

**AUDIT ON THE MANAGEMENT OF THE IMPACTS OF CLIMATE CHANGE ON
FOOD SECURITY IN THE FSM
(FISCAL YEAR 2010-2012)**

REPORT NO. 2014-01



Haser H. Hainrick
National Public Auditor



FEDERATED STATES OF MICRONESIA

Office of The National Public Auditor

P.O. Box PS-05, Palikir, Pohnpei FSM 96941

Tel: (691) 320-2862/2863; Fax: (691) 320-5482;

CID Hotline: (691) 320-6768; E-mail: hhainrick@fsmopa.fm

December 6, 2013

His Excellency Manny Mori, President
Honorable Members of the FSM Congress
Federated States of Micronesia

RE: Performance Audit on the Management of the Impacts of Climate Change on Food Security in the FSM

We have completed a *Performance Audit on the Management of the Impacts of Climate Change on Food Security in the FSM for Fiscal Year 2010 - 2012*. The audit was undertaken by the Office of the Public Auditor of the Federated States of Micronesia (FSM) as part of a cooperative audit initiative developed by the Pacific Association of Supreme Audit Institutions with the support of the Asian Development Bank, the INTOSAI Development Initiative and the Victorian Auditor General's Office. The audit was conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the Comptroller General of the United States.

The objective of the audit was to assess the effectiveness of the actions taken by key agency/agencies in developing and implementing strategic action plans to address the impacts of climate change on food security in the FSM.

There are two entities in the FSM National Government responsible for developing the overall action plans to address the impacts of climate change on food security. The Office of Environmental and Emergency Management (OEEM) is responsible for climate change policy, addressing climate change issues and providing technical assistance to the four states (Pohnpei, Chuuk, Yap & Kosrae) on any related climate change issues. The Department of Resources and Development is responsible for fisheries and agriculture and is responsible for addressing the nation's climate change issues in relation to the FSM's food security needs.

According to the reviews on the impacts of climate change in the FSM, the biggest threat to food security systems in the FSM is the projected impacts of climate change. As a small island developing country, the FSM is one of the most vulnerable countries in the world to the impacts of climate change.

Poor policy and planning by R&D and OEEM has led to minimal actions. What has been done has been uncoordinated and inefficient with no assessment of whether the action is achieving improved food security.

As a result of the audit, the audit team identified the following weaknesses:

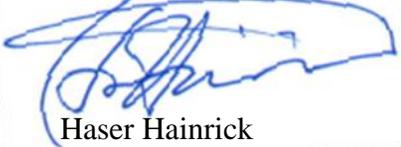
Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

- No Comprehensive Action Plan to Address the Impacts of Climate Change on Food Security
- Inadequate food security vulnerability assessment
- Inadequate food security policy (Agriculture policy)
- Duplication of efforts/overlapping activities between national and state as well as non-government organization (NGOs)

In addressing the weaknesses above, we have recommended the following:

- That both the FSM Department of R&D, in consultation with OEEM, to develop and implement a comprehensive Food Security Plan that complies with the food security policy and mainstreams the impact of climate change.
- That the OEEM and R&D should collaborate to work together to conduct a comprehensive food security and vulnerability assessment/analysis that should integrate the climate change impacts on food security covering not only the low lying atolls, but the high atolls (ridge to ridge) and all the food components such as agricultural products, fish and food importation as well.
- R&D should develop and implement a Food Security Policy to address the impact of Climate Change on food security. The policy should include the following: Climate Change Impact on Food Security; actions to address the vulnerabilities; responsibilities to coordinate actions to implement the policy and implement individual actions; and, mechanisms for managing national-state consultation and coordination.
- The designated person to coordinate and monitor climate change/food security related activities and should assess whether the efforts administered by the national, state, communities, agencies, NGOs overlap and recommend that the budget for those activities be put into more productive use. Furthermore, the National should coordinate well with the State and NGOs in terms of planning to avoid any overlapping activities and should record all projects/programs to readily identify and avoid repetitive and overlapping activities.

Respectfully yours,



Haser Hainrick
National Public Auditor

XC: Vice President
Secretary of Resource and Development
Director of Office of Emergency and Environmental Management

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Table of Contents

INTRODUCTION	1
Background	1
OBJECTIVE, SCOPE AND METHODOLOGY	4
PRIOR AUDIT COVERAGE	5
CONCLUSION	5
FINDINGS AND RECOMMENDATIONS	6
Finding #1: No Comprehensive Action Plan to Address the Impacts of Climate Change on Food Security.....	6
Finding #2: Inadequate Food Security Vulnerability Assessment	7
Finding #3: Inadequate Food Security Policy (Agriculture policy)	8
Finding #4: Duplication of Efforts/Overlapping Activities between National and State as well as Non-Government Organizations (NGOs).....	9
APPENDICES	11
Appendix A	11
Appendix B	11
MANAGEMENT RESPONSE	13
ONPA COMMENTS REGARDING MANAGEMENT RESPONSES	19
NATIONAL PUBLIC AUDITOR’S COMMENT	21
ONPA CONTACT AND STAFF ACKNOWLEDGEMENTS	22

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

INTRODUCTION

The audit on the Management of the Impacts of Climate Change on Food Security in the FSM was conducted by the Office of the National Public Auditor – FSM, as part of a cooperative audit initiative developed by the Pacific Association of Supreme Audit Institutions with the support of the Asian Development Bank, INTOSAI Development Initiative and the Victorian Auditor General’s Office. The audit was designed to assess the effectiveness of the actions taken by key agency/agencies in developing and implementing strategic action plans to address the impacts of climate change on food security in the FSM.

