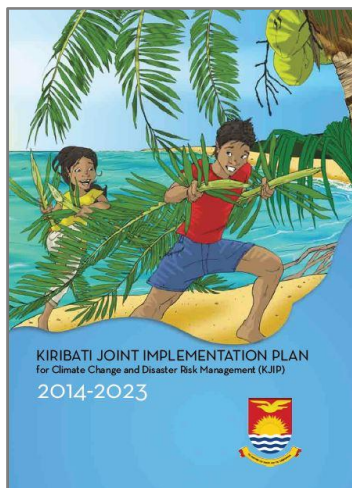


FIJI NATIONAL REDD+ PROGRAMME

A poster on the Fiji National REDD+ Programme

2012

Policies



KIRIBATI JOINT IMPLEMENTATION PLAN FOR CLIMATE CHANGE AND DISASTER RISK MANAGEMENT (KJIP)

The Kiribati Joint Implementation Plan on Climate Change and Disaster Risk Management (KJIP) has been developed to reduce the vulnerabilities to the impacts of climate change and disaster risks and to coordinate priorities so that every single dollar spent will derive maximum value. This plan is consistent with the regional and international frameworks on climate change and disaster risk management that the Government of the Republic of Kiribati has ratified.

2014

Studies and Assessments

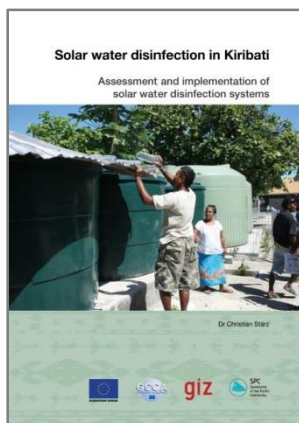
Abaiang Island, Kiribati - A Whole-of-Island Integrated Vulnerability Assessment

A joint assessment conducted in partnership between the Government of Kiribati, its Kiribati National Expert Group (KNEG), the Secretariat of the Pacific Community (SPC), the Secretariat of the Pacific Regional Environment Programme (SPREP) and the SPC/Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

ABAIANG ISLAND, KIRIBATI - A WHOLE-OF-ISLAND INTEGRATED VULNERABILITY ASSESSMENT (FINAL DRAFT AS OF AUGUST 2015)

A joint assessment conducted in partnership between the Government of Kiribati, its Kiribati National Expert Group (KNEG), the Secretariat of the Pacific Community (SPC), the Secretariat of the Pacific Regional Environment Programme (SPREP) and the SPC/Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

2015

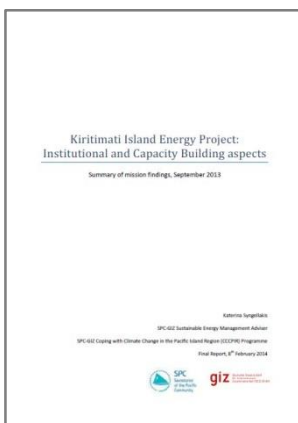


SOLAR WATER DISINFECTION IN KIRIBATI – ASSESSMENT AND IMPLEMENTATION OF SOLAR WATER DISINFECTION SYSTEMS

Solar water disinfection (SODIS) is an effective, environmentally sustainable, low-cost solution for drinking water treatment at household level for people consuming water that is microbiologically contaminated. The process of SODIS uses solar energy to destroy pathogenic micro-organisms that cause water-borne diseases, thereby improving the quality and safety of drinking water. The overall objective of the study in Kiribati was to reduce the incidence of water-borne diseases such as diarrhoea. The research consisted of testing, evaluating and optimising the implementation of a sustainable technique for purification of drinking water using solar energy.

Prepared by: Dr Christian Staerz (SPC/GIZ CCCPIR)

2015

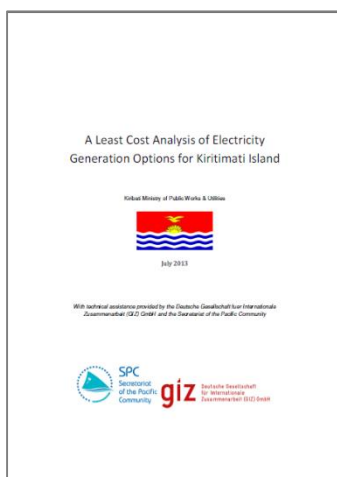


KIRITIMATI ISLAND ENERGY PROJECT: INSTITUTIONAL AND CAPACITY BUILDING ASPECTS

This report summarises findings in the Kiritimati Island energy sector, covering mainly institutional aspects of the energy sector and providing recommendations for an energy project design beyond the scope of purely technical design recommendations.

Prepared by: Ms Katerina Syngellakis (Energy Adviser, GIZ)

2014



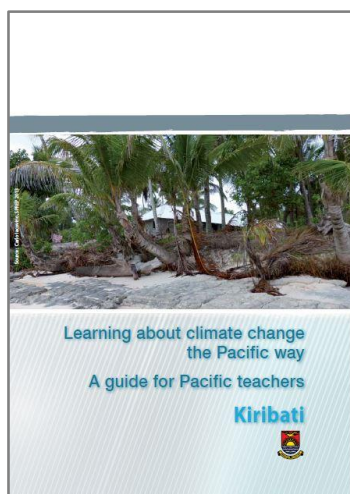
A LEAST COST ANALYSIS OF ELECTRICITY GENERATION OPTIONS FOR KIRITIMATI ISLAND

A training workshop on Cost-Benefit Analysis (CBA) for decision-makers, economists and project managers in relation to climate change was conducted at the Kiribati Institute of Technology in January 2013 with support from SPC, SPREP and GIZ. An objective of the training workshop was to develop work plans for proposed CBAs to assist with real decisions to be taken in the area of climate change adaptation and mitigation. The planned CBAs would then be undertaken by Kiribati government departments with external assistance where requested. At the end of the workshop, participants from the Energy Planning Unit (EPU) of the Ministry of Public Works and Utilities presented a draft work plan for a CBA of electricity supply options for Kiritimati Island.

Supported by: GIZ and SPC

July 2013

Education Resources

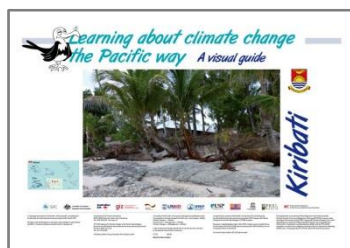


LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, KIRIBATI AND A GUIDE FOR PACIFIC TEACHERS, KIRIBATI

Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.

Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.

2013



Awareness Materials

Booklets



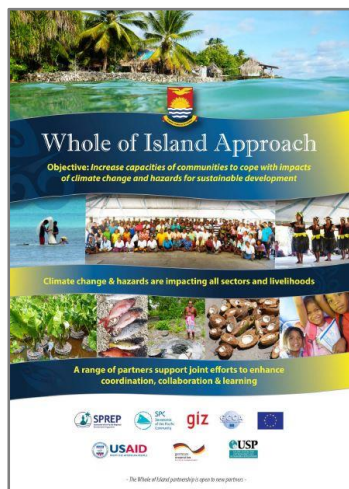
THE CHILDREN TAKE ACTION: A CLIMATE CHANGE STORY

This pictorial booklet is being used by the Curriculum Development and Resource Centre in Kiribati to improve literacy skills in te-Kiribati and English. It also helps children to learn the basics of climate change and its impacts on the environment in a very simplified way.

The story was developed by SPREP and funded by the Australian Government. The translation into te-Kiribati and printing costs have been supported by SPC/GIZ CCCPIR.

December 2012

Brochures

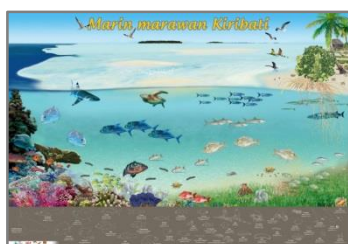


WHOLE OF ISLAND APPROACH

In 2011, the Government of Kiribati requested new regional climate change programmes to support communities on outer islands in adapting to climate change and to strengthen the islands' response capacities to man-made and natural hazards with a holistic and integrated approach. Instead of only focusing on only selected villages or single sectors, the 'Whole-of-Island' approach targets the whole island ecosystem, communities and governance structures whilst also considering its relationships with the national government and partners.

