

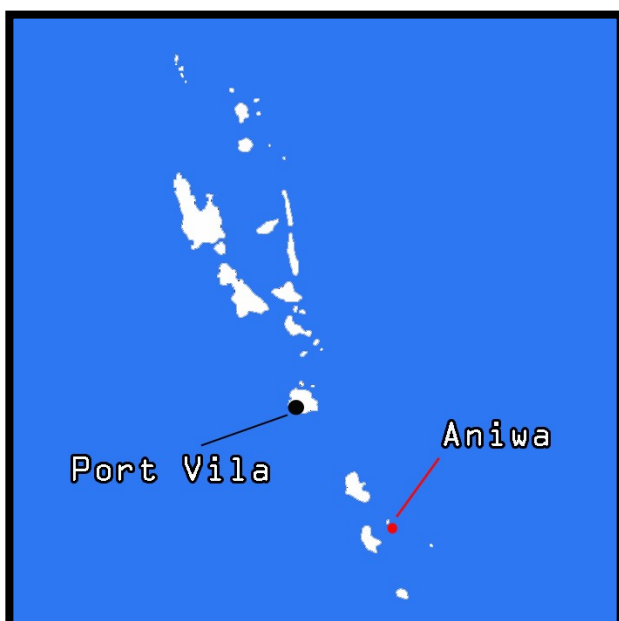
Aniwa Area Council, Tafea Province

VULNERABILITY ASSESSMENT RESULTS - AREA COUNCIL PROFILE

Community-based vulnerability assessments conducted by Corey Huber and Hamish Ture between 22.10.15 & 27.10.15. Report produced by Corey Huber.



Photo: Open ground well near Ikaukau, Aniwa



ANIWA AREA COUNCIL, TAFEA PROVINCE

REPUBLIC OF VANUATU

Results elicited from communities during vulnerability assessments conducted in Isavai village, Imatu village, and Ikaukau village in October of 2015.

This report developed with the support of the United Nations Development Program and “Adaptation to Climate Change in the Coastal Zone of Vanuatu” or “VCAP”, which is implemented by the Vanuatu national government through the Ministry of Climate Change.

TABLE OF CONTENTS

1. Methodology	Pages 1 - 2
2. Summary of Key Vulnerabilities	Page 3
3. General Information	
3.1 Population	Page 4
3.2 Organizational Structures	
3.2.1 Provincial Government / Area Council	Page 4
3.2.2 Other Government Officers	Page 5
3.2.3 Traditional Chiefly Structures	Page 5
3.2.4 NGO's	Page 6
3.2.5 FBO's	Page 6
3.2.6 CBO's & Committees	Page 7
3.2.7 VDC's	Page 7
3.3. Livelihoods	Pages 8 - 9
3.4 Services	
3.4.1 Health	Page 10
3.4.2 Education	Page 10
3.4.3 Other (Security, Airport, Banking, Communications, etc)	Page 11
4. Conveyance Infrastructure	Page 12
5. Upland Resources	
5.1 WASH	Pages 13 - 14
5.2 Agriculture.....	Page 15
5.3 Forestry (Commercial, Erosion Control).....	Page 16
5.4 Livestock.....	Page 16
5.5 Environment	Page 17
6. Coastal Resources	
6.1 Fisheries	Page 18
6.2 Environment.....	Page 19
7. Natural Disaster and Climate Change.....	Pages 20 - 21
8. Community Priorities for Development.....	Page 22
9. Annex Documents	
Vulnerability Assessment - Isavai	
Vulnerability Assessment - Imatu	
Vulnerability Assessment - Ikaukau	
Area Council Meeting Sign-In Sheet	

1. METHODOLOGY FOR VULNERABILITY ASSESSMENT

The term “Vulnerability Assessment” is sometimes used interchangeably with the term “Community Profile” within Vanuatu. Both terms refer to a participatory social engagement tool that elicits information in a group setting about communities in a comprehensive, multi-sector approach. Vulnerability assessments (or community profiles) allow for community members to identify for themselves any relevant vulnerabilities using their contextual knowledge (including those posed by climate change and natural disasters), contribute valuable baseline data about the community as well as define community priorities for development in a fairly short span of time.

There have been multiple methodologies and templates utilized by various stakeholders to conduct vulnerability assessments and community profiles within Vanuatu, however, the Department of Local Authorities (DLA) is attempting to standardize this process. The DLA approved the use of the draft assessment tool and methodology used to collect the data contained within this report (version 2.3 of the “Komuniti Profael Form”). The vulnerability assessment tool utilized was designed using the pidgin language, Bislama, and is intended for use by non-technical Ni-Vanuatu facilitators (a generalist with a secondary level of education should be able to facilitate the assessment process with minimal training). The template for the assessment tool is currently in draft format and will be further refined by the DLA with the support of UNDP and other stakeholders throughout 2016.

The information contained within this report summarizes the results collected from vulnerability assessments conducted on **Aniwa Island in October of 2015**. These vulnerability assessments were conducted in a community meeting format that was open to the general public. Data was collected from community members through the assistance of facilitators, who led several public meetings and encouraged active participation throughout the meetings by asking a series of questions and putting forth discussion points, as detailed in the “Komuniti Profael Form” version 2.3. The facilitators attempted to elicit data without influencing the results provided by the community. At times, the facilitator attempted to help community members arrive at a consensus or agree upon an



Vulnerability assessments conducted in Isavai, Imatu, & Ikaikau

approximate answer if there happened to be any disagreement or varying answers provided by the group.

The results from these community vulnerability assessments often consist of estimations, provided by community members to the best of their knowledge. While the results within this report should provide relatively accurate information about a community's vulnerabilities and resources, there may contain within this report inaccuracies as reported by the communities themselves. Data within this report should be considered as approximations made by community members (*example - population figures*).

The facilitators also utilized focus groups as part of the approach in completing the vulnerability assessments, allowing for further in-depth discussions regarding vulnerabilities and more inclusivity for local youth and women who sometimes face cultural limitations or inhibitions when expressing themselves publicly during community meetings. Focus groups utilized during this initiative included women's groups, youth groups (under the age of 25) and men's groups.

Key respondent interviews were also utilized to engage community leaders, including teachers, health workers, chiefly authorities, NGO representatives and woman's group leaders.

