(Index and Executive Summary to be added after acceptance)
Yap Division of Agriculture and Forestry Strategic Action Plan 20172021 (Draft)

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#### **Abbreviations**

AES Agriculture Experiment Station

BTS Brown Tree Snake

CMNI Commonwealth of the Northern Marianas Islands

COM-FSM College of Micronesia

CES Cooperative Extension Service

COP Council of Pilung
COT Council of Tamol
CPS Compact Private Sector

DAF Division of Agriculture & Forestry
DHS Department of Health Services
DOT Department of Transport
DPS Division of Public Safety

DR&D Department of Resources & Development

ENSO
El Niño-Southern Oscillation
EPA
Environmental Protection Agency
FAO
Food and Agriculture Organization
FRM
Forest Resource Management
FSM
Federated States of Micronesia

FY Fiscal Year

GEF Global Environmental Facility
GIS Geographic Information Systems

GGF Global Greengrants Fund
GPS Global Positioning System
IDPs Individual Development Plans

IS Invasive Species

IAS Invasive Alien Species

ISSG \ Invasive Species Specialist Group IST Invasive Species Taskforce

MC Micronesia Challenge

MCC Micronesia Challenge Coordinator MCT Micronesian Conservation Trust

MRMD Marine Resources Management Division
NBSAP National Biodiversity Strategic Action Plan

NEG National Emergency Grant

NEMS FSM Nationwide Environmental Management Strategy

NGO Non-Governmental Organizations
NISC U.S. National Invasive Species Council
PILN Pacific Invasive Learning Network
PSIP Public Sector Investment Program
RISC Regional Invasive Species Council

S&P State and Private SAP Strategic Action Plan

SBDP Small Business Development Program

SDP Strategic Development Plan

SPC Secretariat of the Pacific Community

SPREP Secretariat of the Pacific Regional Environment

Programme

SWOT Strength, Weaknesses, Opportunities and Threats

TA Technical Assistance

TECAs Terrestrial Effectively Conserved Areas

TOR Terms of Reference
TNC The Nature Conservancy

U&CF Urban and Community Forestry

UNDP United Nations Development Programme

USFS, IPIF U.S. Forest Service, Institute of Pacific Islands Forestry

USPC US PeaceCorp

YapCAP Yap Community Action Program YBSAP Yap Biodiversity Strategic Action Plan

YINEC Yap Interagency Nutrition Education Council

YINS Yap Institute of Natural Science YIST Yap Invasive Species Taskforce YSVB Yap State Visitors Bureau

YWA Yap Women's Association

#### 1. BACKGROUND

# 1.1 Geography and Natural Resources

Yap State spans some 100,000 square miles of ocean. Its land area of about 50 square miles consists of some 134 islands and atolls, 22 of which are populated. The State has a population of approximately 12,000 people with roughly 60% living on the main islands and the remaining living on small neighboring islands and atolls. Lying at the western end of the FSM, Yap differs from Eastern Micronesia in a number of ways. Climatically, it lies in an area that generally experiences a monsoon climatic pattern with periods of drought. Geologically, mainland Yap is the oldest island in the FSM with some soils derived from continental rock and others from old volcanic activity with limited areas of coralline soils. The islands of mainland Yap are small and closely clustered resulting in condensed natural communities from ridge top to reefs. Neighboring atolls and islands are significantly smaller and therefore limited in soil resources. The majority of land on Yap is privately owned under a complex traditional tenure system and managed through a mix of traditional and modern technologies.

While the forests of mainland Yap are the most biodiverse in the FSM, they are also the most limited in area. Yap's forests are currently being degraded by activities such as bulldozing, unsustainable timber harvest, conversion to other uses and wildfires, resulting in land degradation, loss of biodiversity, and loss of the ecological services provided by forests and watersheds. These ecological services include clean water, fertile soil, habitat for biodiversity, reduction of erosion and siltation, the controlled release of nutrients and protection of marine habitats. On a more general level, forests and watersheds also buffer climate change and sea level rise. In developed countries where the values of the ecological services provided by natural communities have been studied, it has been found that the value of these ecological services far exceeds the gross national product of the country. In Yap, where the traditional system is so integrated with the islands' ecological system, the ecosystem services of natural communities are essential to the welfare of Yapese people. (1)

#### 1.2 The Mandates

Yap State's goals and objectives for Agriculture and Forestry in the First Yap State Economic and Social Summit (1996) are: "Yap's agriculture and forest resources will be used to provide food supplies, healthy livelihoods, and other resources to the people of the State and opportunities for cash and export income, while protecting the ecological integrity of Yap." Three major objectives under this goal are:

- 1. Food and nutritional security: increase production and consumption of local foods, emphasizing the most sustainable production systems utilizing both modern and traditional means and work closely with other agencies to educate the public on the value of local produce, food preparation, and healthy eating habits.
- 2. Increase cash income from use of agricultural resources, promote import substitution, and export.

3. Wise use and protection of Yap's natural environment: increase awareness and the means to protect the ecological integrity of Yap. (2)

#### 1.2.1 The FSM Strategic Development Plan Agriculture Sector

The 3<sup>rd</sup> FSM Economic Summit resulted in the preparation of the FSM Strategic Development Plan (SDP). The SDP established a mission statement for Agriculture and Forestry that is similar to the Yap State Summit mission, which states: "The agriculture sector, including forestry, shall provide: (i) food security, cash income, and healthy livelihoods; and (ii) opportunities for domestic and export markets, while promoting environmentally sustainable production within a stable and consistent policy framework". This current Yap State Agriculture Strategic Action Palan is formulated to address and indicate the overlap with the FSM Agriculture Policy 2012-2016<sup>(3)</sup>

#### 1.2.2 The FSM Strategic Development Plan Environment Sector

The mission statement of the Environment Sector of the SDP overlaps with Goal 3 of the Yap State Summit and Goal 4 of the Agricultural Sector of the SDP in it's first sentence: "Recognizing the critical importance of the FSM's natural environment to the health and prosperity of this and future generations of Micronesians, the Environment Sector shall support the protection of the Nation's Environment and achieve sustainable development of its natural resources". While the SDP Environment Sector plan does not indicate who is to implement it, a number of the outcomes, activities and outputs listed in the Environment Sector relate to the work of Agriculture and Forestry, and it is understood that the bulk of the work will be undertaken by State Forestry agencies. Activities included in this plan that are mandated by the SDP Environment Sector are referenced in this document.