2015

Posters



MAMMALS IN KIRIBATI OCEANS

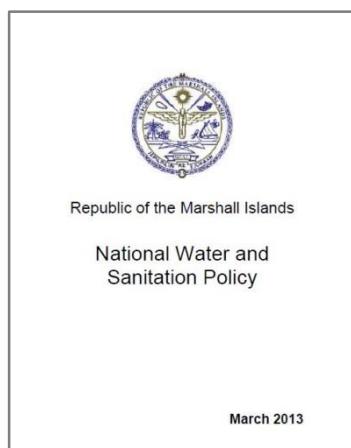
This poster shows mammals and other marine species in the oceans around Kiribati. It was developed for primary schools with the Kiribati Ministry of Education and SPC FAME. Te-Kiribati names were researched with help of local fisheries experts from the Ministry of Fisheries and Marine Resources Development. The better students know their environment, the easier they understand effects of climate change on marine species at a later stage.

2013

Available in: English and Te-Kiribati



Policies & Reports



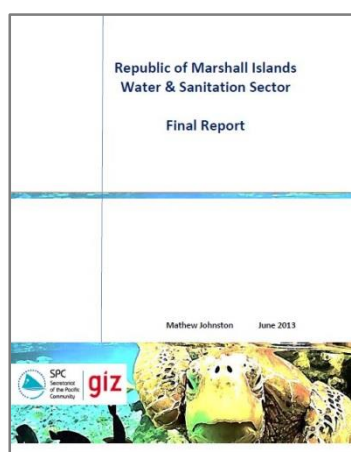
NATIONAL WATER AND SANITATION POLICY [FINAL DRAFT]

On 22 and 23 March 2011, a National Water Summit convened in Majuro highlighted the key sector issues and confirmed the urgency of water and sanitation improvement. In particular it was agreed that while there are a number of official policies, laws, regulations, plans and agreements that articulate RMI's intentions and standards with respect to water and sanitation, they have been developed over several decades in a relatively uncoordinated fashion. Many significant gaps still exist and there is a lack of a specific and overarching national water policy.

Both urban and rural water and sanitation need to be addressed by government policy and programs, including integrated water resource management, water supply, excreta disposal, wastewater, solid waste, storm water drainage and hygienic practices. Effective targeting of improvements is particularly important, both for equity reasons and because the bulk of the disease burden and costs of inadequate provision are carried by the poorest, most vulnerable and most disadvantaged individuals.

In summary, this National Water and Sanitation Policy is urgently required in RMI to direct investment in the sector, improve water and sanitation services, and sustainably manage the limited fresh water resources.

2013



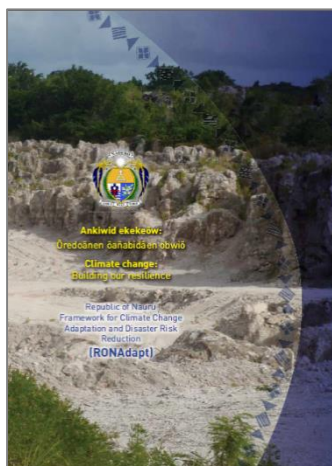
WATER AND SANITATION SECTOR REPORT

The country's main strategic development document, Vision 2018, sets out water as one of its key priorities and the Draft National Water Policy, appendix 1, is currently being developed to set out guidelines for the water and sanitation sector moving forward. Water is also integrated into both the Climate Change Policy and the Disaster Risk Management Policy and subsequently into the Draft Joint National Action Plan for Climate Change and Disaster Risk Management.

Author: Mathew Johnston

June 2013

Policies & Reports

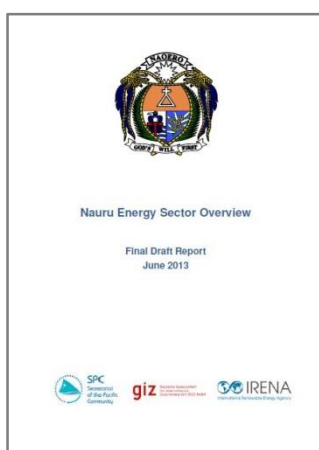


REPUBLIC OF NAURU – FRAMEWORK FOR CLIMATE CHANGE ADAPTATION AND DISASTER RISK REDUCTION (RONADAPT)

This document – the Republic of Nauru Framework for Climate Change Adaptation and Disaster Risk Reduction (RONAdapt) – represents the Government of Nauru’s response to the risks to sustainable development posed by climate change and disasters. It aims to do two things. First, it identifies immediate priorities relating to climate change adaptation (CCA) and disaster risk reduction (DRR), in order to clearly articulate these for all government ministries, state owned enterprises, the private sector, civil society, communities and development partners to engage with. These priorities are described in Section 4. Second, it provides a general framework for longer term planning and programming of CCA and DRR activities, including guidance on their mainstreaming in national and sectoral development policies. This includes setting out the key principles that are expected to guide CCA and DRR planning in Nauru (Section 2), as well as clarity on the roles and responsibilities of different stakeholders (Section 5).

Supported by: EU through the Global Climate Change Alliance: Pacific Island States project implemented regionally by SPC and nationally by the Government of the Republic of Nauru

2015

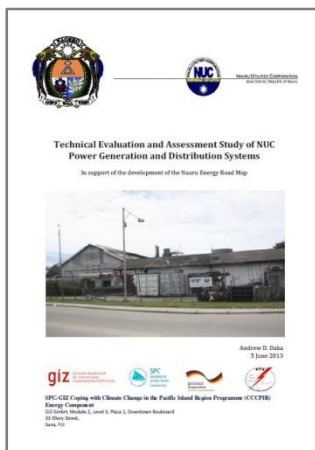


NAURU ENERGY SECTOR OVERVIEW [FINAL DRAFT]

This report aims to provide a stock take of the current situation in the energy sector of Nauru and therefore informs a baseline which can subsequently be used in the development of the Nauru Energy Road Map.

Prepared by Dr. Herb Wade (The International Renewable Energy Agency (IRENA) and GIZ Energy Road Map Consultant) and Katerina Syngellakis (SPC/GIZ CCCPIR), supported by Apisake Soakai (IRENA Pacific Coordinator) on the request of the Government of Nauru.

June 2013



TECHNICAL EVALUATION AND ASSESSMENT STUDY OF NUC POWER GENERATION AND DISTRIBUTION SYSTEMS

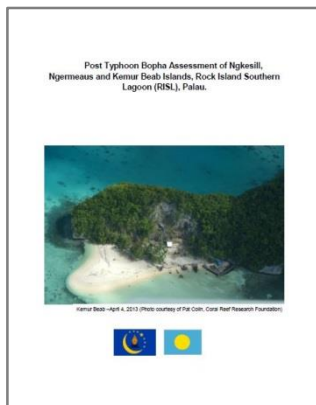
The Government of the Republic of Nauru with support from GIZ and IRENA are in the process of developing an Energy Road Map for the country. An important stakeholder in the development and the implementation of the Energy Road Map is the Nauru Utilities Corporation (NUC), the government owned electricity, water and fuel entity. Following a request from the NUC through the GIZ office in Suva, the Pacific Power Association (PPA) offered to partner with GIZ to assist NUC in carrying out an evaluation of its operations in the power sector.