Relevant chiefs and members of chiefly councils were informed of this community vulnerability assessment process and its potential benefits before any data was collected and permission was granted to carry out the assessments in accordance with local governance practices. Chiefly representatives participated in the community profiling initiative at all communities consulted on **Aniwa: Isavai, Imatu, and Ikaukau**. The provincial Area Secretary for the **Aniwa Area Council, Mr. Lenon Luka**, was engaged throughout the entire community vulnerability assessment process and actively facilitated sessions at community meetings.

Notice was given to communities prior to each meeting where vulnerability assessments were conducted (public announcements were made and notices were hung on community notice boards) and the entire community was encouraged to attend, including women, youth and disabled persons, etc. Meeting attendance was encouraged regardless of land ownership claims, ethnicity, education, religion or gender. **Meetings took place in Isavai (23.10.15), Imatu (23.10.15), and Ikaukau (24.10.15)**. Although the entire community was encouraged to attend and participate in the vulnerability assessments, attendance was voluntary and some chose not to participate due to work or personal commitments.

Transect walks through the communities were also conducted by the facilitators before and after vulnerability assessments were completed. Photos were taken by the facilitator at these times.

This report will be shared with **Tafea Provincial Government Council and the Aniwa Area Council**, as well as the nationally implementing stakeholders and partners of "VCAP".

Summary of key vulnerabilities identified by communities during vulnerability assessments. Please note that further information regarding these key vulnerabilities may require input from technical experts.

LOCATION & DESCRIPTION OF ASSESSMENTS	MALE PARTICIPANTS	FEMALE PARTICIPANTS
<u>Isavai</u> - Meeting conducted in public space on 23.10.15 with representation from a geographic area including outlying "stations." Due to the presence of multiple government officers on Aniwa during this time, it was necessary to combine the communities of Isavai and Imatu for this session.	15	10
<u>Imatu</u> - Meeting conducted in public space on 23.10.15 with representation from a geographic area including outlying "stations." Due to the presence of multiple government officers on Aniwa during this time, it was necessary to combine the communities of Isavai and Imatu for this session.	12	30
<u>Ikaukau</u> - Meeting conducted in church house on 24.10.15 and included representatives from several smaller "stations" nearby. Ikaukau is the most populated village on the island, reflecting their higher participant numbers.	25	50

2. SUMMARY OF KEY VULNERABILITIES ON ANIWA

Food Security	<p>Communities throughout Aniwa have reported moderate to severe food security issues, stemming mostly from gardens yet to fully recover from Tropical Cyclone Pam and the effects from current El Niño drought cycle.</p> <p>Drought conditions are frequently experienced on this atoll island even during times not influenced by El Niño and the sandy soil is not especially fertile according to local communities. Normal staple foods have been growing poorly with the abnormally high temperature and low rainfall, resulting in poor crop yields. Pests, invasive species such as “American Rope” vine along with livestock have all resulted in damaged yields for local gardeners.</p>
Income Generation	<p>Income generation for communities on Aniwa is derived from the export of marine resources (lobster and fish), sandwoold and agricultural products (oranges). However, these livelihoods opportunities were compromised by Cyclone Pam, which damaged extensively local orange crops, sandalwood and a majority of the canoes on the island used for fishing.</p> <p>With the extremely infertile soil conditions and being so isolated from larger markets, locals find it difficult to secure enough income to meet basic needs and could be considered financially vulnerable.</p>
Water Security	<p>Water security has been deeply affected on Aniwa by the current El Niño drought cycle, strongly impacting all communities here that rely almost entirely on rain water harvesting. The island also has two hand pumps, but they are currently non-operational and contain heavy salt water and rust contamination. There is also a Japanese-funded desalinization plant near Ikaukau Village, however, the surrounding cement platform it is currently situated on was badly damaged during TC Pam. In addition, the plant’s generator require large amounts of fuel to operate and has only one small holding tank to fill with potable water.</p> <p>There have been considerable attempts to alleviate water insecurity faced by the population, none of which has proved sufficient enough so far for the population.</p>
Cyclone / Tsunami Shelters	<p>There is concern regarding the lack of disaster shelters on Aniwa Island, which is considered to be particularly exposed.</p>

3. GENERAL INFORMATION FOR ANIWA AREA COUNCIL

3.1 POPULATION

These figures have been provided by community members in consultation with Community Disaster Committees and the Provincial Area Council Secretary. Youth has been defined as under the age of 25 years, household defined by VNSO as per kitchen rather than by individual housing units. Only those currently present on **Aniwa** during time of assessment included in figures.

	Men	Women	Youth	Disability	Total Pop	Households
Aniwa (Total)	145	170	177	30	492	143
Isavai	49	52	78	14	179	53
Imatu	21	28	52	9	101	22
Ikaukau	75	90	47	7	212	68

Remarks - Aniwa Island has a relatively small population of only a few hundred people, with Isavai, Imatu, and Ikaukau being the main population centers. Ikaukau's population is the largest on the island and includes the nearby "station" Ityo. Isavai is the second most populated village on the island and includes the nearby "station" of Imasa. Locals define Imatu as covering an area starting at "Imale" at its western border and extending southward to include the village of "Itangutu."

3.2 ORGANIZATIONAL STRUCTURES

3.2.1	PROVINCIAL GOVERNMENT / AREA COUNCIL (AC)
Area Secretary	The Provincial Area Secretary for Aniwa is Lenon Luka and he was hired by Tafea Provincial Government Council in 2003.
Area Council (Governance body)	The Aniwa Area Council operates on an irregular basis. AC members met three times in 2015, largely focusing on the adverse effects of Tropical Cyclone Pam and the distribution of relief items such as food and WASH supplies. The Area Council's Secretary reported chronic budget shortages as inhibiting the AC's ability to organize activities and have regular meetings. AC members identified their priority needs as "climate proofing" their AC office, technical training from the Department of Local Authorities (DLA) on AC roles and responsibilities, and technical assistance in creating marine and upland resource management plans,
Area Council Office / Resources	Functional Area Council office constructed with permanent materials in-between the communities of Imatu and Ikaukau. Suggested improvements to the facilities by AC members included providing a flush toilets, rain catchment tank, reinforcing the roof, and installing proper cyclone shutters. Area Council members unsure whether the AC Office is adequate for use by community as a cyclone shelter as it can only hold a few dozen people. No boats or other means of transport provided to Area Secretary or AC. AC members expressed feeling under-supported financially.