Background

The FSM is comprised of 607 islands in the western tropical Pacific Ocean. These islands vary in size from low-lying and forested small atoll islets, typically 1 to 5 meters elevation (low lands) that disappear at the high tide, to densely vegetated and extinct large volcanic islands of several hundred meters elevation (high islands). Approximately 65 of the islands are inhabited. The population lives in coastal zone and is vulnerable to climate-related changes in precipitation, sea level rise, and extreme weather conditions such as storms and coastal erosion.

Climate Change

*Climate Change*¹ is defined as a change in the average weather observed over a period of time. Climate change may be referred to as local, regional and sometimes as global average weather in a given timeframe. The Inter-governmental Panel on Climate Change (IPCC)² latest (2013) report concludes that the warming of the climate system is definite and can be observed from:

- An increase in average air and ocean temperatures;
- An increase in the average global sea level;
- Widespread melting of ice and snow, such as polar ice-caps; and
- Changes in weather including the frequency and intensity of severe weather events (e.g. tropical cyclones and storm surges).

The climate change impacts are in addition to effects of natural climate variability. In the FSM, there is little seasonal variation in temperature, with less than 3°F (1.5°F) between the average hottest and coolest months. The country has two distinct seasons – a wet season from May to October and a dry season from November to April. The FSM’s climate varies considerably from year to year due to the El Nino-Southern Oscillation. El Nino events are associated with drier conditions and occasional droughts. Fires, water and food shortages occur during severe dry events. During La Nina events, above-average numbers of tropical storms occur as well as more rainfall.

¹ Inter-governmental Panel on Climate Change: www.ipcc.org

² The IPCC is the leading scientific advisory body for the United Nations. Their task is to provide the world with a sound scientific view on the current state of climate change and its potential environmental and socio-economic consequences.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

The resulting changes in the frequency and severity of extreme weather events from climate change will significantly increase the vulnerability of most Pacific Island states. Projections for FSM by the Pacific Climate Change Science Program 2011 for all emissions scenarios show that:

- Temperatures will continue to rise
- Sea level will rise
- Ocean acidification will increase
- Extreme rainfall events will be more frequent and bring more rain
- Tropical cyclone numbers are projected to decline

Therefore an increased ability of governments and communities to identify and plan how to adapt to climate change improves their capacity to respond to and can reduce their vulnerability to these extreme events.

Climate Change Adaptation

It involves the development of policies, plans and practices implemented on the ground to assist natural and human systems to adjust to actual or expected climate change effects.

Food Security and Impact of Climate Change

Food Security

Food Security exists when all people at all times have physical or economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO³, 1996). The four dimensions of food security are:

- Availability – enough food is available, when needed
- Access – households can grow, purchase or exchange what they had with the food they need
- Utilization – people know how to eat a balance of nutritious foods that are safe
- Stability – the food supply is unlikely to be interrupted, e.g. by natural or economic disaster.

For food security to be realized, all of the four dimensions must be fulfilled simultaneously (refer to Appendix A for more detail on the four dimensions of food security).

According to FSM statistics on importation for 2007, FSM relies heavily on imported food, with around 80% imported. Currently, due to the rise in sea-level, people from the low lying atolls have lost their major food supply (taro). They are unable to feed their families and are migrating to the high lands. Which in return, it has affected the high lands food supply considering they were not prepared for the increase in migration.

³ Food and Agriculture Organization of the United Nation

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

On December 30, 2008, the FSM President declared a nationwide state of emergency. Teams of damage-assessment specialists, accompanied by emergency medical personnel and food supplies, travelled by plane and boat to nearly all of the 61 inhabited islands of the nation. Micronesia, which had previously dealt largely in conceptual terms with the impacts of global climate change, suddenly faced the harsh and destructive realities of sea-level rise. Food security was identified as the number one problem in the nation.

Impact of Climate Change on Food Security

According to reviews on the impacts of climate change in the FSM⁴, the biggest threat to food security systems in the FSM is the projected impacts of climate change. As a small island developing country, the FSM is one of the most vulnerable countries in the world to the impacts of climate change.

In fact, it has already experienced the impacts of climate change on food security. In certain areas (low lying atolls of Chuuk, Pohnpei and Yap States), the crops are being damaged by salt-water intrusion from sea-level rise. A major threat to food security on these islands is the rising sea levels which raise the underground water lens, and bring the salt-water beneath and affecting the plant roots. The taro gardens in particular, have suffered extensive damage, thus reducing the supply of one of the traditional and staple food items. Fertile lands on the atoll islands are affected by coastal erosions. Potential actions for adapting to the climate change impacts include: salt tolerant crops, new farming techniques and improved food storage facilities.