#### 1.2.3 Recent Developments Relating to Land Stewardship and Forestry

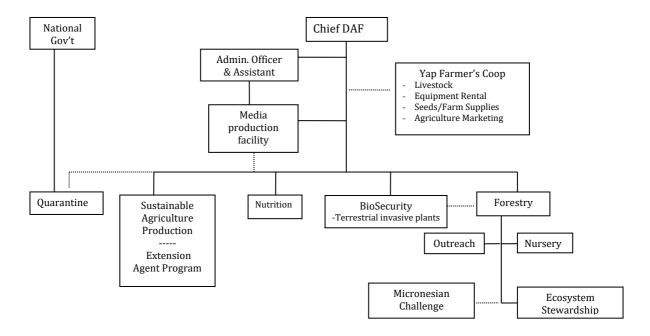
The FSM National Biodiversity Strategy and Action Plan (NBSAP 2002)<sup>(4)</sup> and the Yap Biodiversity Strategy and Action Plan (YBSAP 2004)<sup>(5)</sup> were developed in compliance with the FSM's responsibilities as signatory to the Convention on Biodiversity. Concurrent with and following the development of the NBSAP and YBSAP, The Nature Conservancy (TNC) developed a "Blueprint for Conservation in the FSM (TNC 2003)<sup>(6)</sup>. A series of meetings and plans relating to the FSM's environment occurred in the early 2000's including: The Environment Sector of the FSM Strategic Development Plan (2004)<sup>(7)</sup>. TNC followed up on their blueprint with the Micronesia Challenge, in which the nations of Micronesia have pledged to effectively manage 30% of near shore waters and 20% of land area. Associated with the environment movement within the FSM, a number of funding opportunities have become available. These include: a range of US government grants through Grants.gov, U.S. Compact Environment Sector, Micronesia Conservation Trust (MCT), Global Environmental Facility (GEF) Small Grants Program, European Union programs, and support anticipated as a result of the Micronesia Challenge. (4)

**1.3** In July 2015 – the Secretariate of the Pacific Community (SPC) assigned Poasa Nauluvula of the Land Resources Division, North Pacific Region

Office, to assist FSM to review the effectiveness of the Agriculture Development Policy 2012-2016. As part of that review he assessed the accomplishments of the state agriculture offices toward their state-level strategic action plans. From his assessment he found that although there has been significant progress made in Yap the following priorities still exist. (see also Attachment 1). In addition, Mr. Nauluvula conducted a SWOT analysis for Yap agriculture development (attachment 2)<sup>(8)</sup>

#### 1.4 The Organization of DAF

Figure 1 depicts the proposed organization of DAF. The discussion that follows describes the functions of the various sections and subsections of: 1) The Chief of DAF, 2) Sustainable Agriculture Production, 3) Nutrition, 4) Biosecurity, and 5) Forestry. Quarantine is a function of the FSM National Government that is housed at the DAF facility.



**2.1 Cooperative Programs Agriculture and Forestry:** The above is the proposed organizational structure from the 2009-2014 SAP. It is believed that this was enacted including the termination of the outer island extension system. The focus of the previous SAP and the agency has been primarily on forestry rather than agriculture alone. This is understandable based on the traditional system of food production. Yap is one of the best and most intense examples of managed agroforestry systems in the world. It should be promoted to UNESCO as a potential World Heritage Site.

DAF has focused more on agriculture through forestry to serve the agroforestry traditions. There is also a valid concern for the land and soil degradation that has been taking place in Yap for many years. The soils of Yap are very old and

with the clearing of forests and reduction of recovery intervals for slash and burn systems, large areas of terrain have degraded to the point where little grows accept bracken fern. Agroforestry is a recommended method to rehabilitate those areas and should be encouraged. Agroforestry is especially suited to the subsistence production of foods for family use with potential for sales of some produce in times of excess production. There is now an emerging opportunity for commercial production of crops for marketing in stores, markets and to hotels and restaurants. This evolution needs to be supported.

Current conditions offer opportunity for the development of an effective agriculture extension system if collaboration with partner agencies can be adopted. Due to the improvements in the Cooperative Research and Extension office, Yap campus of the College of Micronesia-FSM, it is now advisable to transfer much of the agriculture and nutrition outreach functions to that office. This would entail development of a satisfactory memorandum of understanding (MOU) between the parties to describe responsibilities and expectations. An agreement would involve financial input from the state, matched by funds from the Land Grant Program. The transferred positions and planned programs would come under the supervision of the CRE Coordinator with planning and management input from the Chief of DAF and possibly an advisory committee. The positions transferred should adhere to the personnel policies of the Yap state government. This would retain a degree of continuity between the agents in DAF and those serving under CRE.

This exchange would primarily be of the Outer Island extension programs and the nutrition program. The CRE is in a strong position to secure the technology required to improve communication with the outer island agents and they in turn would best represent COM-FSM and COM-FSM CRE to the school systems and to the communities being served. The work program of the outer island extension services and the nutrition services would be collaboratively developed by CRE and DAF, described within the CRE annual Plan of Work, and secured by the MOU.

- **2.1.1 Agriculture Program:** The CRE program under the current leadership and researcher have made advances in both livestock production and crop production on Yap proper. They have generally been unable to address the outer islands due to lack of budget and personnel. If the funding for the outer island program were transferred to CRE, they could receive matching funds from Land Grant Program. CRE Agriculture program follows the approved USDA 5-year Plan of work but there is sufficient flexibility to allow for most practical agriculture programs.
  - Root crops advances are being made in the identification of salt tolerant root crops. Swamp taro especially should be selected. These should be tested under Yap conditions, multiplied and distributed. Sweet potato is a rapid return root crop and vegetable. Varieties should be selected to suit local tastes, multiplied and distributed. Colocasia taro should be encouraged, multiplied and distributed. All of these are typhoon recovery plants especially the salt tolerant varieties and should be kept available for such events. This could be at school garden/ nurseries on every atoll.

- Vegetable production has become a commercial operation on Yap proper and also needs to be encouraged for household production and use. CRE must be tasked with the promotion of production methods for both field and household production. Alternative methods should be promoted in the atoll communities where water and poor soils may be a barrier. Hydroponic production should be introduced on atolls and Yap proper. DAF should assist in developing market schemes and hold promotional days periodically through the year.
- Alternative production methods: CRE researcher has developed alternative vegetable production methods for home gardening that would be viable on the atolls. These should be promoted to improve the diets of all Yapese and especially those vulnerable to NCDs.