Prepared by: Andrew D. Daka (PPA)

June 2013



Reports & Analyses

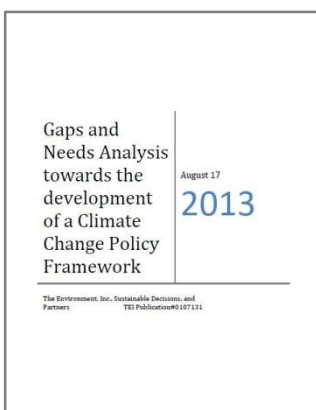


POST TYPHOON BOPHA ASSESSMENT OF NGKESILL, NGERMEUAS AND KEMUR BEAB ISLANDS, ROCK ISLAND SOUTHERN LAGOON (RISL), PALAU

The Koror State Government has raised some concerns about erosion on a number of Rock Island beaches. Due to the lack of data and baseline information it has been difficult to implement effective and appropriate adaptation measures. A scientific study was initially compiled to address the issue but due to Typhoon Bopha, it was not deemed applicable. Thus, this study outlines the results of stakeholder consultations and assesses several Rock islands to put forth recommendation for science based studies that would address erosion and in turn help managers develop effective responses to erosion.

Prepared by: David Idip Jr. under the auspices of the SPC/GIZ CCCPIR programme in collaboration with the Office of Environmental Response and Coordination and the Palau Automated Land And Resources Information System Office.

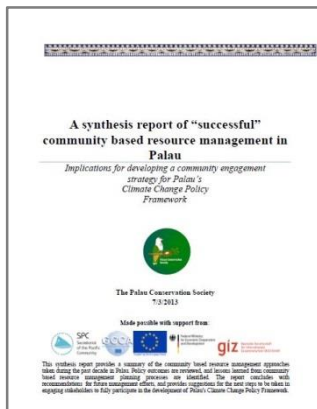
September 2013



GAPS AND NEEDS ANALYSIS TOWARDS THE DEVELOPMENT OF A CLIMATE CHANGE POLICY FRAMEWORK

In order to develop the Climate Change Policy Framework, several gaps need to be filled that are closely aligned with six internationally proposed sustainable development goals: thriving lives and livelihoods, food security, water security, clean energy, healthy ecosystems and good governances. Based on this analysis the following gaps need to be addressed, e.g. climate change is mainstreamed into all sectors, institutional capacity is built, and the 2002 National Implementation Strategy for Climate Change and the 2010 National Disaster Risk Management Framework are fully implemented.

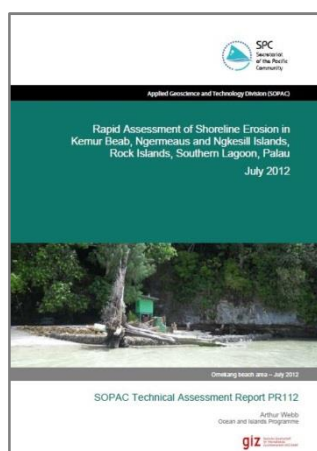
August 2013



A SYNTHESIS REPORT OF “SUCCESSFUL” COMMUNITY BASED RESOURCE MANAGEMENT IN PALAU

This synthesis report provides a summary of the community-based resource management approaches taken during the past decade in Palau. Policy outcomes are reviewed, and lessons learned from community-based resource management planning processes are identified. The report concludes with recommendations for future management efforts, and provides suggestions for the next steps to be taken in engaging stakeholders to fully participate in the development of Palau's Climate Change Policy Framework.

March 2013



RAPID ASSESSMENT OF SHORELINE EROSION IN KEMUR BEAB, NGERMEAUS AND NGKESILL ISLANDS, ROCK ISLANDS, SOUTHERN LAGOON, PALAU

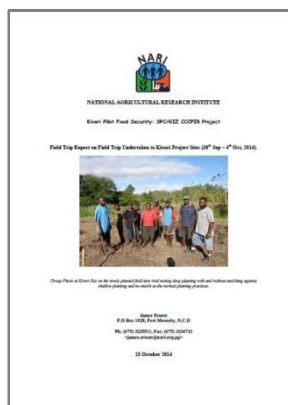
Shoreline erosion has occurred in several important recreational and tourist beach areas in the Rock Islands Southern Lagoon, Palau. Koror State Government as well as the National Government have expressed concern over the instability of these beach areas given their importance as day visits for large numbers of tourists who visit the Rock Islands each year. Tourism and particularly beach and water activities in the Rock Islands are a major attraction and source of revenue to Palau and thus there is significant urgency to address the shoreline instability issues in those key tourist beach areas. This assessment intends to assist to set priorities and recommendations to address shore erosion.

Prepared by: Arthur Webb (SPC-SOPAC) under the auspices of the SPC/GIZ CCCPIR programme in collaboration with the Koror State Government.

July 2012



Reports & Analyses

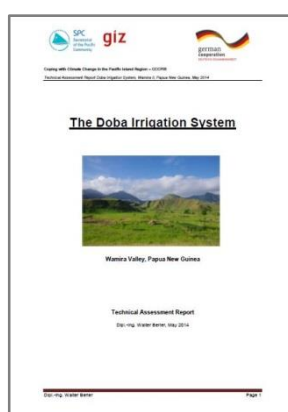


CCCPIR KIVORI PILOT FOOD SECURITY PROJECT – FIELD TRIP REPORT

This brief field trip report is based on the Kivori Trip which was undertaken from 30th September to 4th October 2014 by NARI staff, James Ernest, Abel Giblin, Gabriel Ure, and Theresa Paru. The trip purpose was 1) To set-up and establish a Taro planting depths and mulching experiment (trial) at Kivori Kui. 2) To conduct hands-on training on Food processing / preservation (making fruit jams and banana chips at Kivori Poe; 3) To check on physical status of the Resource Centre (Multiplication gardens) for the 3 communities and to note any issues regarding the project work there.

Prepared by: James Ernest

October 2014



THE DOBA IRRIGATION SYSTEM, WAMIRA VALLEY – TECHNICAL ASSESSMENT REPORT

This technical assessment report is based on a field visit to Wamira II, Milne Bay Province, Papua New Guinea from 8th to 10th of May 2014. This report focuses on the technical feasibility and availability of material and equipment, possible designs and bill of quantities. Additional focus should be given to objectives such as Environment Impact Assessment (approval procedure with PNG EPA or other national authorities), possible community approaches and the cost beneficiary ratio.

Prepared by: Mr Walter Berier (SPC/GIZ water engineer)

May 2014

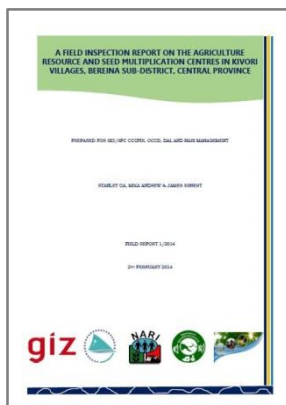


A DRAFT VULNERABILITY ASSESSMENT METHODOLOGY

This document describes a rapid rural appraisal and vulnerability assessment method for Kiriwina Island in order to determine vulnerability of village communities to impacts and risks induced by climate change and climate variability.

Prepared by: Mr Stanley Oa for the SPC/GIZ CCCPIR programme

April 2014

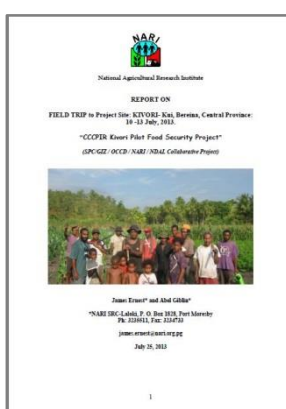


A FIELD INSPECTION REPORT ON THE AGRICULTURE RESOURCE AND SEED MULTIPLICATION CENTRES IN KIVORI VILLAGES, BEREINA SUB-DISTRICT, CENTRAL PROVINCE – FIELD TRIP REPORT

The purpose of this trip was to find out the status of the Resource and Seed Multiplication Centres through visual observations and have audience with the Kivori PACC/CCCPIR Committee members on the issues that were confronting them and determine solutions or the next course of action/s to take.