Roles and Responsibilities

The Department of Resources and Development is responsible on the President's behalf for supporting and managing the development of the nation's economy and the use of its natural resources. It is required to do this in a sustainable manner and in line with applicable provisions of the Nation's Strategic Development Plan (SDP) relating to economic development, resource management and conservation. The department is further responsible for assisting the FSM States to develop their economies by focusing on the sector areas of fisheries, agriculture and tourism. They are responsible for addressing the nation's climate change issues in relation to the FSM's Food Security needs.

The Office of Environmental and Emergency Management (OEEM) is the technical focal point recognized by the United Nation Framework Convention on Climate Change (UNFCCC)⁵ and the international community. OEEM is also the policy maker for climate change initiatives for the FSM. It is responsible for addressing the climate change issues and providing technical assistance to the four states on any related climate change issues.

⁴ FSM Food Security Vulnerability Assessment 2010

⁵ The United Nation Framework Convention on Climate Change is an international environmental treaty that was produced at the United Nations Conference on Environment and Development in Rio de Janeiro, June, 1992.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Table 1 indicates some of the framework of treaties, laws and policies that FSM government agencies are required to follow in managing climate change impacts on food security.

Table 1: FSM Framework of Treaties, Laws and Policies

Climate Change	Food Security
United Nation Framework of Convention on Climate Change (1992)	Resource & Development Act (1979)
Environmental Act (1980)	Agriculture Policy (2010)
Executive Order 2009 To mainstream Climate Change in Government Plans and Actions	Food Security Policy 2008 (Draft)
FSM Nationwide Climate Change Policy (2009)	

OBJECTIVE, SCOPE AND METHODOLOGY

Objective - The objective of our audit was to determine whether the concerned government entities have developed and implemented an efficient overall strategic action plan to address the impacts of climate change on food security in the FSM.

Scope – On this audit, we focused on OEEM and R&D and their development and implementation of action plans related to the impact of climate change on food security. Our audit covered the period from fiscal year 2010 – 2012.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence that we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. In addition, we conducted this audit, pursuant to the authority vested in the Public Auditor as codified under Chapter 5, Title 55 of the FSM Code, which states in part:

“The Public Auditor shall inspect and audit transactions, accounts, books, and other financial records of every branch, department, office, agency, board, commission, bureau, and statutory authority of the National Government and of other public legal entities, including, but not limited to, States, subdivisions thereof, and nonprofit organizations receiving public funds from the National Government.”

Methodology – To satisfy our objective we performed the following:

We visited the offices at the FSM National Government in Palikir, Pohnpei, of OEEM and R&D. We obtained and reviewed relevant international, regional and sub-regional agreements along with the enabling legislation. We also interviewed key officials of R&D and OEEM and relevant agencies that play significant roles in implementing and monitoring food security activities as well as climate change related issues and arrangements.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

In addition, we visited Kolonia, Pohnpei State Government's Office of Agriculture to obtain data on projects administered at the state level in coordination with the national government. Then, we site visited farmlands to observe and note the existence of the projects and match the data indicated in documents obtained.

We also visited Yap State Government offices such as The Office of Agriculture, College of Micronesia – Land Grant Division, Marine Resource and Budget and Planning. We interviewed key officials and obtained relevant documents, and visited farmlands to observe and note the existence of projects to match data obtained.

We also visited the state of Chuuk to meet with key officials at the Chuuk State Government's offices such as: Office of Agriculture, Environmental Protection Agency, College of Micronesia – Land Grant Division, Marine Resource and the Chuuk Conservation Society. We also obtained relevant documents and interviewed key officials.

PRIOR AUDIT COVERAGE

This was the first audit conducted by ONPA related to Climate Change and Food Security.

CONCLUSION

Based on our audit, we concluded that inadequate policy and planning by R&D and OEEM led to minimal action. The actions thus far taken to address the impacts of climate change on food security has been uncoordinated and inefficient, with no assessment of whether these actions are improving food security. There are no clear established and comprehensive goals and objectives, with corresponding activities contributing the desired outcomes. In other words, there is no assurance that FSM could successfully respond to the impact of climate change on food security.

- No Comprehensive Action Plan to Address the Impacts of Climate Change on Food Security
- Inadequate food security vulnerability assessment
- Inadequate food security policy (Agriculture policy)
- Duplication of efforts/overlapping activities between national and state as well as non-government organization (NGOs)

The findings and recommendations are discussed in details in the following pages.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

FINDINGS AND RECOMMENDATIONS

Finding #1: No Comprehensive Action Plan to Address the Impacts of Climate Change on Food Security

The President of the FSM issued an Executive Order on December 2009, directing all relevant sectors to update existing plans and complete them as a measure to bolster responses towards mitigating and adapting to climate change. The sectors included agriculture (and food security), energy, water, infrastructure, transport, finance, health, gender and other relevant sectors.

The R&D did not have a Food Security plan in place. It commenced drafting one in 2008, in consultation with relevant agencies including OEEM, but this was never documented, finalized or implemented. Instead, it relies on the FSM- Strategic Development Plan to be its plan (FSM-SDP). However, the FSM-SDP is a broad, whole-of-nation plan that is too general to fit the specific needs of each state. For example it does not address the following:

- Specify actions to address the identified vulnerabilities
- Prioritize high risk areas
- Identify responsibility for implementing those actions
- Timeframes
- Budgets
- Performance measures
- Coordination and reporting arrangements.