#### Livestock Production:

- Chickens DAF in collaboration with COM-FSM CRE will import annually 1000 baby chicks of a dual-purpose breed. CRE will arrange to raise them to 8 weeks of age and distribute to approved farmers. CRE will provide training on poultry management and feeding. Private industry will import feed.
- O Pigs Every second year DAF will import 100 vials of swine semen for Artificial Insemination to improve the genetic base of the swine on Yap. CRE will provide the instrument needed fro the AI and will train an identified private individual to do the AI and train farmers to recognize heat cycles. AI service will be provided at-cost to the farmers.
- DAF will assist with importation of approved alternative animals and poultry (such as goats, sheep, geese and ducks or others) upon request and with approval from the FSM quarantine office to reduce potential invasive species problems.
- o CRE will be tasked to identify local feeds and
- CRE will be tasked to educate farmers in livestock best management practices to improve animal care and reduce environmental pollution problems.
- Typhoon readiness this is a fact in Yap. Periodically strong typhoons hit parts of Yap often including the main islands. DAF and CRE must collaborate to be prepared with seed and planting materials to help recover quickly. Having a strong outer island extension force would be a first step. An idea proposed in the previous SAP still holds merit, that being a collaborative effort where the Extension agent might be the agriculture teacher at the local school. CRE should be tasked to explore this option. In that way, the school could be the focal nursery for the atoll and benefit the school with produce.
- **2.1.2 Nutrition Program:** The nutrition program shall be transferred back to COM- FSM CRE to work in conjunction with the Expanded Food and Nutrition Education Program (EFNEP). The focus of the nutrition program shall be the

education of children in the ingredients for and the benefits of a healthy diet, training adults on the understanding of a balanced diet and how that is attained and on the safe preservation of foods for future security. Food safety will also be taught to food handlers in restaurants, schools, cafeterias and other commercial institutions. In particular, the nutrition program will highlight the problems of non-communicable diseases (NCDs), their prevalence in Yap and how food choices can affect this problem.

- **2.1.3 Forestry/ Agroforestry**: Forestry program will remain integral to the programs of DAF. Aroforestry will be under DAF with collaboration from CRE and other agencies, NGOs, NPOs and PIs.
  - DAF should maintain a nursery to supply improved coconut varieties and breadfruit varieties for normal distribution to farms and households as well as preparation for typhoon relief. Selected varieties would be according to local preferences.
    - Nurseries should be maintained at DAF central offices and on selected atolls where the chiefs provide room and labor support.
    - The number of seedlings should be determined by space available and demand as determined by the atoll communities.
  - DAF should produce seedlings of preferred fruit and nut trees at the central nursery. Varieties would be determined by local preferences but should be promoted as wind and salt spray tolerant and promoted as productive windbreaks.
  - Considerable land especially on Yap proper is severely degraded. DAF must produce seedlings of non-invasive nitrogen fixing seedlings to be planted in the degraded areas and protected to help build the soils. Seedlings of Gliricidia sepium and Moringa oleifera are two potential species. Sufficient planting material should be produced to allow for planting of 10 acres per year of government-controlled land. The multiplication of nitrogen fixing trees and shrubs will also support farmers and backyard gardeners and in the case of Moringa, provide a nutritious foliage for human and animal consumption.
  - In addition, the DAF must manage the urban and community forestry programs of the US Forest service and therefore must assign sufficient nursery space for that purpose. Historical use should indicate the need.
- **2.1.4 Tourism collaboration:** The DAF will be in charge of all collaborative efforts with the Yap State Visitors Bureau and the associated agencies. At least 2 exhibits per year will be organized on Yap proper to promote local produce. Yap Tourism office will be involved to include the increasing numbers of visitors. One of the exhibits will be in conjunction with World Food Day in October. Others will be in conjunction with the harvest period for the selected crop.
  - DAF in collaboration with YSVB will evaluate the potential for a network for agri-tourism including some host family farms providing tours and hostel type accommodations. The aim would be to have five

- units available by the end of 2019. This could include outer island farmers.
- In collaboration with CRE, hotels, restaurants and the hospital and schools, DAF will help to promote locally produced foods at exhibitions, though marketing efforts and through example by limiting foods used during meetings to local produce only.

#### 2.2 Quarantine and Environmental Services:

- **2.2.1 FSM Quarantine Services** DAF will continue to host, collaborate with and support FSM quarantine services and assist whenever needed and possible
- **2.2.2 Environmental Protection** DAF will assist EPA and other environment agencies with all agriculture, forestry, land and water related concerns. DAF will monitor pesticide usage, animal waste management and other concerns to ensure the land and waters in and around Yap are not affected.
- **2.2.3 Invasive Species Control** DAF will continue to be an active partner in the Invasive Species Committees at the state and national levels. DAF personnel will participate in efforts to control and/or eliminate the identified invasive species from Yap and block entry of future problems in collaboration with FSM R&D Quarantine. DAF personnel will actively seek out and report new sightings of potentially invasive species.
- **2.2.4 Conservation:** DAF will adhere to and promote the intent of the Micronesian Challenge program in which the nations of Micronesia have pledged to effectively manage 30% of near shore waters and 20% of land area. Agriculture and Forestry programs will be evaluated on the effect of their programs on the environment of Yap.
- **3.0 Agricultural Survey:** the FSM R&D has recently completed an agriculture census covering all of the states of the FSM, with funding and technical assistance from FAO. Statistical analysis is underway by the FSM office of Statistics under the R&D. Information from that census, although pertinent to this SAP is not yet available and may be used at some point in the future to amend this SAP.
- **4.0:** Proposed Logic Model format of the YAP Division of Agriculture and Forestry SAP: The Yap SAP will be developed to link within the objectives recognized for the FSM R&D Agriculture Policy.