3.2.2**OTHER GOVERNMENT OFFICERS**

Education	Government teachers are located at Irumori Primary School in Ikaukau Village where there is one primary school (Years 1 - 7). Due to Tropical Cyclone Pam destroying the island's francophone primary school, the Irumori Primary School has been operating as both an anglophone and francophone institution. There are several pre-schools on the island.
Health	Government supported nurse stationed at the Irotopeka Dispensary in Isavai Village.
Fisheries	The Department of Fisheries briefly sent officers to Aniwa in 2014 to survey the island and coastal waters.

3.2.3**TRADITIONAL CHIEFLY STRUCTURES**

Status and Role of Chiefly System	<p>Chiefly council on the island of Aniwa is responsible for enforcing customary rules and regulations within communities, maintaining traditional cultural practices and providing general leadership and oversight for the population. Chiefly authorities most often provide discipline and resolution for smaller criminal cases or disputes rather than the police / judicial system. Chiefly status is hereditary, with stronger links associated with the male bloodline, although leadership may be relinquished to a “steward” outside of the appropriate bloodline if approved by the proper chiefly authorities. Chiefly council consists of both males and females.</p> <p>Chiefly consent is required for any development work or activity on this island initiated by any person, regardless of birthplace.</p> <p>Chiefly bodies are also present on a tribal level, community level and island-wide level on Aniwa. The island-wide chiefly council is often the final authority, responsible for settling larger disputes, customary arrangements and preserving important traditional knowledge. Voluntary village development work was previously conducted by entire communities on Aniwa once a week or as instructed by the chiefs, but this practice has been severely constrained by several factors including the increasing participation and commitment of community members in private IGAs. Chiefs call for community meetings as required now. Recovery efforts relating to TC Pam and the current El Nino have also adjusted community work schedules.</p> <p>While there have been minor disputes over chiefly authority on Aniwa, mainly occurring between Isavai Village and Ikaukau Village, all disputes over chiefly authority are currently considered resolved and have always been settled peacefully with rulings from the island-wide Council of Chiefs and Aniwa Paramount Chief being accepted by all parties. Most disputes are focused on land ownership claims. Rarely, these claims regarding land ownership have gone through the judicial system and sometimes serious criminal cases are handled by the police.</p>
--	--

3.2.4

NGO's & INTERNATIONAL ORGANIZATIONS

CARE International	CARE International distributed agricultural tools & seeds in a food security in mid-2015. Tools were distributed via "tool banks", where they are available for communal use and accessible to local women on Aniwa. CARE International has employed a local woman from Ikaikau to help with agriculture and food security projects. CARE International plans to strengthen its community based committees that will address gender, food security and disaster risk resilience issues.
ADRA	ADRA placed rain catchment tanks in the communities of Imatu and Ikaikau in 2013 and 2014.
JICA	The Japanese government through its JICA program financially supported the construction of a cement double classroom in Imatu village.
Red Cross	The Red Cross supplied rain catchment tanks and first aid supplies to Imatu Village and Ikaikau Village in 2013 and 2014.
Live and Learn	Live and Learn led technical trainings around the island on the construction of compost toilets in 2013.
UN Women	UN Women facilitated workshops on domestic violence and gender empowerment throughout the island in 2013.
UNDP	UNDP and the Ministry of Climate Change have been implementing the Vanuatu Coastal Adaptation Project (VCAP) in all four major population centers.

3.2.5

FAITH BASED ORGANIZATIONS (FBO's)

Isaivai	The largest faith-based organization is the John Frum denomination with approximately 65 members and a permanent structure. Also present are the Presbyterian Church with approximately 50 members, followed by Living Water, Apostolic, and Seventh Day Adventist (SDA) Church. All FBOs in the community have permanent structures, although several sustained considerable damage during Tropical Cyclone Pam in March, 2015.
Imatu	A majority of this community attends the Presbyterian Church with approximately 50 members. Other denominations include Seventh Day Adventist (SDA), Apostolic, and Living Water, all of which have less than 20 members.
Ikaikau	The largest FBO in the Ikaikau area is the John Frum denomination with approximately 105 members and 1 church building made from permanent materials. This is followed by the Glorious Church that has around 50 members and a permanent church house. Smaller FBO's include the Apostolic Church, Seventh Day Adventist (SDA), and Presbyterian Church, each with less than 40 members and permanent shelters. These church networks have organized associations for women & youth members.

3.2.6

COMMUNITY BASED ORGANIZATIONS (CBO's) & COMMITTEES

Isaivai	Active committees and organized groups in Isavai include a chiefly committee, women's groups affiliated with individual churches, youth groups affiliated with individual churches, a water committee, Community Disaster Committee (CDC), and a recently formed Village Development Committee (VDC).
Imatu	Active CBOs include a chiefly committee, women's group affiliated with individual churches, youth groups affiliated with churches, water committee, Community Disaster Committee (CDC), and a recently formed Village Development Committee (VDC).
Ikaukau	Active community organizations include a chiefly committee, youth groups affiliated with churches, women's group affiliated with churches, water committee, primary school committee, Community Disaster Committee (CDC), and a recently formed Village Development Committee (VDC).

**Only CBO's & committees considered functional and active by community members are listed in this report (example, if a village committee was formed for water security purposes but it does not hold regular meetings or perform any recent tasks, it is not cited).*

3.2.7

VILLAGE DEVELOPMENT COMMITTEES (VDC's)

VDC's	<p>Three functional VDC's as recognized by DLA are present on Aniwa. The communities of Isavai, Imatu, and Ikaukau all established working VDCs as of October, 2015.</p> <p>A separate yet closely related committee is that of the Community Disaster Committees comprised of sectoral representatives such as village youth, chiefs, women, health workers & teachers. These CDC's were recently set up through the work of Director of the Prime Minister's Office, Benjamin Shing, during an El Niño assessment mission in 2015, however their scope of work is concentrated on disaster resilience, relief coordination and climate change adaptation and does not address a full spectrum of development issues.</p>
--------------	--

**VDC's are voluntary technical working groups comprised entirely of locally-based membership that address community oriented, multi-sector development issues and attempts to utilize representation from all existing organizational structures present within a community- such as chiefly systems / NGO's / FBO's / CBO's / Committees, such as those listed in previous tables above. VDC's are often used for planning or monitoring and evaluation purposes.*

VDC's are flexible, voluntary working groups whose membership comes from EXISTING organizational structures. VDC's should not be viewed as an additional organization within a community but rather as a collection of representatives from a community's existing structures, providing a wide-range of skill sets and the knowledge base necessary to create an informed technical working group familiar with local context and conditions.