In the absence of a food security plan, both the national and state governments do not have better collaboration in terms of ongoing activities. The ongoing climate change and food security activities may not be aligned or relevant to the goals and objectives. The absence of a plan also increases the risk that efforts are duplicated for some activities while other activities are overlooked, and that funding is not being used where it is needed most.

Some of the funding appropriated by FSM Congress was given to the R&D for the Food Security and Coconut Rehabilitation Project. In turn, R&D expects each state to provide some proposals to apply for the funds. However, R&D did not plan the Food Security Rehabilitation project well, which led to the following problems:

- The Food Security and Coconut Rehabilitation project was not linked to the vulnerability assessment, or other evidence-base or risk assessment for selecting the project
- R&D received proposals from states but it did not have good criteria for judging whether the proposals met project needs
- R&D has not accounted for the funds allocated but not spent by states. R&D did not consult with the states in developing the project and as a result, Chuuk and Yap considered it did not meet their needs.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Cause and Recommendations

R&D considers the FSM-SDP provides all the planning direction they require for food security. So while it started drafting a food security plan, it has not prioritized food security as an issue nor completed the plan.

A good planning process will also provide the opportunity for the states to contribute to identifying the solutions to food insecurity issues that are relevant to their local situation. In this case, R&D does not see the need to create their own SDP to better address the needs of the department.

We recommend that R&D, in consultation with OEEM and other related agencies at the state level should develop and implement a comprehensive Food Security Plan that;

- Complies with the food security policy
- Integrates the impact of climate change and addresses the identified vulnerabilities
- Has a mechanism for how the states will be engaged, what responsibilities they will have and what reporting they will do
- And how FSM will coordinate and monitor the work of the states as well as the review mechanism.

Finding #2: Inadequate Food Security Vulnerability Assessment

Best practices in assessing the vulnerabilities of food security to climate change require comprehensive understanding of household food security situations to enable an effective response. The comprehensive vulnerability assessment should consider a holistic view of the whole nation (ridge to ridge) and address various aspects of food security including food security status of the various segments of a population or region, analysis of the underlying causes of vulnerability that is induced by climate change, and recommendation as to appropriate intervention to deal with the problem.

In 2010, R&D issued a report on the FSM Food Security Vulnerability Assessment. While the assessment considered the impacts of climate change on food security, we noted that it did not address most of the basic aspects of Food Security. For instance, we noted that the scope of the four pillars or dimensions of food security addressed in the FSM Food Security Assessment did not cover the whole FSM. The assessment was limited to the low lying atolls and did not include the high lands vulnerabilities.

Furthermore, the Vulnerability Assessment was limited in providing a breadth of information on the political, socio-economic and agro-ecological context, food balance sheet, food supplies, markets, livelihoods, coping strategies, nutrition, health and education.

The assessment did not identify the following:

- An in-depth profile of food-insecurity and vulnerability;

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

- An in-depth profile of food insecure and vulnerable people, and their livelihoods;
- An analysis of markets, their functioning and price trends in the country;
- And, an analysis of risk (hazards, natural disasters and economic shocks) and their potential impact on the most vulnerable.

As a result, the FSM is not prepared well to address the vulnerability of the food supply of the nation in case of extreme conditions like for example when importation of food via air and ocean is down or more farming land is lost with sea level rise. In addition, the report might not be utilized in a timely manner to address the high risk areas in the food security chain that could be affected by climate change that needed attention. FSM might not know in advance where the most vulnerable people are located and what causes their vulnerability facilities, and might not address their emergency needs after a crises strike.

Cause and Recommendations

Despite the president's 2009 declaration of a food security emergency and the food security vulnerability assessment that followed in 2011, neither the OEEM nor the R&D has made it a priority to act on the vulnerability assessment, and to review and improve the assessment to draw on the strategic action plans to address the impact of climate change on food security.

We recommend that the R&D in consultation with OEEM should collaborate to work together to conduct a comprehensive food security and vulnerability assessment that should integrate the climate change impacts on food security covering not only the low lying atolls, but the high atolls (ridge to ridge) and all the food components such as agricultural products, fish, and imported foods as well.

Finding #3: Inadequate Food Security Policy (Agriculture policy)

In accordance with the Food & Agriculture Organization standards⁶, a nation should have a food security policy in place to address its food insecurities and alleviate food poverty among its population.

FSM does not have a separate food security policy. Instead, it has an agriculture policy (2012-2016) that has in part addressed food security. However, we noted that the current agriculture policy is not addressing all the components of food security that include fisheries and food (imported & locally grown). Furthermore, although the Agriculture policy incorporated some aspects of food security it does not have a comprehensive view on food security nor does it mainstream the impacts of climate change.

For instance, the agriculture policy provides the basis for action by both public and private sectors to invigorate sustainable agriculture growth in the FSM. It recognizes the major role played by traditional farming systems and the impact of socio-cultural realities. Yet, it does not address any climate change related issues, such as the need to transition traditional farming systems towards

⁶ Food and Agriculture Organization of the United Nation Strategic Action Plan (2011)

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

food crops and farming techniques that can cope with salt-water intrusion. R&D developed a draft on food security policy in 2009 following the President's declaration on nationwide emergency in regards to food security but this has never been finalized. While this is specific to food security and incorporates some climate change considerations, it is also very general.