Yap Divisi	on of Agricultu	re and Fo	orestry Strategic Action Plan 20	017-2021
Objectives	strategies		Priority Actions	Dates
FSM Strategic Goal # 1 framework	: A well resourced and pro	perly focused a	griculture sector operating within a stable and consi	stent policy
Obj.1.1 Yap Division of Agriculture and	• Obj.1.1.1 By Od 1st of each year on-going the St Legislature is	r and	Prepare and submit 5 year SAP  Prepare and submit performance based budget (PBB) for SAP and for	Oct. 01 and annual Oct. 01 and annual
Forestry (DAF) is adequately funded	approached for budget to be	base	CRE MOU  Plan and submit review and reporting	Monthly &
Tunded	confirmed accor to the legislatur	rding e	schedule	Quarterly
	budget approve year.	d fiscal	Prepare, justify and submit supplemental budget request in a timely fashion (ie. Agr. Fair and special events)	6 months prior to activity
	<ul> <li>Obj.1.1.2 'Outsice agencies approafor funds for specific agencies approarment of the specific agencies approached agencies approached agencies approached agencies approached agencies agenc</li></ul>	ached ecial	With collaborating agencies and stakeholders develop each year a priority list of special projects	By 04/30 annually
	projects as those projects are idea	ntified	Secure grant writer services either hired or contracted	By 09/30/2017
	and approved o on-going basis	n an	Identify and list preferred and potential funding sources, grants and foundations	By 09/30/2017
	Obj. 1.1.3 The D streamlined mo efficiency by Oc	del of	All non-essential services are reviewed, evaluated and budgeted accordingly	By 09/30/2017
	01, 2018	•	Services are transferred to COM-FSM CRE	As of 10/01/2018
		•	Alternate energies are provided for all DAF facilities (Funding to be identified, requested and secured from outside agencies)	By 09/30/2019
		•	Efficient office management strategies are followed	On-going
Obj.1.2 To improve stakeholder involvement	<ul> <li>The DAF is responsive to Stakeholder no</li> </ul>	eeds	The DAF will convene a meeting to identify Stakeholder needs to include in annual budget submission	By 04/30/ Annually
and ownership of DAF programs		•	At each meeting a 'CORE' group of stakeholders is identified for quarterly meetings	04/30/ annual
	anced capacity of sector sta	akeholders	Designation A 11	
Objective Obj.2.1: To	Strategies  The DAF demon	etrates	Priority Actions	Dates By 04/30/18
assist in the provision of services to the agriculture and food communities	support for priv sector, ngo, npo other public par	ate and	Identify, list and convene all agriculture and food related NGOs, NPOs, Councils of Chiefs, YapCAP, church affiliates and private entrepreneurs to coordinate efforts and communications	by 04/30/18
Obj.2.2 To improve the provision of extension	The DAF and pa agencies will collaborate to pr effective extensi	rovide	DAF will have negotiated the Memorandum of Understanding with COM-Land Grant Program and the COM-FSM to reflect the desired model	09/30/2018

outreach to the	outreach to the	of extension management	
communities	communities served	G	
served.			
		The MOU will provide for the transfer	09/30/2018
		of agriculture and nutrition agents. Proper position descriptions are	
		agreed upon for all transfer positions.	
		The MOU will include provision for a	09/30/2018
		representative of the CORE group of	07/30/2010
		stakeholders on the planning and	
		management council of the Extension	
		services provided through COM-FSM CES.	
		<ul> <li>Funding for the CES MOU will be</li> </ul>	10/01/ annual
		subject to the Performance Based	
		Budget model as evaluated by he	
		management council.	
		Starting immediately a monthly	Immediate
		meeting of the DAF management with	
		CES will take place to build the relationship and review CES program	
		accomplishments and plans	
Obj.2.3 To	<ul> <li>DAF with assistance</li> </ul>	DAF and partner agencies will clearly	09/30/2017
improve the	from SPC and the COM-	outline how needed research is	
focus and effectiveness of	FSM AES will identify and conduct necessary	identified, prioritized and presented	
research applied	production and	through FSM R&D for professional and financial support when needed.	
to agriculture	protection research for	and imaneiar support when needed.	
and food	crops and value added		
sciences in Yap	produce		
	<ul> <li>SPC, FSM R&amp;D, and other states create a</li> </ul>		
	research management		
	unit under SPC to		
	manage the necessary		
	logistics to respond to the identified research		
	needs of all states.		
	3: Increased sustainable production (a	nd productivity) of traditional farming systems to provid	e for household
nutrition, traditional ne Objective	Sstrategies	Priority Actions	Date
Obj.3.1 To support		On-going -Through nurseries at	On-going
agroforestry as a	with YapCAP and the	central office and those built on	2 0
preferred form of	councils of chiefs to	the atolls, seedlings of fruit and	
subsistence food	provide increased	nut trees will be made available to farmers and households	
production and so	il nursery space for the production of fruit an		
provement	nut tree for salt	(prototably at cost of production)	
	resistant, productive		
	windbreaks and		
	typhoon recovery support		
Obj.3.2 To support		DAF nurseries and gene-bank will	On-going
and enhance the	support and enhance	provide selected planting material	5 5
traditional	the agroforestry	and varieties of traditional crops	
agroforestry	system of Yap to	to farmers and households	

systems of Yap	protect the	DAF will assist communities	On-going
	environment, maintain the culture and improve productivity through improved management	through management training to manage nurseries to produce selected varieties of coconuts and breadfruit for food security and typhoon preparation.	
	techniques and technologies.  • DAF and collaborators will provide education and services to assist	<ul> <li>DAF and collaborating agencies will provide or will have provided education on improved agroforestry</li> </ul>	By 10/01/2018
	farmers to incorporate improved technologies into traditional systems  Close collaboration with YapCAP and traditional councils of chiefs is improved	DAF will provide 3000 select coconut seedlings and 1500 select breadfruit seedlings at cost unless required for typhoon re- habilitation.	Annual on-going
Obj. 3.3 To assist in the improvement of traditional livestock production	DAF recognizes and assists the production of pigs and chickens at the subsistence level	DAF with CRE, will import 1000 baby chicks of dual-purpose varieties, raise them to a size adequate for to farmers at a break-even cost	By 09/30/2017 annual
		DAF will import 100 vials of selected swine semen for AI on a first come- first served basis to local pig producers	By 09/30/2017 and every second year
		CRE will have trained at least 5 community members to breed sows using AI and train farmers in 'heat' detection.	By 09/15/2017
		<ul> <li>DAF with CRE-AES or other researchers will conduct feed testing trials to develop feeds from local materials and by- products and delivered education to pig and chicken farmers on the research results</li> </ul>	By 09/30/2020
		<ul> <li>DAF collaborates with YapCAP and all partner agencies to move piggeries away from streams and mangrove areas and into deep- litter type facilities</li> </ul>	On-going
Obj. 3.4 To assist in the improvement of crop production in Yap	DAF recognizes and assists in the improvement of traditional crops in Yap by focusing on salt tolerant root crops.	By Sept. 30 <sup>th</sup> 2018 and on-going, DAF will collaborate with YapCAP,CRE, NGOs and other agencies to establish nurseries to provide selected root crop planting materials, at cost, to households and prepare for typhoon rehabilitation.	By 09/30/2018