3.3 LIVELIHOODS

3.3.1	INCOME GENERATION
Main Sources of Income	<p>The largest source of income generation for communities on Aniwa is derived from the export of marine resources (lobster, crab, fish, etc) and agricultural products (oranges) to Port Vila, Efate. Other Income Generating Activities (IGAs) include the sale of local handicrafts, tobacco, and kava. There is no substantial tourism presence on Aniwa, with the majority of tourists in TAFEA Province traveling to Tanna Island and Aneityum Island.</p> <p>Other important IGAs may include the sale of sandalwood and participation in seasonal work overseas, such as the Australian SWP and New Zealand RSE schemes. The sale of sandalwood on Aniwa is seasonal and regulated by the Department of Forestry.</p>
Alternative Sources of Income	<p>A limited number of guesthouses are maintained on Aniwa, but they are typically occupied by visiting government officers and development partners. The sale of agricultural produce is very limited following TC Pam, although the demand for fresh produce is high. The profits from agricultural activity are perceived by locals as minimal when compared with potential profits to be gained from seasonal sandalwood. Kava is sold occasionally, but due to limited quantity there are no ready-made kava bars. Kava from the island of Tanna is imported to Aniwa twice a week via Air Vanuatu. There is no active fishing project selling or exporting fish on Aniwa although there is a plentiful supply. Seafood is exported on a regular basis to hotels and restaurants in the capital city, Port Vila. There is a low supply of cattle on Aniwa, however there are many pigs.</p> <p>Regular salaries are paid to government employees of the local primary school and staff of Air Vanuatu.</p>

LIVELIHOODS INVENTORY

3.3.2	Isaivai	Imatu	Ikaukau	TOTAL
Stores (selling basic commodities)	6	3	4	13
Cooperatives	1	2	0	3
Guest Houses / Bungalows	1	0	1	2
Fuel Sales	3	2	5	10
Boat Transport	5	1	3	9
Ready-Made Kava Bars	0	0	0	0
Markets (fresh produce, fish, etc)	0	0	0	0
Seamstress / Tailor	0	0	0	0
Baker (either local bread or "gato")	2	2	2	6

3.3.3

MISCELLANEOUS - LIVELIHOODS

Outside Investors	There have been several attempts over the past few years from outside investors to purchase land on Aniwa (Isavai, Imatu), but as of yet no land owners or Chiefs have allowed such a transaction. A private company based out of Australia has attempted to establish a hotel on the southern tip of the island, however it has yet to be approved.
Employment Abroad	There are reportedly 4 community members that are currently working abroad in either New Zealand or Australia to seek seasonal employment. There are no locals currently working abroad on fishing boats or cruise ships. Communities report that with limited employment opportunities on the island, there is a large incentive to seek employment overseas.
Cooperatives	There is 1 functional cooperative in the community of Imatu, supported through UNDP's VCR project, that officially launched in 2015. There have been attempts to establish a Women's Saving and Loan, but it has yet to operate.
Markets	There are no locally based markets on Aniwa with the exception of sporadic produce and fish markets during special occasions. Occasionally, fruits and other food goods are sold between locals as well at this time. However, TC Pam destroyed most of the area's circus trees and the island has yet to fully recover.
Value Added / Exports	There is currently no income derived from value-added processing of resources on Aniwa Island.

3.4 SERVICES

3.4.1

HEALTH

Health Facilities	<p>Irotopeka Dispensary is stationed in Isavai Village and is comprised of one building and employs a Nurse. Dispensaries are able to assist mothers with child birth, remove teeth, provide medicines including antibiotics, share family planning methods and provide general treatment for mild to moderate medical conditions. The Irotopeka Dispensary does not have access to a boat to transport sick patients and to perform health related work on the island. Serious medical cases are referred from the dispensary to the hospital in Lenekel, Tanna or even directly to the hospital in Port Vila, Efate.</p> <p>There are no other healthcare facilities currently on Aniwa.</p>
Health Concerns / Common Illnesses	<p>NCD's such as heart disease, hypertension and diabetes are reportedly growing in incidence among community members and are a common cause of death on Aniwa. Health workers believe this is related to a shift away from traditional diets, lifestyles and heavy tobacco use especially by males on Aniwa.</p> <p>TAFEA Provincial Health regularly coordinates with the WHO to initiative malaria-eradication spray programs throughout Aniwa, helping contribute to the very small number of malaria or dengue fever cases in recent years.</p>

3.4.2

EDUCATION

Pre-Schools	There are 3 pre-schools on Aniwa Island. These schools are funded entirely by school fees paid by parents each term.
Primary Schools	Irumori Primary School in Ikaukau is both anglophone and francophone, has 72 students ranging from Year 1 - 7, and is staffed by four government teachers and two unregistered teachers from the community. The buildings on the compound are constructed of permanent materials and in moderate condition. Due to Tropical Cyclone Pam destroying the island's francophone primary school, the Irumori Primary School has been operating as both an anglophone and francophone institution.
Secondary Schools	There are currently no secondary schools located on Aniwa. Students continuing their education past Year 7 are required to leave the island.
Technical Schools	There are no rural training centers (RTC) or technical training schools located on Aniwa. Occasionally community members travel to Port Vila, Efate or Luganville, Santo to enroll in technical programs as well.
Continued Education	Students wishing to further their education and who have passed their exams often leave Aniwa to study at secondary schools on Futuna, Tanna, or Efate islands. Currently there is three locals attending university at USP in Fiji.