Prepared by: Stanley Oa, Mika Andrew, and James Ernest

January 2014



CCCPIR KIVORI PILOT FOOD SECURITY PROJECT – FIELD TRIP REPORT #6

This brief field trip report is based on the Kivori Trip # 6 which was undertaken from 10th to 13th July 2013 by NARI staff, James Ernest, Abel Giblin, and Gabriel Ure. The trip purpose was 1) To check the status of the garden at Kivori Kui site and supply some more peanut seeds and yellow seed corn; and 2) To visit Kivori Poe and Hereparu to re-assure them that a tractor has been identified to plough their sites.

Prepared by: James Ernest and Abel Giblin

July 2013

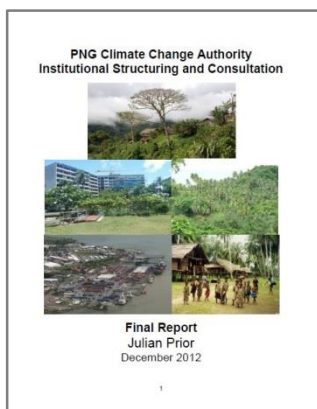


CCCPIR KIVORI PILOT FOOD SECURITY PROJECT – FIELD TRIP REPORT #5

This brief field trip report is based on the Kivori Trip # 5 which was undertaken from 26th February to 2nd March 2012 by NARI staff, James Ernest, Abel Giblin, Gabriel Ure and Loncy Gerari. The trip purpose was 1) To replant the crops which have failed to survive and to do new plantings; 2) To supervise the erecting of wire fence around the project's main garden and to supply additional gardening tools.

Prepared by: James Ernest and Abel Giblin

March 2013

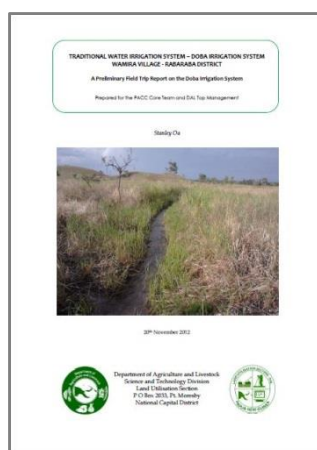


PNG CLIMATE CHANGE AUTHORITY INSTITUTIONAL STRUCTURING AND CONSULTATION

The Office of Climate Change and Development (OCCD) – responsible for the climate change policy area – is currently constituted as an „Office“ within the Department of Environment and Conservation. It is proposed that the OCCD will be restructured into an independent Authority, the PNG Climate Change Authority, to be established under the Ministry of Climate Change and Forests. This report provides details on the restructuring process.

Prepared by: Mr Julian Prior (supported by SPC/GIZ CCCPIR)

December 2012

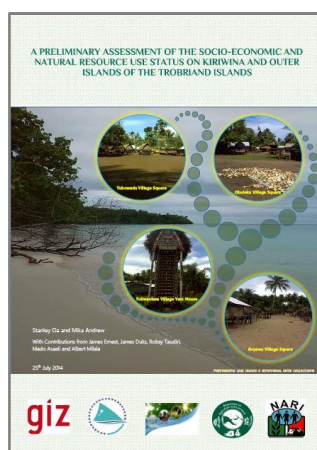


TRADITIONAL WATER IRRIGATION SYSTEM – DOBA IRRIGATION SYSTEM WAMIRA VILLAGE – RABARABA DISTRICT

This preliminary field trip report provides detailed information on the Doba irrigation system in the Wamira area.

Prepared by: Stanley Oa for the Pacific Adaptation to Climate Change and SPC/GIZ CCCPIR programmes.

November 2012

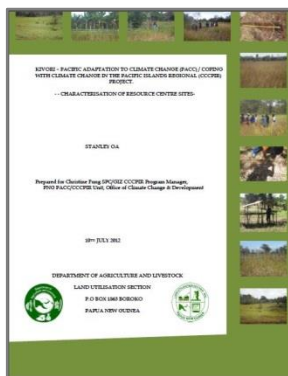


A PRELIMINARY ASSESSMENT OF THE SOCIO-ECONOMIC AND NATURAL RESOURCE USE STATUS ON KIRIWINA AND OUTER ISLANDS OF THE TROBRIAND ISLANDS

This study provides detailed information on the current on-the ground situation as baseline data and assesses if the village communities are affected by impacts of climate change. Furthermore, it determines if the sampled villages located in selected geographical locations are most exposed communities to climate change impacts. The study also provides guidance in order to develop a plan on what needs to be done in light of the information contained herein.

Prepared by: Stanley Oa and Mika Andrew for GIZ/SPC CCCPIR Regional Program Managers, concerned stakeholders of the national, provincial and local level governments of Papua New Guinea; with contributions from James Ernest, James Duks, Robsy Taudiri, Mado Asaeli and Albert Milala.

July 2012



KIVORI – PACIFIC ADAPTATION TO CLIMATE CHANGE (PACC) / COPING WITH CLIMATE CHANGE IN THE PACIFIC ISLAND REGION (CCCPIR) PROJECTS – CHARACTERISATION OF RESOURCE CENTRE SITES

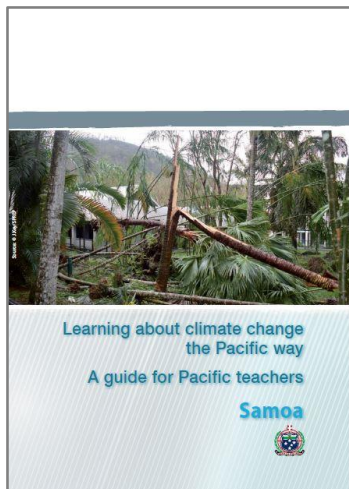
This report describes the physical characteristics of the proposed ‘resource centres’ at the PACC/CCCPIR demonstration project site (the three villages of Kivori) visited between 4-6th July 2012 by a team comprising officers from the National Agricultural Research Institute, the National Agriculture & Livestock’s Land Use Section and the PACC/CCCPIR PNG Office. The purposes of the establishment of the resource centres are reported elsewhere but basically the idea of this strategic concept is for the ‘resource centres’ to be the centres for the multiplication planting material (both local and introduced) for their eventual distribution to farmers. The other objective of the resource centres are to act as venues for the conduct of training of farmers on the various aspects of crop husbandry practices.

Prepared by: Stanley Oa for SPC/GIZ CCCPIR

July 2012



Education Resources

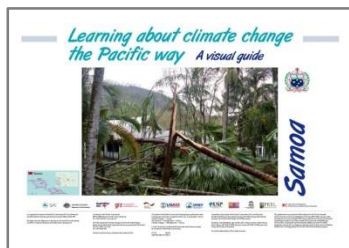


LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, SAMOA AND A GUIDE FOR PACIFIC TEACHERS, SAMOA

Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.

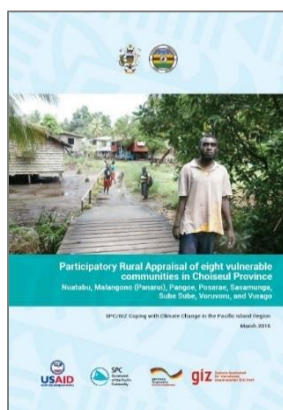
Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.

2013





Reports and Assessments

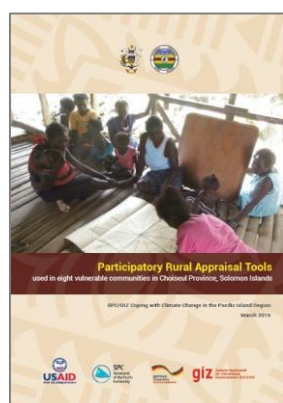


PARTICIPATORY RURAL APPRAISAL OF EIGHT VULNERABLE COMMUNITIES IN CHOISEUL PROVINCE – NUATABU, MALANGONO (PANARUI), PANGOE, POSARAE, SASAMUNGA, SUBE SUBE, VORUVORU, AND VURAGO

This participatory rural appraisal (PRA) has been undertaken in eight communities in Choiseul in order to further strengthen the findings of the vulnerability and adaptation assessment conducted in 27 communities in Choiseul in 2012.