As a result, R&D has not produced a specific policy direction for managing climate change impacts on food security. The other national as well as the state government agencies do not have clear authority and direction to implement measures to address food insecurities considering the impact of climate change.

Cause and Recommendations

R&D considered that the food security component in the agriculture policy was sufficient to address the food insecurities in FSM and had not prioritized the need to include the results of the FSM Vulnerability Assessment or the President's requirement to incorporate climate change. Nor had it prioritized finishing the draft on the food security policy.

We recommend that R&D should develop and implement a Food Security Policy to address the impact of Climate Change on food security. The policy should include the following:

- Climate change impacts on Food Security
- Actions to address the vulnerabilities
- Responsibility for coordinating actions to implement the policy
- Responsibility for implementing individual actions
- Mechanisms for managing national-state consultation and coordination.

Finding #4: Duplication of Efforts/Overlapping Activities between National and State as well as Non-Government Organizations (NGOs)

Prudent practices dictate that inefficiency thru duplication of efforts should be avoided to save on cost and increase productivity.

We noted that R&D and OEEM are not aware of any ongoing efforts on food security related activities being administered or to be administered by other national, state agencies and NGOs. The related activities could provide a wealth of resources and knowledge in the identification of food security vulnerabilities and risks but they were never compiled and assessed to determine redundancies and duplication of efforts. The government agencies and NGOs could even make these funds and resources more productive by pooling them and conducting shared and more comprehensive and reliable studies. From the results of our analysis, of the only two national programs related directly to food security, we observed the existence of overlapping activities between the National/State Government, NGOs and other agencies.

We noted that there have been several vulnerability and risk assessments by national, state and NGO programs related to food security and climate change (refer to Appendix B). We could not

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

access the funding information from the NGOs but many of these projects are sizeable so the funds duplicated on these projects could be considerable.

As a result, overlapping activities could cost the national government and would result in some of the funds wasted and not expended appropriately for the benefit of FSM.

Cause and Recommendations

The cause of duplication of effort is due to absence of a comprehensive plan that would serve as reference point in defining all the activities related to food security. This also led to a lack of coordination between national, state and NGOs.

We recommend the R&D to designate a person to coordinate and monitor climate change/food security related activities and should assess whether the efforts administered by the national, state, communities, agencies, NGOs overlap and recommend that the budget for those activities be put into more productive use. Furthermore, the National should coordinate well with the State and NGOs in terms of planning to avoid any overlapping activities and should record all projects/programs to readily identify and avoid repetitive and overlapping activities.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

APPENDICES

Appendix A

Four Dimensions of Food Security

Food Availability:	Food Availability addresses the “supply side” of food security and is determined by the level of food production, stock levels and net trade.
Food Access:	An adequate supply of food at the national or international level does not in itself guarantee household level food security. Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets and prices in achieving food security objectives.
Food Utilization:	Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, and diversity of the diet and the intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the nutritional status of individuals.
Food Stability:	Even if your food intake is adequate today, you are still considered to be food insecure if you have inadequate access to food on periodic basis, risking a deterioration of your nutritional status. Adverse weather conditions, political instability, or economic factors (unemployment, rising food prices) may have an impact on your food security status.

Appendix B

Overlapping Activities between FSM National, State and NGOs

No.	Title and Timeframe	Description/Focus / Agency Responsible/Output
1	Climate Change in the Federated States of Micronesia	To identify climate risk and options for managing those risks in FSM. <ul style="list-style-type: none"> - Study partners – U.S. Forest Services, U.S. Geological Survey, FSM, and University of Hawaii Sea Grant College Program
2	Climate Change and Food Security Vulnerability Assessment of Federated States of Micronesian Atoll Islands <ul style="list-style-type: none"> - March 17, 2010 – April 13, 2010 	Climate Change/Food Security Vulnerability Assessment on 14 atoll islands in the states of Pohnpei, Chuuk and Yap. A total of 8 teams conducted the study covering the areas of marine, soil, water, agriculture and land use, disaster, forest, trees, and vegetation and socio economic. This study was conducted to fulfill the UNFCCC requirement of the preparation of national communication. Also, the information gathered would help FSM formulate proper responses to the impacts of climate change. <ul style="list-style-type: none"> - FSM Office of Emergency and Environmental Management (OEEM), Secretariat of the Pacific Community (SPC) Land Resource Division.
3	Climate Change Profile – FSM	The Climate Change Profile is specific in nature and seeks to inform the Global Climate Change Alliance (GCCA): Pacific Small Island States (PSIS) project as well as the larger SPC climate change support team. It