Flights	The national airline, Air Vanuatu, operates flights to Aniwa twice a week currently. This is the primary way of transporting light cargo and passengers to and from Aniwa due to the infrequent nature of ships servicing the island. Chartered flights from Air Taxi, Belair Airways, and Air Safari will occasionally service the island for private flights. Aviation Vanuatu Limited has partnered with the Public Works Department to select a local man responsible for providing regular maintenance to the airstrip to ensure safety of arriving planes.
Shipping	Large cargo ships service Aniwa very irregularly, often only once every two months. Ships are essential to transport heavy cargo such as building materials and store supplies. There are access points for ships to provide service and unload cargo near the communities of Ikaukau and Imatu, although Ikaukau is typically the primary village that is serviced.
Financial	The National Bank of Vanuatu and Western Union have no satellite branches based on Aniwa. There is a high demand for these services due to the influx of money arriving to Aniwa because of remittances and seasonal IGAs.
Communications	<p>Digicel and TVL companies provide network coverage to limited areas, however, neither has towers placed on the island. Locals must rely on receiving signal from either company's towers on nearby Tanna Island. Network access throughout the island is not reliable and locals must walk moderate distances in search of network reception. TC Pam badly damaged the TVL telecommunication towers on Tanna, effectively blacking out network on Aniwa until repairs were completed in late-2015.</p> <p>There are no FM radio stations available, but medium wave radios can pick up Radio Australia. Radio Vanuatu is frequently not accessible on Aniwa. Very few households own medium wave radios and tend to rely primarily on mobile phone communications to receive information.</p> <p>A basic internet connection is only available through the mobile phone carriers, with locals reporting improved performance by the TVL and Digicel networks.</p> <p>Some small communities without access to communications networks on Aniwa must walk up to one hour to access network coverage, thus they report great concern about their isolation and inability to receive important updates including early warnings for cyclones or tsunamis.</p>
Security	With no police or VMF presence on the island, local security is left to each community's respective Chief and Council of Chiefs. Should an incident occur that requires the presence of police, police have been contacted previously to intervene on the Chiefs' behalf.
Community Halls or Meeting Venues	There are no community halls or community buildings intentionally designed to house public meetings on Aniwa. Otherwise, public meetings are held in classrooms, at community schools, church buildings or underneath the shade of banyan trees.

4. CONVEYANCE INFRASTRUCTURE ON ANIWA

Roads / Vehicles	<p>There is currently only one main operational vehicular road on Aniwa, running from the airport to the tip of the island near Ikaikau Village. However, this main road is in need of serious repair and often times becomes impassable during heavy rainfall. As there has been very little proper maintenance work the past several years, the roads have deteriorated in condition. There is one vehicle based in Ikaikau that is utilized to transport people and wharf cargo to the airport over very short distances within the immediate area only. This vehicle frequently experiences mechanical problems.</p> <p>Community members report that private companies and the Public Works Department has surveyed roads on more than one occasion in the past decade to prepare for repair/maintenance work.</p>
Footpaths	<p>Walking along the main truck road and upland footpaths on Aniwa is the primary means of transportation on the island. Every week, hundreds of villagers on Aniwa utilize these thoroughways to travel between communities. As the airport is a main service on the island, locals from other villages routinely walk up to an hour or two to access this location. Considering the limited roadways available on Aniwa, there are often times due to climatic activity when these paths become inaccessible. The most frequently used footpath on Aniwa is located between the communities of Imatu and Ikaikau. The terrain and accessibility of the footpath varies greatly from place to place, without most habituated areas being flat with small hills. The topography of these footpaths may include lengthy sand beaches, coastlines of volcanic stone, and steep cliffs near the island's western coast.</p> <p>These footpaths are natural walking trails and have not been maintained or developed with improved materials, drainage, etc. At times, portions of the footpath become inaccessible in wet or rainy conditions. Villagers report that there have been discussions with PWD about providing community based contracts for villagers to maintain footpaths, but they are unsure as to the status of this proposed initiative.</p>
Bridges / Water Crossings	<p>There are no upland or coastal water sources on the island, however, during heavy rainfall many areas of the island become flooded and footpaths/roadways impassable. Locals identified several portions of road that are priorities for them, especially the portion between Imatu Village and the airport as it becomes easily flooded.</p>
Wharfs	<p>There is 1 proper wharf on Aniwa, however, it was badly damaged during Tropical Cyclone Pam. A piece of cement was broken and has since been blocking the main loading dock. Fortunately, both much of the island has sandy beaches that allow for ships to be pulled ashore or anchored nearby for small fiberglass boats to transport goods.</p>
Boats	<p>Travel by boat is not a typical means of transportation between communities on Aniwa. Boat travel is also dependent upon having the financial ability to pay for a charter trip / fuel as well as accommodating weather. There are 9 boats currently providing transport services on Aniwa, including trips to the nearby island of Tanna. Most communities have access to a nearby location where boats can be pulled ashore and stored safely.</p>

5. UPLAND RESOURCES ON ANIWA

5.1 WASH (WATER AND SANITATION, HYGIENE)

5.1.1 Inventory of Drinking Water Sources by Community

(counting functional sources only, not those in need of repair)

	Isavai	Imatu	Ikaukau
1) Gravity Supply System	0	0	0
2) Poly / Fiber-Glass Rain Tanks	14	14	38
3) Above Ground, Cement Rain Tanks	10	10	10
4) Enclosed Ground Wells (Cement bottom)	1	0	3
5) Open Ground Wells (No cement)	1	1	1
6) Powered Pumps (Generator / Solar)	0	0	0
7) Hand Pumps	0	0	0
8) Coastal springs (water directly accessed from a spring located on the immediate coastline)	0	0	0
9) River / spring (water directly accessed and used at a river or spring, no use of pipes)	0	0	0

5.1.2

	WASH
Brief Summary of Water Resources by Community	<p>Isavai, Imatu, and Ikaukau all rely heavily on rain catchment tanks. There are a multitude of above ground cement rain tanks and fiber-glass rain tanks, however, many of them are in need of repair/maintenance. Isavai Village and Ikaukau Village both have enclosed ground wells with cement bottoms, but are also in need of repair/maintenance. There are a handful of hand pumps on the island, but none are currently operational. Upon testing one hand pump, contamination of salt water and rust was immediately identified.</p> <p>There are several small “stations” surrounding each of the major population centers that do not have access to any source of potable water and must transport water containers long distances. The full area reported water security vulnerabilities related to substantial increases or decreases in rainfall. All of Aniwa expressed concerns regarding sanitation and waste management practices, as well as low access to running water and soap. Rubbish is most often burned or buried, with occasional pieces being thrown into the bush or ocean.</p>
Toilets	<p>The communities of Isavai, Imatu, and Ikaukau all primarily utilize bush toilets or open pit latrines, with the exception of a handful of VIP and water seal toilets. All three communities expressed a concern regarding sanitation and waste management practices, requesting technical training from government partners.</p>