Prepared by: Aliti Vunisea on behalf of the SPC/GIZ CCCPIR programme

March 2015

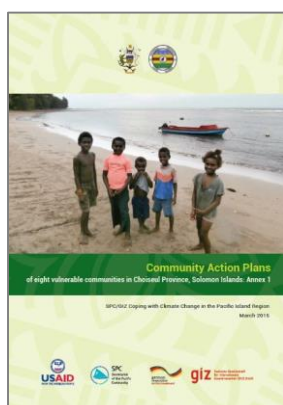


PARTICIPATORY RURAL APPRAISAL TOOLS [USED IN EIGHT VULNERABLE COMMUNITIES IN CHOISEUL PROVINCE, SOLOMON ISLANDS]

This report provides practitioners and project implementers from non-government organisations and other environmental and development organisations with a 'template' of possible good adaptation projects that they could adapt and improve upon for their own countries. The PRA tools described in this report were utilised during an extensive PRA exercise of the eight communities in Choiseul (Nuatabu, Malangono, (Paranui), Pangoe, Posarae, Sasamunga, Sube Sube, Voruvoru, and Vurago).

Prepared by: Aliti Vunisea on behalf of the SPC/GIZ CCCPIR programme

March 2015



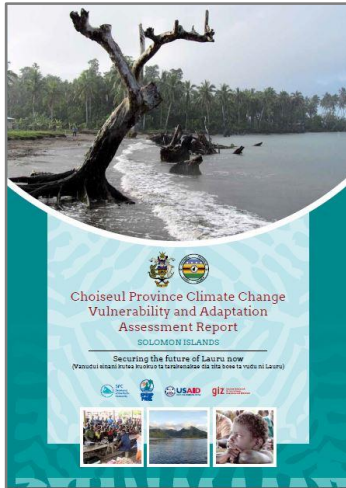
ANNEX 1: COMMUNITY ACTION PLANS [OF EIGHT COMMUNITIES IN CHOISEUL PROVINCE, SOLOMON ISLANDS]

This ANNEX presents the Community Action Plans for the Choiseul Province villages of Nuatabu, Malangono, (Paranui), Pangoe, Posarae, Sasamunga, Sube Sube, Voruvoru, and Vurago. These were developed through participatory rural appraisals held over May and June 2014.

The adaptation actions outlined in the plans are a result of comprehensive consultations and planning undertaken with the local villagers. The list of actions provides a basis for implementing climate change adaptation actions that are relevant for the local communities. The plans also serve to support coordinated and collaborative efforts with other partners working in the area of climate change.

Prepared by: Aliti Vunisea on behalf of the SPC/GIZ CCCPIR programme

March 2015



CHOISEUL PROVINCE CLIMATE CHANGE VULNERABILITY AND ADAPTATION ASSESSMENT REPORT

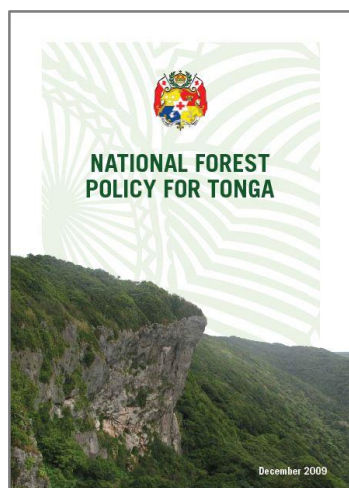
Assessing people's vulnerability and adaptation to climate change is complex. There are a number of inter-related factors that affect people's vulnerability, sensitivity and capacity to adapt to the impacts of climate change. Therefore, understanding how communities interact with multiple social, cultural, political, economic and environmental factors is paramount to understanding how they are vulnerable and able to adapt to these impacts.

Consequently, this study focuses on the community as the central point of measuring vulnerability to climate change in Choiseul province, and this report is primarily based on information gathered through a series of facilitated workshops, observations and recorded data in 27 communities throughout the province.

Prepared by: Melchior Mataki, Gideon Solo, Paul Donohoe, Davis Alele, Lisa Sikajajaka

2012

Policies



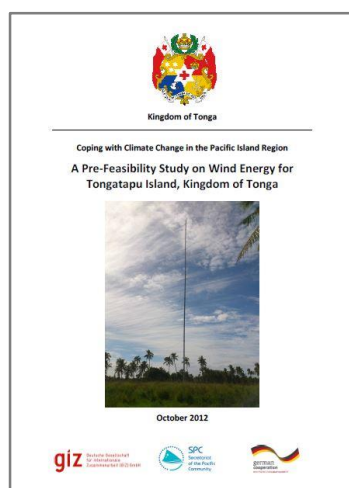
NATIONAL FOREST POLICY FOR TONGA

The objective of this policy is to support the sustainable management of the Tonga's forests and tree resources. Whilst trees have high cultural and socio-economic significance in Tonga, forest areas are shrinking or degrading and trees on allotments are decreasing. There is an urgent need in Tonga to control the indiscriminate removal of forest stands and to restore tree stocks. The development of this forest policy is a significant step towards ensuring and strengthening the ecological, economical, and social role of trees and forests in Tonga.

This policy was developed as a collaborative venture between the Government of Tonga, forest sector stakeholders in Tonga, the Food and Agriculture Organization of the United Nations, GIZ, and SPC

December 2009

Reports and Assessments



A PRE-FEASIBILITY STUDY ON WIND ENERGY FOR TONGATAPU, KINGDOM OF TONGA

This wind pre-feasibility study is part of the support provided by CCCPIR to the Government of Tonga, through the Energy Division of the Ministry of Environment and Climate Change.

Prepared by: Kevin Palmer-Wilson in collaboration with Katerina Syngellakis (SPC/GIZ CCCPIR), William Thorp (SPC), and Ofa Sefana (Acting Energy Planning Specialist and his team in the Energy Division of the Ministry of Environment and Climate Change of the Government of Tonga.

October 2012



Quantitative Forest Change Detection of Eua, Kingdom of Tonga Between 1991 and 2005



Change detection conducted by Steven Temaric Hamani with help of Tiaotinear Enari (SPC-SOPAC) in November 2011 and June 2012 using historical aerial photographs recorded 1991 and very high resolution satellite image data recorded in 2005.

silverthai@gmail.com haman@sopac.org

QUANTITATIVE FOREST CHANGE DETECTION OF EUA BETWEEN 1991 AND 2005

This report describes the change detection of Eua Island in Tonga and it is mainly on woodland and broadleaved forest. This change detection is shows the alteration of forest cover from 1991 to 2005. It is based on aerial photographs recorded in 1991 and very high resolution satellite image data recorded in 2005. Both data interpretations were overlaid to visually and quantitatively analyse the changes in vegetation.

Prepared by: Steven Temaric Hamani and Tiaotinear Enari (SPC-SOPAC) on behalf of the SPC/GIZ CCCPIR programme

2012

Nakolo Socio-Economic Baseline Survey 2010

Summary of Findings

In order to provide socio-economic baseline data for the SPC/GTZ Pacific-German Regional Programme Adaptation to Climate Change in the Pacific Island Region a survey was undertaken in the Tongan pilot site of Nakolo from 22nd to 25th June 2010. During this survey 41 households of the total population of 77 households (Census 2000) were interviewed, thus 53% of the total population.

Altogether, the sample consisted of 278 people; 140 males and 138 females and on average the households interviewed are composed of 6.8 members per household, which is 1.1 more than in the 2000 Census (5.7 members per household). However, the number of household members varies between one and 19 (Appendix, Chart 2). In most households, two or three generations are living together and members are related along blood or married lines. With a median age of 22 years (21 in the 2000 Census) the population of Nakolo seems rather young. 31.2% of the sample are currently undergoing some form of education.

While most Nakolo (90%) have a concrete floor a roof made of metal sheets, there was more variation as regards materials used for external walls: 50% are made of wood, 28% of bricks and 10% of concrete. 36 of the households use electricity, gas and water; 10 use fuel and 38 mobile phones and/or a landline.