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

		<p>commences with a section on the country’s background, including geography, economy, financial management and aid delivery. It is followed by a section focusing the country’s response to climate change, including climate change projections, institutional arrangements, ongoing adaptation activities and climate change priorities. The profile is a work in progress and will be revised and enhanced as the project develops.</p> <ul style="list-style-type: none"> - The purpose of the GCCA: PSIS project is to promote long-term strategies and approaches to adaptation, and pave the way for more effective and coordinated delivery to climate change, including the delivery of streamlined adaptation finance, at the national and regional level.
4	<p>Federated States of Micronesia Food Security Vulnerability Assessment Report (Final Draft)</p> <ul style="list-style-type: none"> - March 2011 - By: Gibson Susumo and Mark Kostka 	<p>Developed thru consultancy meetings in all FSM states. The purpose of the paper was to assess the food insecurity and its causes in the FSM. Four projects were conceptualized as a result of this study: 1. Household Food Security and Sustainable Livelihood Project; 2. Integrated Atoll Farming System and Capacity Building; 3. Integrated Coconut Development; 4. Fisheries and Aquaculture Development.</p> <ul style="list-style-type: none"> - Supported by FAO through financial and technical support. FAO provided guidance in the development of national food security assessment. - Supported by SPC for technical assistance -
5	<p>Pacific Adaptation Strategy Assistance (PASAP): Impact of Climate Change on Food Security in the FSM</p>	<p>Funded by Australian Government</p>

**Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01**

MANAGEMENT RESPONSE



OFFICE OF ENVIRONMENT & EMERGENCY MANAGEMENT
P.O. BOX PS-69
PALIKIR, POHNPEI FSM 96941
Phone: (691) 320-8815 Fax: (691) 320-8936

October 23, 2013

Mr. Haser Hainrick
National Public Auditor
Office of the National Public Auditor
FSM National Government
Palikir, Pohnpei FM 96941

Haser
10.25.2013



Subject: Management Response – Audit on Management of the Impacts of Climate Change on Food Security in the FSM

Dear Mr. Hainrick:

Thank you, and especially your staff auditors, for the opportunity to discuss the outcome and findings of the subject audit during the exit conference. As the first audit of climate change activities in the FSM, I must congratulate your office for an excellent job.

I apologize for the delay in the submission of OEEM's Management Response to the audit findings. But please find attached our responses to the audit findings. I hope the responses are clear enough. If not, please do let me know and I will be happy to elaborate some more.

Thank you.

Sincerely,

Andrew R. Yatilman
Andrew R. Yatilman
Director, Office of Environment and Emergency Management

Attachment

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Office of the National Public Auditor
Audit on the Management of the Impact of Climate Change on Food Security in
the FSM
Audit Report 2013

Management Response

Finding #1: No Comprehensive Action Plan to Address the Impact of Climate Change on Food Security

The OEEM management is generally in agreement with the finding. The President approved the Nation Wide Climate Change Policy in 2009 directing all relevant sectors to update existing plans with the aim of mainstreaming climate change.

The Department of Resources and Development may have a reason unknown to us for not completing the Food Security plan that it commenced drafting in 2008 but we can only encourage that R&D completes it as per the President's directive of 2009.

OEEM, as the operational focal point for all climate change matters in the FSM, will work in consultation with the Department of Resources and Development and other related agencies at the state level to help develop and implement a comprehensive Food Security plan that incorporates the recommendations as outlined in your audit findings.

Finding #2: Inadequate Food Security Vulnerability Assessment

The management is generally in agreement with the finding in terms of the need for better understanding of food security situation in the FSM through a comprehensive food security vulnerable assessment. We wish to point out, however, that while we would all want this to happen there are limiting factors at play.

For a country so dispersed as the FSM, conducting a comprehensive food security vulnerability assessment is not an easy task. Transportation and logistics are great challenges for the FSM. Transportation is cost-prohibitive both by air and sea. And organizing a vulnerability assessment covering the low lying atolls and high islands require substantial investment in both time and financial resources; resources that are very limited in the FSM.

The policy question to ask then is: what exercise is affordable and practical? And can we still attain a representative picture of food security situation in the FSM as opposed to conducting a comprehensive vulnerability assessment? As in random sampling, there is value in it for understanding the bigger picture. As pointed out in the audit, limited assessments are conducted. Due to limited resources, especially financial resources, we believe there is value in them for understanding the bigger

105-B 2/3

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

food security situation in the FSM. Unless there is sufficient financial resources to enable the government to carry out a comprehensive food security vulnerability assessment throughout the whole nation, we are limited in the scope of what we can ideally do in food security vulnerability assessment.

105-B 3/3

**Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01**



DEPARTMENT OF RESOURCES & DEVELOPMENT
Federated States of Micronesia
P.O. Box PS-12
Palikir, Pohnpei FM 96941
Phone: (691) 320-2620/2646/5133; Fax: (691) 320-5854
E-mail: fsmrd@fsmrd.fm

December 1, 2013

MEMORANDUM

TO: National Public Auditor

FROM: Secretary

SUBJECT: Management Response to Audit on the Management of the Impact of Climate Change on Food Security in the FSM



Thank you for this opportunity to comment on the findings of your audit on the management of the impact of climate change on food security in the Federated States of Micronesia. As correctly pointed out, climate change impacts all sectors including “food security”. Though we certainly cannot control climate change, there are a number of areas wherein we could respond to better prepare the FSM and its people against the impacts of climate change.

As correctly pointed out in the audit, food security exists when enough food is available (availability), all people at all times have access to the food (access), the food is utilized under sanitary conditions and in proportions that meet the nutritional requirements of a healthy life (utilization), and in adequate quantity and storage conditions that ensure stable supplies (stability). Since all these dimensions must be met, any effort to address food security should include all the three pillars of sustainable development (economic, social and environmental).

The FSM faces many challenges in its sustainable development efforts which are exacerbated by climate change. An increasing preference for consumption of imported food by the local people, the concentration of people in State centers, and the absence of a robust economy and consequent lack of cash earning opportunities further erode food security in the FSM.