Water Committees	All three communities have functioning water committees, with Isavai, Imatu, and Ikaukau asking households to contribute towards a monthly maintenance fee.
Hand-washing Access (Access to Water + Soap)	Access to running water and soap at individual households is poor throughout Aniwa due to limited access to potable water. Almost no bush toilets or open pit latrines had regular access to running water and soap.
Waste Disposal	Most rubbish is disposed of by burning it in large open pits or burying it in the ground. Community members discussed rubbish occasionally being strewn throughout the bush and near the coastline.
Access to Community Rain Catchment Tanks	Isavai, Imatu, and Ikaukau communities have access to several rain catchment tanks with the majority available for public use. Isavai and Imatu both have 11 public rain tanks, where as Ikaukau has 23 public rain tanks. Each community also has a handful of private rain tanks.

5.1.3 Improved Toilet Inventory

	Isavai	Imatu	Ikaukau
Flush Toilet	0	0	0
Water-seal Toilet	0	0	5
Compost Toilet	0	0	3
Ventilated Improved Pit Toilet (VIP Toilet)	10	5	15

**Majority of improved toilets located at community buildings such as schools, church housing or guest houses.*

5.2 AGRICULTURE

5.2.1	AGRICULTURE
Primary Crops	Primary food staples on Aniwa include manioc, taro, yam and kumala while the economic staple crop is orange.
Garden Space	Due to low population density, there is ample space for gardening. Aniwa is one of the smallest islands in Vanuatu, but has a small population as well. However, several locals have gardens that can be almost an hour's walking distance from their households.
Agricultural Sales	Currently, the sale of agricultural goods is extremely low. Due to low crop yields and water security issues, the sale of local produce and root crops is irregular. Kava must typically be imported from Tanna before being sold for local consumption, typically transported via Air Vanuatu or by small fiberglass boat.
Food Security	Food security concerns within Aniwa are currently reported by community members as a matter of great concern. The ongoing recovery from Tropical Cyclone Pam in March of 2015 has been greatly hindered by the current El Nino event, leading to low crop yields and water security issues. Due to TC Pam destroying a substantial amount of local gardens, several months of government-supported food aid were required before agricultural output should have returned to safe levels. However, due to a lack of adequate rainfall as well as abnormally high temperatures and intense sunshine, food security concerns within Aniwa have been exacerbated.
Invasive Species	It was reported that American Rope is a large problem on the island, often contributing to poor crop yields in gardens. There may be multiple species of American Rope on the island as locals reported varying descriptions.
Pests	Post-TC Pam, communities have been reporting an increase in small insects and snails adversely impacting their gardens. All there main population centers reported pests consuming their manioc, island cabbage, taro, and kumala. Community members were greatly concerned for their citrus trees as they rely heavily on them for income.
Diet (Use of Store-Bought Foods)	There are approximately 13 small stores throughout Aniwa that sell a variety of imported food goods. Popular items include rice, tin fish/tuna, flour, sugar, salt, and chips/crisps. However, store inventory may fluctuate regularly due to a lack of cargo ships regularly servicing the island.

5.2.2 Agriculture Inventory

	None Available	Some Available	Plentiful
Coconuts		X	
Kava	X		
Coffee	X		
Vanilla	X		
Pepper (black or white)	X		

	None Available	Some Available	Plentiful
Cacao	X		
Fruits		X	
Vegetables		X	

5.3

FORESTRY

Summary of Forestry Activities	There are limited forestry activities on Aniwa, with the exception of seasonal sandalwood sales. Isavai Village reported there was one previous forestry project in the area, but it has since ceased operations.
Primary Species	Primary species of wood include White Wood, Mahogany, Blue Water, Mangrove, and Sandalwood.
Nurseries	There are currently no functioning nurseries on Aniwa, with the exception of a CARE International supported nursery in Ikaikau.
Timber Sales	The seasonal sale of Sandalwood is a primary source of income for many households on Aniwa.
Erosion Control	All of Aniwa reported serious issues of erosion along main footpaths, especially during inclement weather. Technical assistance through DEPC, the Department of Agriculture, and the Department of Forestry has been requested to help introduce species of vetiver grass and trees to help combat the problem.

5.4 LIVESTOCK

5.4.1 Livestock

Inventory	Chickens	Ducks	Goats	Pigs	Cattle
Isavai	1000	10	25	500	0
Imatu	300	0	1	100	0
Ikaikau	300	3	50	200	1
TOTAL: ANIWA	1600	13	76	800	1

5.4.2 Livestock Summary

Summary of Livestock Activities	The main sources of livestock on Aniwa are chickens and pigs, followed by goats and ducks. It should be noted that there are very limited supplies of wild livestock that are often consumed by locals. CARE International began implementing multiple food security projects on Aniwa in mid-2015 including community poultry projects in Ikaikau Village.
--	---

Geography / Description of Environment	Aniwa from the airport (near Imatu Village) to Ikaukau Village is mainly flat with small hills. However, the topography to the western coast nearest Ikaukau Village include steep cliffs and requires descents along rugged terrain. Much of the island has a sandy coastline, including a large lagoon located on the island's eastern half.
Pollution	Environmental degradation due to increasing levels of household rubbish was expressed as a serious concern for communities. All of Aniwa reported an inability to safely dispose of chemical waste, such as batteries or motor oil. Increasing amounts of flies, pests, and rats were also linked to improperly disposed of garbage, raising health concerns among communities.
Persistent Organic Pollutants (POPs)	Persistent organic pollutants (POPs) are relatively scarce on Aniwa due to a low level of industrialization and development. An exception would be a moderate presence of DDT, used for mosquito control.
Water Catchment Areas	The communities of Isavai, Imatu, and Ikaukau all rely exclusively on rain catchment tanks as their primary source of drinking water. In times of drought or emergencies, there is an open ground well near the community of Ikaukau that locals will also use for drinking water, however it is perceived as unsafe.
Conservation Areas	There are no official Marine Protected Area (MPA) located on Aniwa. However, several miles of marine coastline and reef are protected by the Council of Chiefs in Isavai, Imatu, and Ikaukau. The lagoon is also a protected area, with local fishing being blocked.
Access to Traditional Building Materials	TC Pam greatly decreased access to traditional building materials, especially bamboo, natangura, and coconut leaves.
Access to Firewood	An abundance of fallen trees following TC Pam has allowed for easy access to firewood throughout Aniwa.
Erosion Related to Logging, Buildings	As there are currently no commercial logging activities on Aniwa, erosion related to such activities is low. Individual community members utilize chain saws for private logging, but the impact is minimal.
Invasive Species	It was reported that American Rope is a large problem on the island, often contributing to poor crop yields in gardens. There may be multiple species of American Rope on the island as locals reported varying descriptions.
Protected Species	The communities of Isavai and Ikaukau have turtle monitors associated with "Vanua Tai Risos Monitor," responsible for encouraging sustainable resource management.
Mining	Community members often mine local sand beaches for use in making bricks for construction projects.
Management Plan	No individual communities on Aniwa currently have management plans, but a strong interest was expressed to receive technical assistance in drafting one in all three population centers. Imatu Village expressed having a management plan currently, but that they felt it was ineffective.