In contrast to the other Tongan pilot site of Tasi, where only one of the heads of household is female, in Nakolo almost 50% of heads of household are female. However, there is a clear divide between males and females as regards occupations; while about 20% of the males are involved in farming, in almost 47% of the cases the females' occupation is housework (Appendix, Chart 2).

84 children of heads of households have moved either somewhere else in Tonga (32%) or overseas (28% to NZ, 27% to the USA, 25% to Australia and 1% each to JP and Taiwan). Many of them, as well as other relatives, regularly send home cash remittances and food transfers. 34 households have received cash remittances during the last 12 months and without outliers the average amount of remittances sent per year per household is 153,600. Overall, remittances are the biggest source of cash income in Nakolo; they account for 40% of household income. For an overview of remittances by month and by country of origin, please refer to Chart 3 and Chart 4 in the appendix.

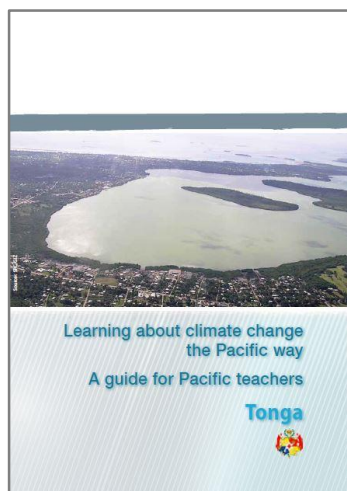
NAKOLO – SOCIO-ECONOMIC BASELINE SURVEY

In order to provide socio-economic baseline data for the SPC/GTZ Pacific-German Regional Programme Adaptation to Climate Change in the Pacific Island Region, a survey was undertaken in the Tongan pilot site of Nakolo from 22nd to 25th June 2010.

Prepared by: the SPC/GIZ CCCPIR programme

June 2010

Education Resources

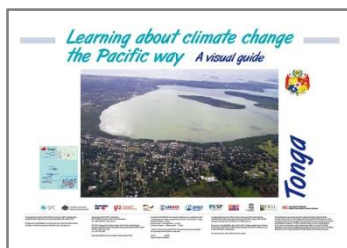


LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, TONGA AND A GUIDE FOR PACIFIC TEACHERS, TONGA

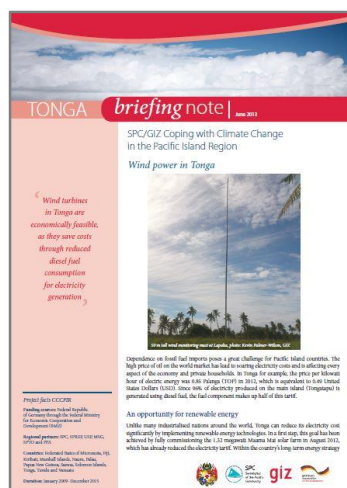
Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.

Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.

2013



Awareness Materials – factsheets



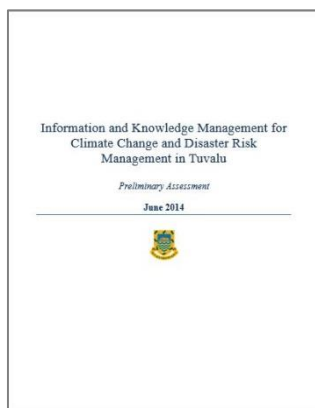
WIND POWER IN TONGA

A programme factsheet on the wind energy pre-feasibility study that has been undertaken in Tongatapu.

Prepared by: SPC/GIZ CCCPIR programme

June 2013

Reports and Assessments



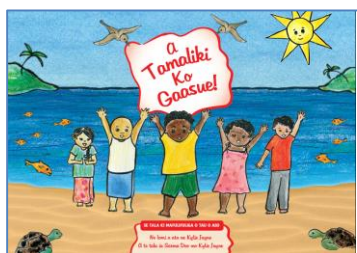
INFORMATION AND KNOWLEDGE MANAGEMENT FOR CLIMATE CHANGE AND DISASTER RISK MANAGEMENT IN TUVALU - PRELIMINARY ASSESSMENT

This report provides an overview of the current state of information and knowledge management systems in Tuvalu with a focus on climate change and disaster risk management. The report: briefly describes current policy and institutional arrangements for sharing information on climate change (CC) and disaster risk management (DRM) within Governmental departments and external stakeholders; examines key stakeholders and systems available to support information and knowledge management in Tuvalu; and identifies needs, gaps, and next steps to strengthen IKM in Tuvalu.

Supported by: the regional SPC/GIZ CCCPIR program, implemented on behalf of the Federal German Ministry for Economic Cooperation and Development (BMZ) and the SPC – Applied Geoscience and Technology Division.

June 2014

Education Resources



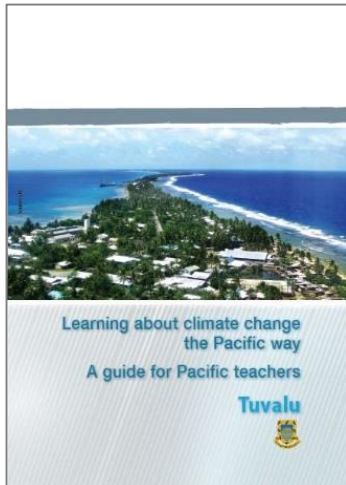
THE CHILDREN TAKE ACTION: A CLIMATE CHANGE STORY

This pictorial booklet helps children to learn the basics of climate change and its impacts on the environment in a very simplified way.

The story was developed by SPREP and funded by the Australian Government. The translation into Tuvaluan and printing costs have been supported by SPC/GIZ CCCPIR.

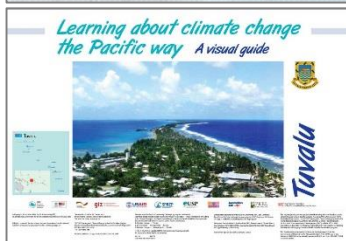
2015

LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, VANUATU AND A GUIDE FOR PACIFIC TEACHERS, TUVALU



Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.

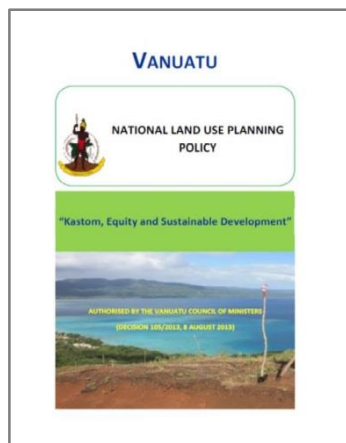
Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.



2015



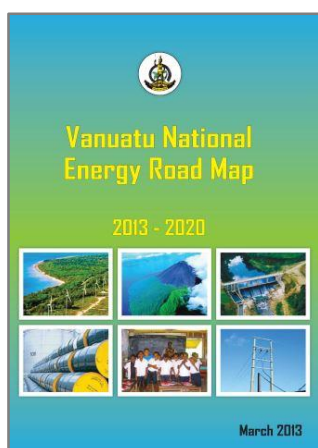
Policies and Plans



VANUATU LAND USE AND PLANNING POLICY

This policy guides land use planning by setting priorities and outlining legislative and institutional settings to enable land use planning that encourages the best current use of land resources and at the same time allowing for future generations equitably benefit from the same resources. The Policy can be regarded as a framework for land use planning, which is clearly emerging as a critical tool in our country's development. This land use planning policy covers land use planning from rural communities through to our urban centres with the intention of achieving benefits for all of the people of Vanuatu both now and into the future.

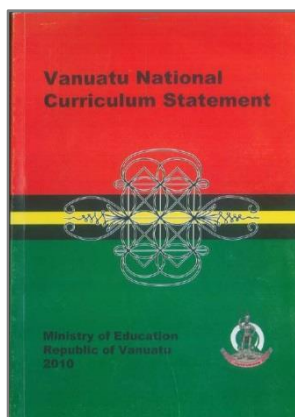
August 2013



VANUATU NATIONAL ENERGY ROAD MAP 2013 – 2020

This Road Map has been developed using a “whole-of-sector” approach, and provides a clear focus for all sector stakeholders to participate in energy sector progress.