	<ul> <li>DAF collaborates with COM-FSM CES to promote vegetable production and use at subsistence and commercial levels.</li> <li>DAF collaborates with CRE, gov't agencies, and NGO's to provide healthy meals including local produce to the</li> </ul>	<ul> <li>Starting Oct. 01 2017 or earlier, CES will be tasked to provide nursery management training to improve vegetable production and use.</li> <li>On-going – DAF will support and encourage CRE researcher to identify alternative methods of</li> </ul>	By 10/01/2017  On-going
	participants of the Micronesian games to be held in 2018	crop production for commercial use and in highly populated areas and atolls (Examples might be hydroponics and vertical gardening)	
FSM Strategic Goal #4: Incomarkets	creased volumes of saleable agricultur	ral products to be marketed by the private sector into	o domestic and export
Objective Obj.4.1 To establish standards of quality for the major marketable crops	Strategies  • DAF will collaborate with FSM R&D, SPC and other states to produce a manual of	Priority Actions  DAF will have made a formal agreement with SPC or other collaborator to identify quality standards from the pacific region	Dates By 09/30/2017
	quality standards for root crops, bananas, common market vegetables and common value added	<ul> <li>to assess for use in FSM</li> <li>Standards will have been field tested by farmers, marketers and the public for targeted produce</li> <li>By Sept. 30th 2020 standards as</li> </ul>	By 09/30/2019 By 09/30/2020
	goods	approved throughout the FSM, will have been accepted by regional and primary export targets (USDA, Asian countries).	
Obj. 4.2 To increase the volume and quality of locally produced food crops and niche market crops available to	DAF and collaborating agencies will assist farmers to increase vegetable and traditional crop production to provide	<ul> <li>DAF will have helped collaborating communities to establish a nursery facility to provide vegetable planting materials at cost to farmers and home gardens.</li> </ul>	09/30/2018
markets	more of the local food requirement and substitute for imports of foods which can be grown locally  DAF will assist farmers	<ul> <li>Based on the FAO Agriculture Census data, farmers will increase their provision of food crop supplies in Yap by 10% and will increase by 5% each following year</li> </ul>	09/30/2019
	of selected niche crop such as betel nut and pepper leaf to improve production through to harvesting by assisting in selection of planting materials, training in crop production, disease control and	DAF will apply to USPC, JOCV or other assistance agencies to secure the services of a Marketing Manager/ Advisor to support farmer efforts locally and abroad	By 05/30/2018

	quality standards.  • DAF with collaborating agencies will identify and promote 2 new niche crops for export within the 5 year plan (examples might be mangrove crabs and ornamentals)  • DAF in collaboration with FSM R&D and SPC will establish facilities to assist the export of identified crops to international markets.	<ul> <li>(either domestic or international) will be increased by 10% and by 5% each year following</li> <li>DAF in collaboration with FSM R&amp;D and support from SPC will have established an appropriate</li> </ul>	By 09/30/2019  By 09/30/2020  By 09/30/2021
		domestic and/or export sales	
ECM Chackenia C1 HF 34	 ore product value adding through effi	isiant value chains	
Objective	Strategies	Priority Actions	Dates
Obj. 5.1 To assist entrepreneurs to identify marketable goods from Yap and processes to enter	DAF will collaborate     with other     appropriate     government agencies     to identify new	DAF will have participated in and/or assisted at least one local entrepreneur to participate in one international marketing fair to promote value added products	Annually
local and overseas markets	products and processes and training needed to allow development and marketing of Yap products	<ul> <li>DAF will collaborate with appropriate local agencies to conduct at least one local exhibition of products including value added products to link local outlets to the farmers/ processors.</li> </ul>	Annually
		<ul> <li>DAF will collaborate with CRE, SPC and other agencies to provide training to assist entrepreneurs to develop or learn processes to provide or improve value added products for domestic or export markets</li> </ul>	On-going/ continual
Obj. 5.2: To improve market access for products from Yap	DAF will collaborate with national and state agencies to establish marketing avenues for Yap goods	DAF will assist local entrepreneurs to obtain authorization (business licenses, space allocations etc.) to sell value added items at markets, hotels, airport etc.	On-going
	to local and foreign markets	<ul> <li>DAF will support all efforts with shipping agencies and companies to secure priority space at affordable prices for Yap products</li> </ul>	On-going
Obj. 5.3: to support entrepreneurs for processing of agriculture products in Yap	DAF in collaboration with SBDP, COM-FSM and others will encourage entrepreneurs to enter the value added marketing chain for Yap products	DAF will work with SBDP and COM-FSM Entrepreneurship Center to develop a training program specific to agriculture products.	By 09/30/2017
Objective	engthened domestic and internation	Priority Actions	Dates
Objective	Strategies	1 HOLICY ACCIONS	Dates

Obi ( 1, 4-	- C 1	- Ob: 420	DAF will collaborate with all	On asing
Obj. 6.1: to		e Obj. 4.2 &		On-going
Strengthen	Obj.5.2		involved agencies to improve	
Domestic and			shipping outlets	
international				
transport linkages				
FSM Strategic Goal #7: En Objective		tegies	Priority Actions	Dates
Obj. 7.1: To explore		ollaboration	By Sept. 30th 2019, five farmers	By 09/30/2019
and develop an agri-			· -	Бу 09/30/2019
1 0	with YSV		with appropriate facilities will have been identified and trained	
tourism industry in		the potential		
Yap		work for agri-	to host up to 20 tourists at a time	
		ncluding	on their farms.	
	some hos		■ By January 01st 2019, information	By 01/01/2019
		oviding tours	brochures will be provided to	, ,
	and host		travel agencies to promote agri-	
	accommo	odations.	tourism opportunities	
			<ul> <li>Opportunity will be extended to</li> </ul>	Annually
		exhibits per	atoll communities through	Timuany
	•	be organized	collaboration with YapCAP and	
	on Yap p		the Councils of Chiefs	
	promote		<ul> <li>Annually 2 more farm</li> </ul>	Annually
		YSVB will be	opportunities will be assessed,	Tillitatily
		to include the	trained and included until a total	
	increasir	g numbers of	of 100 tourist can be	
	visitors.		accommodated per day	
	<ul> <li>DAF will</li> </ul>		<ul><li>One of the exhibits will be in</li></ul>	Annually
	locally p	oduced food	conjunction with World Food Day	
		example by	in October. Others will be in	
		foods used	conjunction with the harvest	
		eetings to	period for the selected crop.	
	local pro	duce only.	<ul> <li>In collaboration with CRE, hotels,</li> </ul>	On-going
			restaurants and the hospital and	On-going
			schools,	
			Schools,	
FSM Strategic Goal #8: En	nanced environme	ntal services and se	ector resilience to natural disasters and climate chan	ge
Objective		tegies	Priority Actions	Dates
Obj. 8.1: To prepare	• DAF will	participate	<ul> <li>DAF and CES agents will visit</li> </ul>	Semi-annually
farmers and general		ll national and	outer atolls to assist as needed	
public to the	internati	onal efforts to	and to provide appropriate and	
impending effects of	reduce e	missions and	salt tolerant planting materials to	
Climate Change	all factor	s leading to	limit or remediate shoreline	
		ion of the	erosion or salt intrusion	
	environn		<ul> <li>All collaborating agencies will</li> </ul>	On-going
		reduce the	continue to promote piggery	
		nental impact	waste management systems to	
		riculture in	reduce pollution and health risks	
	•	with economic	while improving soils	
	developr			0
	_	promote re-	On-going DAF will provide	On-going
		on and agro-	suitable trees to be used as	
		to protect the	productive wind shelter belts for	
		nent, build	atolls and around homes and	
	CHVII OIII	iciic, build	farms	
1				<u> </u>