5.5.1 Environmental Resource Inventory

	None	Some	Many
Coconut Crabs		X	
"Nawempa"			X
Flying Fox		X	

	None	Some	Many
Fresh Water Prawns	X		
Fresh Water Fish	X		

6. COASTAL RESOURCES ON ANIWA

6.1

FISHERIES

Inshore Fisheries Summary	Many community members fish along the coastline or go diving with spearguns, typically yielding substantial results. It is not uncommon for fish and varied seafood to be a primary source of protein for families. A large challenge is the preservation of fresh seafood, especially if departing planes are unable to carry excess cargo due to weight restrictions. Often times this leads to fresh fish being consumed rather than sold or being spoiled by waiting in transit too long.
Offshore fishing (Trolling or deep sea fishing)	Small fiberglass boats will often troll between communities while transporting goods or people. Deep sea fishing is less common due to a lack of large shipping vessels.
Inshore Fishing Methods	Most fish are caught via speargun, however some fishing poles and traditional spears are also utilized.
Fisheries Exports / Sales	Large amounts of fish and crustaceans are exported weekly to Port Vila for use by hotels and restaurants. Common shipments include lobster, crab, prawn, and fish.
Preservation	Isavai and Ikaukau both have one private ice box available for food preservation, but are often too expensive for most families to use. Other preservation methods, such as solar drying, are not common. The island's cooperative also has 1 icebox for public use.
Fish Aggregating Devices (F.A.D.'s)	There are currently no Fish Aggregating Devices (FAD) on Aniwa, however a strong interest was expressed for installation of one.
Resource Monitors	The communities of Isavai and Ikaukau have turtle monitors associated with "Vanua Tai Risos Monitor," responsible for encouraging sustainable resource management.
Coral Reef	All three communities expressed concerns regarding the declining health of their coral reefs, highlighted by a whitening of color and lack of plentiful fish.
Crown of Thorns Starfish (COTs)	Isavai, Imatu, and Ikaukau all reported an increase in the number of Crown of Thorns Starfish, leading to concerns about poor reef quality.
Ciguatera	Every community had regular concerns regarding local fish and Ciguatera poisoning.
Sea Cucumber	While there is not an abundance of sea cucumber found on Aniwa, recently Ikaukau Village received private fishermen exporting large quantities to Port Vila
Traditional Conservation Methods	Chiefs will often "block" certain areas of a community's shoreline for conservation and food security purposes. These areas are typically marked by wooden posts along the coastline.
Marine Protected Areas (MPA's)	There are no official Marine Protected Area (MPA) located on Aniwa, however, all three communities expressed an interest in having one.

6.2

ENVIRONMENT - COASTAL RESOURCES

Marine Pollution	Marine pollution is typically limited to small pieces of rubbish or benzine/fuel used for small fiberglass boats. There are no major industrial areas on the island that contribute to marine pollution.
Coastal Erosion	All three main population centers experienced erosion along coastlines, in particular footpaths and the vehicular road. The footpaths linking Ikaukau Village and local gardens often experience serious erosion due to flooding during rainy season.
Sedimentation	Areas surrounding the lagoon have been reported as having large deposits of sediment in shallow waters, often attributed to shifting sands after strong storms.
Dugongs	There are reported sightings of at least two dugongs frequently swimming in coastal waters of Aniwa.
Turtles	The communities of Isavai and Ikaukau have trained a few community members associated with the "Vanua Tai" Resource Monitor Program, to lead awareness about the need to protect sea turtle populations. All three communities reported consuming approximately ten turtles per year.
Mangrove Ecosystems	There are limited stretches of water mangroves along the coastline between near the lagoon, airport, and Imatu Village.
Sand mining	Community members often mine local sand beaches for use in making bricks for construction projects.

6.3 COASTAL RESOURCE INVENTORY

**While resources differ by community - results indicated below are inclusive of results from every community within Aniwa AC.*

	None Available	Some Available	Plentiful
Reef Fish			X
Bottom-Fish (Pule, etc)		X	
Sea Cucumber		X	
Trocha shellfish		X	