March 2013

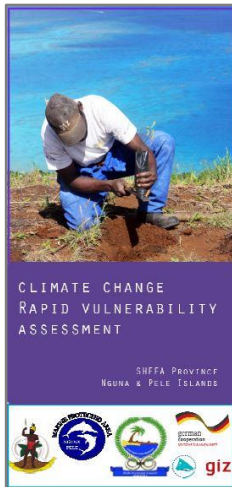


VANUATU NATIONAL CURRICULUM STATEMENT

Since the colonial era, Vanuatu had a dual education system: one for Francophone and one Anglophones. Thus, the purpose of the Vanuatu National Curriculum Statement is to harmonise languages and curriculum content. This curriculum statement is the first of its kind for Vanuatu and is the foundation, framework and pathway for curriculum developers and policy makers and provides direction for future curriculum changes and development.

May 2010

Assessments, Reports and Surveys



CLIMATE CHANGE RAPID VULNERABILITY ASSESSMENT – NGUNA AND PELE ISLAND

To assess the climate change vulnerability of Nguna and Pele islands, a quantitative survey was developed to appraise marine, coastal, forest, land, and community vulnerabilities.

2014



TA 7798-REG: Promoting Energy Efficiency in the Pacific (Phase 2)

Urban Household Appliance & Energy Use Survey:
Port Vila & Luganville, Vanuatu (2013)

Volume 1: Main Report
(Final Report: 20 March 2014)

Prepared for:
The Government of Vanuatu
Port Vila, Vanuatu
and
The Asian Development Bank
6 ADB Avenue, Mandaluyong City 1550
Mandaluyong, Philippines
by
International Institute for Energy Conservation - Asia
12th Floor, United Nations Center Building, 815, Southview Road
Victoria, Bangkok 10110, Thailand
In collaboration with, and with the support of:
Department of Energy & Meteorology
Ministry of Climate Change, Adaptation,
Meteorology, Geo-Hazards, Environment
and Energy, Government of Vanuatu
UNDP Pacific Centre
United Nations Development Programme,
Suva, Fiji
SPC-GIZ Coping with Climate Change in the Pacific
Pacific Islands Region Programme (CCPIR),
Energy Component, GIZ GmbH, Suva, Fiji
Vanuatu National Statistics Office
Government of Vanuatu

URBAN HOUSEHOLD APPLIANCE & ENERGY USE SURVEY: PORT VILA & LUGANVILLE, VANUATU [VOLUME 1 – MAIN REPORT]

This survey was undertaken in order to reduce data gaps regarding residential energy use in electrified urban households, and use the information to develop initiatives to assist households reduce electrical energy use without compromising the quality of services. After the survey field work was completed, results were used to develop energy efficient residential lighting projects for both urban centres.

Prepared by: International Institute for Energy Conservation – Asia in collaboration with the Departments of Energy & Meteorology Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment and Energy, Government of Vanuatu, the SPC/GIZ CCCPIR programme, and UNDP Pacific Centre

March 2014



TA 7798-REG: Promoting Energy Efficiency in the Pacific (Phase 2)

Urban Household Appliance and Energy Use
Survey: Port Vila & Luganville, Vanuatu (2013)

Volume 2: Training Materials
April 2013

Prepared for:
THE GOVERNMENT OF VANUATU
Port Vila, Vanuatu
and
THE ASIAN DEVELOPMENT BANK
6 ADB Avenue, Mandaluyong City 1550
Mandaluyong, Philippines
by
International Institute for Energy Conservation - Asia
12th Floor, United Nations Center Building, 815, Southview Road
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In collaboration with, and with the support of:
Department of Energy, Mines and Minerals,
Government of Vanuatu
UNDP Pacific Centre
United Nations Development Programme,
Suva, Fiji
Department of Meteorology and
Geohazards, Government of Vanuatu
Coping with Climate Change in the Pacific
Pacific Islands Region Programme
(SPC-GIZ CCCPIR), Energy Component
GIZ GmbH, Suva, Fiji

URBAN HOUSEHOLD APPLIANCE & ENERGY USE SURVEY: PORT VILA & LUGANVILLE, VANUATU [VOLUME 2 – TRAINING MATERIALS]

Volume 2 of the Vanuatu survey report consists of the following training materials, mainly in the form of PowerPoint® presentations.

Prepared by: International Institute for Energy Conservation – Asia in collaboration with the Department of Energy, Mines and Minerals & the Department of Meteorology and Geohazards (Government of Vanuatu), the SPC/GIZ CCCPIR programme, and UNDP Pacific Centre

March 2014

**Coping with Climate Change in the
Pacific Island Region (CCCPIR)**

Vanuatu

**Preliminary assessment of suitability of selected
government buildings for grid-connected solar
electricity**

Site Visits in Port Vila, 24th to 26th June 2013

Final Report

August 2013

Prepared by M. Birnbach and K. Syngellakis

SPC-GIZ CCCPIR



PRELIMINARY ASSESSMENT OF SUITABILITY OF SELECTED GOVERNMENT BUILDINGS FOR GRID-CONNECTED SOLAR ELECTRICITY

This report provides an overview of potential government-owned sites for PV solar systems in Port Vila, Vanuatu. This overview is based on visits to each site undertaken in June 2013. The visited sites were: the Department of Energy, Mines and Mineral Resources; the Parliament House; the Ministry of Finance; the Central Hospital; the Vanuatu Institute of Technology; the Public Library; and the Meteorology and Geo-Hazards building (Meteo).

These sites were selected as, for most, an energy audit had already previously taken place under the Asian Development Bank's Promoting Energy Efficiency in the Pacific Phase 2 project and therefore an assessment of solar energy options would complement the energy efficiency findings.

Prepared by: M. Birnbach and Katerina Syngellakis (SPC/GIZ CCCPIR)

August 2013

**SECRETARIAT OF THE PACIFIC COMMUNITY
GIZ**

**Coping with Climate Change in the
Pacific Island Region (CCCPIR)**

VANUATU

**Preliminary Assessment of Solar
Photovoltaics for the Meteo Building**

Final Report

December 2012

Prepared by K. Syngellakis

Sustainable Energy Management Advisor
SPC-GIZ CCCPIR



PRELIMINARY ASSESSMENT OF PHOTOVOLTAICS FOR THE METEO BUILDING

A solar PV system is considered to produce electricity independently of the main grid. In the case of Vanuatu, where the main grid is fuelled almost entirely by diesel, the solar PV system also reduces diesel use and carbon dioxide emissions (one of the greenhouse gases which cause climate change). A solar PV system could be incorporated into the building (on the roof) or placed on a ground-based structure on land belonging to the VMGD adjacent to the Meteo building. SPC/GIZ CCCPIR has prepared this preliminary assessment to provide an overview of the potential for and benefits from solar PV at the Meteo building.

Prepared by: Katerina Syngellakis (SPC/GIZ CCCPIR)

December 2012



TA 7798 - REG:
Promoting Energy Efficiency in the Pacific (Phase 2)

**WALK-THROUGH ENERGY AUDIT REPORT
VANUATU METEOROLOGICAL SERVICES OFFICE**

Final Report

Prepared for:

Asian Development Bank
5 ADB Avenue, Mandaluyong City 1550
Metro Manila, Philippines

by:

International Institute for Energy Conservation - Asia
12th Floor, United Business Center 1 Building, 591, Sukhumvit Road
Nongkhan, Bangkok 10110, THAILAND

In Collaboration with:

SPC-GIZ Coping with Climate Change in the Pacific Island Region Programme (CCCPIR)
Energy Component
GIZ Office, Module 2, Level 2, Phase 1, Convention Boulevard
32, BPO Office, Suva, Fiji

October 2012

WALK-THROUGH ENERGY AUDIT REPORT

This report provides the results of the preliminary, or walk-through, energy audit conducted on 19th July 2012 at the Vanuatu Meteorology and Geo-Hazards Department within the Ministry of Infrastructure and Public Utilities in Port Vila, Vanuatu.