Any action to address the impacts of climate change necessarily begins with resource conservation, the sustainable use of natural resources, and the protection of the environment as it is now generally recognized that a pristine environment with healthy biological components would ensure resilience to impacts of climate change. A lot of the actions in this area are undertaken under the “Micronesia Challenge” initiative which includes the establishment of protected areas, watershed management and the development of sustainable farming and fishing practices. In this regard, the Department of Resources and Development fosters partnership with the Office of Environment and Emergency Management as well as Non-Government Organizations (NGOs) like The Nature Conservancy (TNC), the Micronesia Conservation Trust

105-C 1/3

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

(MCT), the Conservation Society of Pohnpei (CSP), the Yap Institute of Natural Science (YINS), the Chuuk Conservation Society (CCS) and the Kosrae Conservation and Safety Organization (KCSO).

It should be pointed out that addressing climate change impacts is a cash-intensive undertaking that requires financial and technical capabilities beyond the capacity of the FSM. In this respect, the FSM National Government seeks and fosters collaboration with sub-regional, regional and international agencies and organizations.

As discussed during our meeting, R&D welcomes and accepts the audit findings (in spite of its simplistic approach) to focus international attention on the need to immediately reduce Green House Gas (GHG) emissions which contribute to climate change and to garner assistance and support to developing nations (small islands developing states in particular) in addressing impacts of climate change. R&D will continue to collaborate with other departments/offices/agencies of the National and State governments and international partners in all aspects of addressing the four dimensions of food security (accessibility, availability, utilization and stability).

In regard to managing impacts of climate change on food security, following are comments and response to the findings of the audit:

Finding #1: No Comprehensive Action Plan to Address the Impact of Climate Change on Food Security.

I disagree that R&D has not prioritized climate change and good food security actions. As pointed out above, managing climate change begins with environmental and resource sustainability as well as economic and social development issues which are being addressed through ongoing activities.

The development of an FSM Agriculture policy has been completed and endorsed. What is currently lacking are specific action plans to implement the policy. R&D is seeking additional resources to develop State-specific action plans which will also integrate climate change issues and concerns as well as the prevention and control of invasive alien species.

Though there is currently no comprehensive action plan document addressing the impact of climate change on food security, there are ongoing efforts to increase food crop and plant production. Planting material for bananas, breadfruit, taro, sweet potatoes and other food crops and plants as identified and prioritized by each FSM State have been acquired and distributed throughout the islands. The biggest challenge to the success of this undertaking is transportation, as R&D is solely dependent on the scheduling of the M/V Voyager.

R&D will continue to seek additional financial and technical resources to undertake the recommended actions. Just as importantly, R&D will continue to collaborate, with other departments/agencies/offices and international organizations, in promoting increased local food production and the consumption of local food.

105-C 2/3

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Finding #2: Inadequate Food Security Vulnerability Assessment.

As correctly pointed out in the audit, the FSM is most vulnerable to climate change and its impacts on food security in particular. With or without climate change challenges, it is generally recognized that the coral islands are the most food insecure due to limited land area and poor soil conditions. Within this context, food security efforts have been concentrated in those islands. R&D is not limiting its efforts to the coral islands however and has thus also been working with relevant State departments/offices/agencies in providing assistance to volcanic islands as well.

There are limited options to the FSM in addressing climate change issues as the most adequate responses may be beyond our control and capacity. Nevertheless, it is recognized that we could best prepare ourselves by ensuring that our resources are managed and utilized in sustainable manners. R&D will continue its efforts to address food security challenges as exacerbated by climate change.

Finding #3: Inadequate Food Security Policy (Agriculture policy).

As mentioned above, R&D will seek additional resources to develop actions plans to implement the adopted Agriculture Policy. The action plans envisioned will include addressing food security in relation to not only climate change but economic development to enable access to local food in markets and imported quality food.

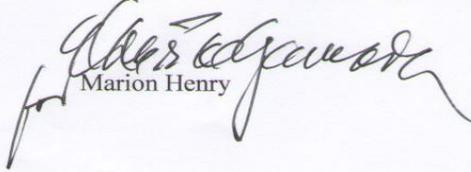
Finding #4: Duplication of Efforts/Overlapping Activities between National and State as well as Non-Government Organizations (NGOs).

I agree that there are a number of duplication and overlapping activities in addressing the challenges facing the FSM and climate change impacts on food security in particular. A lot of the activities undertaken throughout the FSM are funded by international partner agencies which are often driven by donors.

Within the above context, the FSM has recently developed an Official Development Assistance Policy to coordinate efforts. Rather than duplicating efforts envisioned in the implementation of the policy, R&D will work closely with the Office of Budget, Overseas Development Assistance and Compact Management (SBOC).

In conclusion, I understand that this is the first audit undertaken by the Office of the National Public Auditor (ONPA) in this intricately complicated area and commend your staff for the effort. R&D will however consider the recommendations as relevant and applicable within its financial (budget) and technical capacity.

Please let me know if I could provide additional information as needed.