7. NATURAL DISASTER & CLIMATE CHANGE - ANIWA

7.1

NATURAL DISASTER

Tsunami / Storm Surge / Cyclone	<p>There is a high level of risk associated with tsunamis and storm surges, as demonstrated by TC Pam. All three population centers on Aniwa are closely situated along coastlines and are only a few meters above sea level. During TC Pam, the large portion of all three communities were flooded.</p> <p>Cyclones pose a tremendous risk to Aniwa, with most buildings constructed of local materials and villages having no formal disaster shelters. Cement houses or classrooms are used in emergency situations, but are often ill-equipped and lacking proper toilets, water tanks, or lights. TC Pam wreaked extensive damage to structures and gardens throughout the area and most communities have yet to fully recover.</p>
Volcanic Activity	There is currently no volcanic activity effecting Aniwa, with the occasional exception of ash being blown over from Yasur Volcano on Tanna.
Flooding	Extensive flooding may occur during inclement weather or strong storms. Schools, churches, private homes, and footpaths are often impacted. A lack of adequate drainage often exacerbates the impact of heavy flooding.
Erosion to Infrastructure	Most upland and coastal footpaths experience erosion due to heavy rainfall, poor drainage, and substantial amounts of livestock (mostly pigs) utilizing the same throughways.
Landslides	Community members mostly identified inland footpaths and gardens along hillsides as most impacted by landslides. Several sections of steep cliff on the island's western coast were also reported as prone to landslides.
Drought	Due to the current El Nino phenomenon, all of Aniwa is experiencing a severe drought. The island as a whole is more heavily impacted than most due to their exclusive reliance on water catchment tanks.
Past Disasters of Note	Tropical Cyclone Pam (2015), Tropical Cyclone Ivy (2004), and Tropical Cyclone Uma (1987) were all noted as climactic disaster of significance. Communities consider wild animals, mainly pigs and rats, destroying gardens as a disaster as well.
Community Disaster Committees (CDC's)	There are functional Community Disaster Committees (CDCs), supported by CARE International, in all three major population centers on Aniwa.
Disaster Plan	Community disaster plans are the responsibility of individual CDCs and Chiefs.

7.2

DISASTER WARNING

Radio	All of Aniwa utilized radio communications for disaster warnings.
CDC's	CDCs were an integral mechanism for spreading information and warning.
TVL / Digicel SMS Warnings	Every major community received SMS alerts from TVL or Digicel prior to TC Pam and continue to receive "Yumi Redi" SMS alerts from NDMO and SCA.
Family or friends from Port Vila	Friends and family in Port Vila, Tanna, and Santo regularly reach out to community members regarding possible inclement weather.
Traditional Knowledge	Older members of the area were regarded as having traditional knowledge capable of providing advanced warning of upcoming weather event.
No warning	No communities reported having members unable to be warned of pending disasters.

7.3

DISASTER SHELTER

Status of Disaster Shelter by Community	There are currently no proper disaster shelters on Aniwa, however during emergencies communities will utilize any cement buildings available.
Additional Community Buildings Used as Shelter	Ikaukau Village has use of a permanent double classrooms as an evacuation centers as well as church buildings and a health dispensary. Other disaster shelters typically include traditional nakamals as there are very few cement structures. Locals living in small “stations” either migrate to the larger population centers or often don’t have safe shelter during emergencies/disasters. The local Area Council office building is also utilized.
Typical Building Materials Used / Condition - Housing	Most buildings used as disaster shelters have cement floors and walls, typically glass/bamboo windows, and metal roofs. Conditions are moderate to poor as maintenance of most buildings is expensive and materials not easily accessible.

7.4

CLIMATE CHANGE

Sea Level Rise Observed?	Yes, sea level rise has been observed in all three communities as indicated by receding beaches.
Sea Level Rise Affecting any Valued Infrastructure?	Currently there have been no reports of valued infrastructure being affected by sea level rise. However, there are a small number of private homes near the coastline in Ikaukau that have had to be relocated. Furthermore, the lagoon is considered a valuable asset and has been experiences sea level rises.
Water Security - Impacted by Climatic Effects?	Yes, all of Aniwa reported that significant increases or decreases in rainfall adversely effect their water security. The current El Niño cycle has increased water security concerns for the entire island.
Food Security - Impacted by Climatic Effects?	Yes, climatic events such as El Niño and tropical depressions / cyclones have greatly impacted Aniwa’s food security. The current El Niño related drought has hindered local gardens from fully recovering from TC Pam.

7.5 OBSERVED CLIMATIC CHANGES BY COMMUNITY (OVER LAST 20+ YEARS)

	Yes	No
Increased Rainfall (total amount per year)?		X
Increased Occurrence of Drought?	X	
Increased Temperature?	X	
Seasonal Changes? (timing of rainy / dry season)	X	
Bleaching of Coral Reef?	X	
Salt water intrusion of drinking water?	X	

8. COMMUNITY SELF-IDENTIFIED PRIORITIES FOR DEVELOPMENT - ANIWA

**At the conclusion of each Vulnerability Assessment, communities were asked to divide into focus groups and identify two leading priorities for development for their entire community, not necessarily for the membership of their focus group alone. This activity allowed for group discussion of vulnerabilities and for the prioritization of needs. Communities were encouraged to identify actions that could be taken themselves instead of being wholly dependent on external donors.*

8.1	No of Participants	ISAVAI
Women's Focus Group	25	<u>Improved water security</u> - support installation of hand or solar water pump <u>Market house</u> - support an Income Generating Activity (IGA) in the form of a market house that could also serve as a cyclone shelter
Men's Focus Group	49	<u>Disaster shelter</u> - need for a safe location where community members can evacuate during a cyclone or tsunami warning; may function as a community hall building as well <u>Improved water security</u> - requesting five 10,000L water tanks
Youth Focus Group	23	<u>Vocational training</u> - provide technical training related to vocational opportunities <u>Fishing project</u> - support an Income Generating Activity (IGA) related to fishing/marine resources

8.2	No of Participants	IMATU
Women's Focus Group	20	<u>Poultry project</u> - support an Income Generating Activity (IGA) related to poultry <u>Tailoring project</u> - support an Income Generating Activity (IGA) related to sewing/tailoring
Men's Focus Group	21	<u>Disaster shelter</u> - need for a safe location where community members can evacuate during a cyclone or tsunami warning; may function as a community hall building as well <u>Improved water security</u> - requesting rain tanks
Youth Focus Group	5	<u>Improved water security</u> - requesting maintenance of existing water pumps and support for desalinization plant <u>Improved food security</u> - placement of community owned boat to support local fishermen

8.3	No of Participants	IKAUKAU
Women's Focus Group	15	<u>Market house</u> - support an Income Generating Activity (IGA) in the form of a market house that could also serve as a cyclone shelter <u>Vocational training</u> - provide technical training related to vocational opportunities, specifically business management
Men's Focus Group	26	<u>Improved infrastructure</u> - "climate proofing" of footpaths and wharf <u>Disaster shelter</u> - need for a safe location where community members can evacuate during a cyclone or tsunami warning; may function as a community hall building as well
Youth Focus Group	20	<u>Market house</u> - support an Income Generating Activity (IGA) in the form of a market house that could also serve as a cyclone shelter <u>Disaster shelter</u> - need for a safe location where community members can evacuate during a cyclone or tsunami warning; may function as a community hall building as well