	soils and reduce coastal erosion while encouraging production • DAF with EPA and FSM Quarantine will monitor pesticide use and the occurrence of pesticides in locally	By Sept. 30 <sup>th</sup> 2017 DAF will establish an MOU with UOG to test selected food samples for pesticide residues	By 09/30/2017
	marketed foods  DAF will collaborate with EPA and other national and state agencies to reduce the effects of animal waste pollution to the environment.  DAF will participate fully in the ISTs and work with FSM Quarantine to keep new threats out	On-going – DAF will lead Yap-IST in the eradication of identified invasive species and vigilance to stop potential invasions.	On-going
Obj. 8.2 To preserve and enhance Yap forests and environment	<ul> <li>DAF will promote agroforestry as the productive model for subsistence agriculture</li> <li>DAF will promote</li> </ul>	DAF nurseries will provide sufficient nitrogen fixing tree planting materials to reforest 10 acres of degraded lands per year	Annually
	forest regeneration as a model for rebuilding degraded soils  DAF will promote tree planting for urban beautification  DAF will adhere to the guidelines of the Micronesian Challenge	DAF will provide 3000 select coconut seedlings and 1500 select breadfruit seedlings at cost unless required for typhoon re- habilitation	Annually
		DAF will produce or have produced up to 6500 seedlings of nitrogen fixing trees per year to rehabilitate 10 acres per year of degraded lands	Annually

# 5.0 Responsibilities and timelines

Objectives	Target Indicator/s	Milestones	Responsible Parties	Yr.1	Yr.2	Yr.3	Yr.4	Yr.5
Obj.1.1 Yap Division of Agriculture and Forestry is adequately funded	<ul> <li>SAP submitted and approved</li> <li>PBB prepared, targets set, submitted and approved</li> <li>Reviews taken and reports submitted</li> <li>PBB is amended each year based on reviews</li> <li>Special budget requests submitted to legislature 6 months before the events</li> </ul>	By October 1st of each year and on-going the State Legislature is approached for base budget to be confirmed.	DAF/ DR&D and Yap legislature					
	<ul> <li>Priority list is prepared</li> <li>Grant writer services         are secured</li> <li>Funding requests and         proposals are         submitted in the         required format to the         appropriate funding         source</li> </ul>	'Outside' agencies approached for funds for special projects as those projects are identified and approved on an on-going basis	DAF, SPC, USDA, FAO, GEF, Embassies, World Bank, ADB, EU, Foundations, FSM R&D, MCT					
	<ul> <li>Services assessed and categorized (outside review may be necessary)</li> <li>All funded extension services are provided through CRE; private and NGO efforts are</li> </ul>	DAF is a streamlined model of efficiency by October 01, 2018	DAF, COM-FSM, PFA, SPC, CPS					

Obj.1.2 To improve stakeholder involvement and ownership of	funded by the organization involved  DAF offices and facilities are provided with alternate energy sources ie. Solar power or other proven efficiency  Staff positions reviewed, aggregated and described for best management  The DAF organizational chart is reviewed and streamlined to the proposed new structure  A list of stakeholders is identified	DAF is responsive to Stakeholder needs	DAF, YapCAP,			
DAF programs	<ul> <li>A strict agenda is set and stakeholders are invited to the one-day convention</li> <li>An outside moderator is secured</li> <li>The conference results are tabulated and included in budget considerations</li> </ul>	Stakeholder needs	COP, YWA, COT, COM-FSM, NRCS, SPC, FSM- R&D, YINEC			
Strategic Goal #2: Enhanced capac			1			
Obj.2.1: To assist in the provision of services to the agriculture and food communities	A marketing manager is in place with the Yap Farmers Assoc. recruited from PeaceCorp or JOCV and	The DAF demonstrates support for private sector, ngo, npo and other public partners	DAF, YapCAP, COP, COT, COM- FSM-CRE, NRCS, SPC, FSM-R&D, EPA,YINEC,			

	is managing all farm supplies previously delivered by DAF  A listing of all related organizations has been developed and the annual meeting has taken place with full documentation		YWA		
Obj.2.2 To improve the provision of extension outreach to the communities served	<ul> <li>The MOU is reviewed and written to reflect the needs of farmers</li> <li>Government funding for the program is effectively targeted, reviewed and reflected in reports provided to congress and other stakeholders</li> </ul>	The DAF and partner agencies will collaborate to provide effective extension and outreach to the communities served	DAF, COM-FSM- CRE, NRCS, YapCAP, COP, COT, EPA, SPC, YINEC, YWA		
	> Employment opportunities are provided to more graduates to gain experience > Extension programs are continually adapting to the needs as identified by farmers within the constraints of the USDA plan-of-work. > The portion of the budget of the CES provided through Yap				