Marion Henry

105-C 3/3

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

ONPA COMMENTS REGARDING MANAGEMENT RESPONSES

The *Department of Resources and Development* and the *Office of Environment and Emergency Management* generally agreed with our findings and recommendations. However, we are clarifying some of the observations made by both departments on their responses:

Department of Resource and Development (R&D)

On paragraph three on page two, the R&D management commented that *“they welcome and accept the audit findings (in spite of its simplistic approach) to focus international attention on the need to immediately reduce Green House Gas (GHG) emissions which contribute to climate change and to garner assistance and support to developing nations in addressing impact of climate change.”*

ONPA Comments: It should be noted that the government responses on climate change would be to adapt and mitigate its impact. We like to clarify that our audit scope was on adaptation measures to address the impacts of climate change on food security and not on mitigation measures to address the emissions of Green House Gas (GHG) which causes the climate change.

Finding #1: No Comprehensive Action Plan to Address the Impacts of Climate Change on Food Security

The R&D disagreed with our statement that *“it has not prioritized climate change and a good food security plan”*.

ONPA Comments: The R&D agreed that they have no Comprehensive Action Plan to address the impacts of Climate Change on Food Security. However, we removed in the final audit report the reference to *“climate change not prioritized”*. We wish to state though that this statement was borne by the fact that R&D did not fully develop and implement a Comprehensive Food Security Plan.

Finding #4: Duplication of Efforts/Overlapping Activities between National and State as well as Non-Government Organizations (NGOs)

R&D stated in their response that *“a lot of the activities undertaken throughout the FSM are funded by international partner agencies which are often driven by donors.”*

ONPA Comments: Since the government normally gives its endorsement and may impose conditions before an NGO could secure funding for their activities, R&D may use this as opportunity to coordinate efforts and avoid duplication of efforts/overlapping of the activities. The development of an Official Development Assistance Policy was a welcome move in this regard.

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

Office of Environment and Emergency Management (OEEM)

Finding #1: Inadequate Food Security Vulnerability Assessment

In its management response, OEEM indicated that due to limited resources it used random sampling by covering only low lying atolls in its food security vulnerability assessment.

ONPA Comments: The method and design of a sampling have to be right because, if not, the results will not be useful. Sampling will work if all the FSM states have uniform challenges, needs, conditions, expectations, etc. If they're all different in each state, employing random sampling will yield results that will mislead the planners and the users.

We wish to clarify also that there were factors other than the low lying atolls as the focused area that led to ONPA observation that there was inadequate food security vulnerability assessment made. We observed that the assessment was very limited and lacked information on political, food balance sheet, in-depth profile of food insecure and vulnerable people and their livelihoods, nutrition, coping-strategies and others. It also did not consider other food components such as fish and imported foods.

Finding # 2 – Inadequate Food Security Vulnerability Assessment

OEEM responded that the government was not able to carry out a comprehensive food security vulnerability assessment because: (1) there have been insufficient financial resources, and (2) transportation and logistics are cost-prohibitive both by air and sea.

ONPA Comments: While this is true and in fact, these limitations are prevalent everywhere especially in the small island nations, there are opportunities to access large sums of grants/funds from out of country sources.

In addition, costs and inter/intra-island transportation are some of the challenges but these are not new. They have been known for a long time. With sufficient plan and its execution in place however, ONPA believes that FSM can adapt well to capitalize on its available resources in order to mitigate any challenges and perform a comprehensive vulnerability assessment.

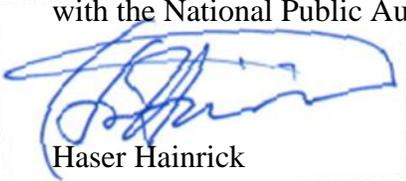
Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

NATIONAL PUBLIC AUDITOR'S COMMENT

We would like to thank the management and staff of Department of Resources & Development (R&D) and Office of Environment and Emergency Management (OEEM) and other departments in the other respective states for their assistance and cooperation during the course of the audit.

In addition to providing copies of the final report to the President and Members of the Congress, we will also send copies to the Secretary of R&D and the Director of OEEM. Furthermore, we will make copies available to other interested parties upon request.

If there are any questions or concerns regarding this report, please do not hesitate in contacting our Office. Contact information for the Office can be found on the last page of this report along with the National Public Auditor and staff that made major contributions to this report.



Haser Hainrick
National Public Auditor

December 5, 2013

Office of the National Public Auditor
Audit on the Management of the Impacts of Climate Change on Food Security in the FSM
Audit Report 2014-01

ONPA CONTACT AND STAFF ACKNOWLEDGEMENTS

ONPA CONTACT: Haser H. Hainrick, National Public Auditor
Email: hhainrick@fsmopa.fm

ACKNOWLEDGEMENTS In addition to the contact named above, the following staff made key contributions to this report:

Manuel San Jose Jr., CPA, CGAP, CIA CISA, CRMA, Audit Manager
Elina Paul, Auditor-In-Charge
Aisi Mori, Staff Auditor

ONPA MISSION We conduct audits and investigations to improve government operations, efficiency, and accountability for the public's benefit.

Copies Available at: www.fsmopa.fm

Copies by mail or phone: Office of the National Public Auditor
P.O. Box PS-05
Palikir, Pohnpei FM 96941

Phone: (691) 320-2862/3

CONTACT Website: www.fsmopa.fm
Hotline: (691) 320-6768