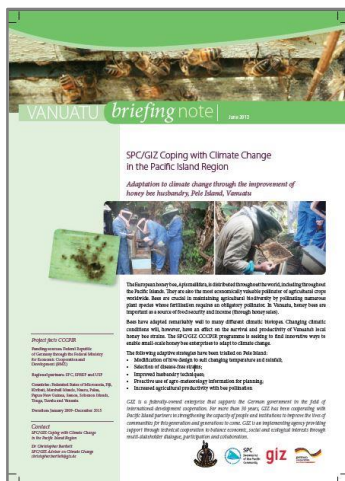
Prepared by: International Institute for Energy Conservation – Asia in collaboration with the SPC/GIZ CCCPIR programme

October 2012

Education Resources

	<p>CERTIFICATE I, LEVEL 1 TRAINING MODULE ON CLIMATE CHANGE AND DISASTER RISK REDUCTION (DRAFT AS OF JULY 2015)</p> <p>Training package for Vanuatu communities, developed for the Vanuatu Rural Development Training Centre Association (VRDTCA), consisting of 7 units of competency and suiting specific industry needs (as requested by the Industry Advisory Committee) to a Certificate I, Level 1 of the Vanuatu Qualifications Framework.</p> <p>Each of the seven units consists of a competency outline, a facilitator guide, a learner guide and a learner workbook</p> <p>2015</p> <p>Available in: English and French</p>
	<p>LEARNING ABOUT CLIMATE CHANGE THE PACIFIC WAY – A VISUAL GUIDE, VANUATU AND A GUIDE FOR PACIFIC TEACHERS, VANUATU</p> <p>Many educational resources available on climate change focus on its causes and its mitigation by reducing the emission of greenhouse gases. There are very few educational resources that address adaptation measures that are specific to Pacific islands. The focus of this resource is on the effects of changes in air and sea surface temperature, rainfall, sea-level rise and extreme weather events on island environments, economies and people. It is vital to enhance individual and community skills to adapt to these changes – in other words, to reduce risks and maximise potential benefits.</p> <p>Prepared by: Jipé Le-Bars, SPC; Hanna Sabass, SPC/GIZ CCCPIR; Carol Young, University of Auckland.</p> <p>2013</p> <p>Available in: English and French</p>

Awareness Materials – factsheets

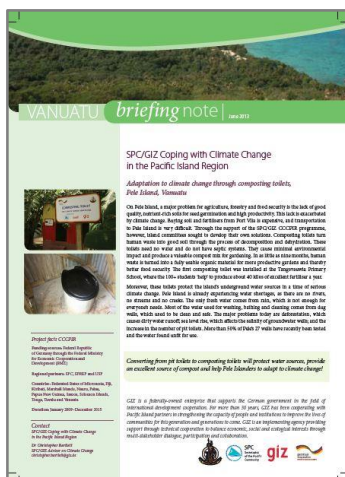


ADAPTATION TO CLIMATE CHANGE THROUGH THE IMPROVEMENT OF HONEY BEE HUSBANDRY, PELE ISLAND, VANUATU

In Vanuatu, honey bees are important as a source of food security and income (through honey sales). Bees have adapted remarkably well too many different climatic biotopes. Changing climatic conditions will, however, have an effect on the survival and productivity of Vanuatu's local honey bee strains. The SPC/GIZ CCCPIR programme is seeking to find innovative ways to enable small-scale honey bee enterprises to adapt to climate change.

Prepared by: SPC/GIZ CCCPIR programme

June 2013

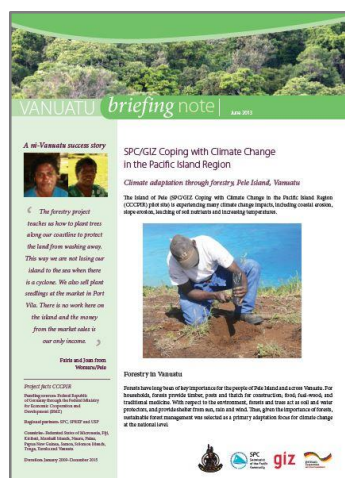


ADAPTATION TO CLIMATE CHANGE THROUGH COMPOSTING TOILETS, PELE ISLAND, VANUATU

On Pele Island, a major problem for agriculture, forestry and food security is the lack of good quality, nutrient-rich soils for seed germination and high productivity. This lack is exacerbated by climate change. Buying soil and fertilisers from Port Vila is expensive, and transportation to Pele Island is very difficult. Through the support of the SPC/GIZ CCCPIR programme, however, island committees sought to develop their own solutions. Composting toilets turn human waste into good soil through the process of decomposition and dehydration.

Prepared by: SPC/GIZ CCCPIR programme

June 2013

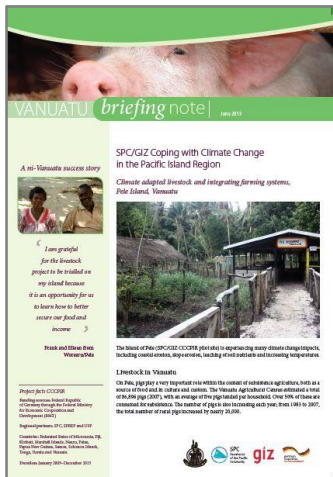


CLIMATE ADAPTATION THROUGH FORESTRY, PELE ISLAND, VANUATU

Vanuatu's Priority Action Agenda highlights the importance of forestry for economic development and environmental sustainability, and emphasises the need to 'Maintain and improve the regulatory and management framework for the sustainable development of the sector'. With SPC/GIZ CCCPIR support, Vanuatu was able to revise its National Forest Policy in 2011 to incorporate climate change considerations.

Prepared by: SPC/GIZ CCCPIR programme

June 2013



CLIMATE ADAPTED LIVESTOCK AND INTEGRATED FARMING SYSTEMS, PELE ISLAND, VANUATU

On Pele, pigs play a very important role within the context of subsistence agriculture, both as a source of food and in culture and custom. Climate change is negatively affecting pigs' health and growth rates. The SPC/GIZ CCCPIR programme is assisting the island's farmers to adapt to climate change effects by addressing pig productivity and animal welfare.

Prepared by: SPC/GIZ CCCPIR programme

June 2013

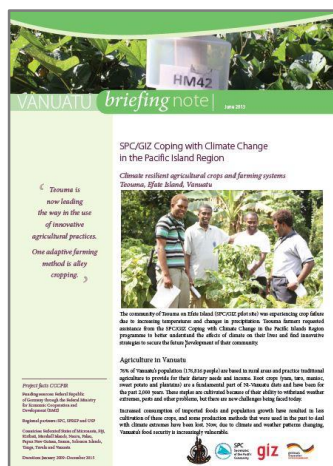


ENHANCED FOOD SECURITY AND ALTERNATIVE INCOME OPPORTUNITIES THROUGH SOLAR FRUIT DRYING, PELE ISLAND, VANUATU

In Vanuatu, very little value adding of products is undertaken. For example, when tomatoes are in season, the markets are flooded, prices drop and much produce is wasted. Only a few months later, no tomatoes can be found. Thus, the SPC/GIZ CCCPIR programme is assisting communities in developing ways to store and preserve these excess fruits for use during periods when little food is available. This is a critical climate adaptation strategy.

Prepared by: SPC/GIZ CCCPIR programme

June 2013



CLIMATE RESILIENT AGRICULTURAL CROPS AND FARMING SYSTEMS, TEOUMA, VANUATU

The community of Teouma on Efate Island (SPC/GIZ pilot site) was experiencing crop failure due to increasing temperatures and changes in precipitation. Teouma farmers requested assistance from the SPC/GIZ Coping with Climate Change in the Pacific Islands Region programme to better understand the effects of climate on their lives and find innovative strategies to secure the future development of their community.

Prepared by: SPC/GIZ CCCPIR programme

June 2013