	Performance Based Budget assessment.							
Obj.2.3 To improve the focus and effectiveness of research applied to agriculture and food sciences in Yap	<ul> <li>A research         management plan is in         place</li> <li>Research needs are         established by         stakeholders</li> <li>Research results are         readily available to all         stakeholders</li> </ul>	DAF will establish a method to identify and conduct necessary production and protection research for crops and value added produce	DAF, COM-FSM- CRE/AES, SPC, UOG, NRCS, FSM-R&D					
FSM Strategic Goal #3: Increased	sustainable production (and p	To create a research management unit under SPC to manage the necessary logistics to respond to the identified research needs of all states.	AOEA, SPC, COM-FSM/AES, NRCS, UOG, FSM-R&D	vide for househol	d nutrition, t	raditio	nal ne	eds
and cash incomes Objectives	Target Indicator/s	Milestone/s	Responsible parties	Yr.1	Yr.2	Yr.3	Yr.4	Yr.5
Obj.3.1 To assist Subsistence level farmers to transition to semi- or fully commercial	<ul> <li>Nursery seedlings are available when and where needed.</li> <li>Nursery seedlings are available for typhoon re-habilitation</li> <li>Improved varieties of preferred trees are identified, secured and multiplied</li> </ul>	DAF with YapCAP, COP and COT develop nurseries	DAF, YapCAP, COT, COP, COM- FSM-CRE			+	+	+

Obj.3.2 to support and enhance the traditional agroforestry systems of Yap	<ul> <li>Yap soils, forests and environment are improved through best management practices in agroforestry</li> <li>New or improved crops are provided in the agroforestry systems</li> <li>Yap youth are kept</li> </ul>	DAF will continue to support and enhance the agroforestry system of Yap to protect the environment, maintain the culture and improve productivity through improved management techniques and technologies.	DAF COM-FSM- CRE, NRCS, SPC, FSM-RD, MCT, YapCAP, COP, COT			
	aware of the place of agriculture in the culture  Typhoon damage recovery time is reduced due to the availability of preferred planting	DAF and collaborators will provide education and services to assist farmers to incorporate improved technologies into traditional systems  DAF and nurseries provide coconut and breadfruit	DAF, COM-FSM, NRCS			
Obj. 3.3 To assist in the improvement of traditional livestock production	materials.  Farmers have improved chickens for egg and meat production  Importation of eggs to Yap are reduced  Egg freshness is improved  Households have access to more locally produced chicken meat  Swine breeds are improved in Yap  A local feed mix is identified and is commercially	seedlings  AOEA recognizes and assists the production of pigs and chickens at the subsistence level	DAF, COM-FSM- CRE, NRCS, SPC	Chicks Pigs Feed Al training piggeries		

	<ul> <li>Streams and the lagoon are less polluted due to swine waste disposal</li> <li>More farmers have compost available from the deep-litter systems and soil fertility improves with the compost.</li> </ul>					
Obj. 3.4 To assist in the improvement of crop production in Yap	<ul> <li>Satisfactory         arrangements are in         place and samples         taken to identify         genetic materials with         salt tolerance and         acceptable qualities for         promotion in Yap         proper and he atoll         islands.</li> <li>Communities develop         capacity to multiply         preferred planting         materials, with costs         recognized and         supported to employ         one or more trained         nursery workers</li> <li>Each year at least 5 of         each selected intense         production examples         are adopted within the         highly populated areas         targeted</li> </ul>	DAF recognizes and assists in the improvement of traditional crops in Yap	DAF, COM-FSM-CRE, SPC, , FSM R&D, FAO, USDF, COP, COT, YapCAP	nurseries training	roduction	

FSM Strategic Goal #4: Increased volumes of saleable agricultural products to be marketed by the private sector into domestic and export markets								
Objectives	Target indicator/s	Milestone/s	Responsible parties	Yr.1	Yr.2	Yr.3	Yr.4	Yt.5
Obj.4.1 To establish standards of quality for the major marketable crops from Pohnpei	<ul> <li>Farmers have quality standards to guide their production</li> <li>Farmers have quality standards by which they can establish prices</li> <li>Buyers have quality standards by which they can assess offerings from farmers</li> <li>Food processors have targets and guidelines for value added product quality</li> <li>Export/Importers have quality standards by which they can assess produce before purchase</li> </ul>	DAF with SPC & FSM R&D will develop a manual of quality standards for root crops, bananas, common market vegetables and common value added goods	DAF, SPC, FSM- R&D, COM-FSM CRE					
Obj. 4.2 To increase the volume and quality of locally produced food crops available in markets	<ul> <li>Communities will provide seed, fertilizers and nursery stock at cost to farmers</li> <li>A market manager is in place to guide and</li> </ul>	DAF and collaborating agencies will increase vegetable and traditional crop production by developing community level nurseries	DAF, CRE, YapCAP, COT, COP					
	connect farmers to markets  Produce provided by farmers to market will have increased by the expected amount	DAF will support farmers of improve niche crop through selection of planting materials, quality and disease control  DAF with collaborating	DAF, SPC, UH, COM-FSM CRE, SPC, FAO, FSM R&D DAF, SPC, COM-					

	A A A A	The supply of and value of niche market crops will have increased by the expected amounts The Phytosanitary facility is in place to support exports Quality standards are in place to support export New crops and new	agencies will identify and promote 2 new niche crops for export within the 5 year plan (examples might be mangrove crabs and ornamentals)  DAFin collaboration with FSM R&D and SPC will establish facilities to assist the export of identified crops to international markets.	FSM CRE  DAF, FSM R&D, SPC					
		markets are opened to local farmers							
FSM Strategic Goal #5: More prod	uct v		lent value chains						
Objectives		Target indicator/s	Milestone/s	Responsible parties	Yt.1	Yr.2	Yr.3	Yr.4	Yr.5
Obj. 5.1 To identify marketable goods from Yap for local and overseas markets	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Local and foreign markets are aware of value added products available or potentially available from Yap Local hotels, markets and tourism are included and made aware of potential sources of value added products Local produce and value added products are available at local markets, hotels, the airport and to cruise ship tourists Training is provided in	DAF will help identify new products and processes for export of products	DAF, CPS	*	*	•	*	*

	technologies and techniques for improving the value adding chains in Yap					
Obj. 5.2: To improve market access for products from Yap	<ul> <li>Local produce and value added products are available at local markets, hotels, the airport and to cruise ship tourists</li> <li>There is an affordable outlet established to support the export of value added agricultural products from Yap</li> <li>Shipping companies are kept aware of the needs for affordable and timely shipping systems for products from Yap</li> </ul>	DAF will assist to establish shipping avenues for goods to markets	DAF, CPS, FSM R&D, shipping - lines			
Obj. 5.3: to support entrepreneurship for processing of agriculture products	<ul> <li>There is an increase in employment in Yap due to the efforts of the entrepreneurs</li> <li>There is an increase demand for agriculture products for the processing markets</li> <li>New entrepreneurs are prepared for the challenges of their new business efforts</li> </ul>	DAF in collaboration with the Development Bank, COM-FSM will encourage entrepreneurs through training programs	DAF, SBDP, COM-FSM, CPS, SPC			

FSM Strategic Goal #6: Strengthened domestic and international transport linkages								
Objective/ss	Target Indicator/s	Milestone/s	Responsible parties	Yr.1	Yr.2	Yr.3	Yr.4	Yr.5
Obj. 6.1 To strengthen Domestic and International transport linkages	<ul> <li>Yap farmers have access to local and international shipping of raw and value added products</li> </ul>	DAF will assist to improve transport access to domestic and foreign markets	DAF, DOT, CPS					
<b>FSM Strategic Goal #7:</b> Enhanced so Obj. 7.1: To explore and develop	The Yap tourism	DAF will assist YSVB and	DAF, YSVB,	First farmers				
an agri-tourism industry in Yap	industry has more	YapCAP to identify farms	YapCAP, COT,	riist lai lileis				
an agri-tourism muustry m rap	opportunities to appeal	and farm owners who have	COP,	brochure				
	to a wider variety of potential tourists  More farm families	or can develop the facilities to host and entertain tourists on their farms		On-going				
	have a source of income and potentially offer work opportunities to neighbors	DAF will develop programs to include tourists, restaurants and hotels in planned agriculture activities	DAF, YINEC, YSVB, SPC, FSM R&D FAO					
	Local produce and value added products are sought-after by tourists	DAF will promote agriculture products and value added products to tourists	DAF, YINEC, YapCAP, YSVB					
FSM Strategic Goal #8: Enhanced 6				nge				
Obj. 8.1: To prepare Yap farmers and general public to the impending effects of Climate Change	<ul> <li>Atoll residents are assisted in their response to their changing environment</li> <li>A minimum of 5000</li> </ul>	DAF will participate fully in all national and international efforts to reduce emissions and all factors leading to	DAF, SPC, FAO, FSM R&D, EPA, COM-FSM CRE, USFS					
	tree seedlings is made available for distribution on the	degradation of the environment  DAF will reduce the	DAF, SPC, COM-					

	A A	main island and to the atolls. Ideally these would be productive fruit or nut trees. All piggeries are properly built to eliminate environmental threats and provide beneficial fertilizer values Yap foods are proven free of pesticides and completely safe for human consumption. Invasive species currently in the state are recognized, listed and controlled or eradicated	environmental impact of Yap agriculture in balance with economic development DAF will promote reforestation through provision of seedlings DAF will assist in control or eradication of invasive species	FSM CRE, EPA, CPS  DAF, YapCAP, COT, COP, MCT, TNC, USFS/IPFS  DAF, CRE, EPA, USFS, PILN, SPC, FSM R&D			
Obj. 8.2 : To preserve and enhance Yap Forests and environment	A	In collaboration with YapCAP and CRE, community members are trained to manage nurseries Proven varieites of coconut and breadfruit are available to farmers and to	DAF will promote agroforestry through nursery production  DAF will provide nitrogen fixing tree seedlings  DAF will promote urban	DAF, DR&D, YapCAP USFS/IPFS, COT, COP DAF, DR&D, YapCAP USFS/IPFS, COT, COP DAF, DR&D,			
	>	communities in a natural disaster 20% Of land and 30% of reef are protected and 10 acres per year of degraded lands are rejuvenated.	tree planting  DAF will adhere to MCT guidelines	YapCAP USFS/IPFS, COT, COP DAF, MCT, TNC			

# Attachment #1 Results of the review as conducted by Poasa Nauluvula YAP JULY 26 - JULY 29 2015

Yap State Activity	Linkages to FSM Ag. Policy	Achievements
1. Office of Chief	Result Area 1;	Chief of Agriculture in place
Agriculture/Forestry	Key Strategy 1.1.2,1.2	No media production unit because of no funding
2. Agriculture Survey	Result Area 1;	There is no base line data as there is no survey conducted
	Key Strategy 1.1.1	and data available is outdated
3. Nutrition Awareness Program	Result Area 1,3,4,5,6,7,8;	Nutritionist assistant hired but rate of NCD still increase as
	Key Strategy	still more dependence on imported food – no funding
	1.1,3.1,4.1,4.2,4.3,5.1,7.1,	
	8.1	
4. Livestock	Result Area 4,8;	Breeding stock purchased for pigs, goats and poultry and
	Key Strategy	still not enough livestock farmers to meet demand
	4.1.2,4.2.6,8.1.1	
5. Farmers Association and	Result Area 2,3,4,5,6,7,8;	Charter with FAO on funding support but no funding for
Cooperative	Key Strategy	Project Manager position
	2.1,3.1,4.1,4.2,4.3,5.1,6.1,	
	6.2,7.18.1	
6. Outer island Extension Agents	Result Area 2,3,4,5,6,7,8;	Establishment of nurseries in 3 Atolls with community
	Key Strategy	improvement project with concrete taro patch established
	2.1,2.2,3.1,4.1,4.2,4.3,5.1,	but still limited planting materials, farm tools and poor
	6.1,6.2,7.18.1	communication and coordination from main office with
		outer island extension. Lack of funding support and island
		chiefly support

# 1.3.3 Summary of Problems Highlighted by States for Non-achievement of Objectives

Yap State:

No funding for personnel recruitment & equipment
Need technical assistant in some areas – e.g. agriculture survey
No funding support or mechanism
No radio communication
No island chief island support

# **Attachment #2 - Yap SWOT Analysis**

Strengths:	Weaknesses
Five year plan to guide	Poor community/coordination
Outer island extension agent implementing activities	Lack of support from community leaders
Technical support -R&D/SPC	Lack of funding
Community leaders support	Lack of transportation (sea trans)
Resources mobilization	Lack of man power
	Lack of interest in agriculture field
	Famers are women (Extension are men)
	Land issues-most privately owned
	Local chief not supporting/Cultural differences
	Decrease in of compact funding
	SAP need to be in place
	Politics
	Most farmers are seasonal or weekend farmers
Opportunities	Threats
A guide for our activity implementation	Climate change (Sea level rise, drought etc.)
Funding from Congress & Donor agencies	Invasive species
Local resources & expertise	Increase of NCD/reliance on imported food
Hiring of more extension agent officers	Decreasing of compact fund
Funding for travel	
Farmer cooperative	

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