

# Torres Islands Area Council, Torba Province



## VULNERABILITY & NEEDS ASSESSMENT RESULTS - VCAP SITE

*Community-based vulnerability & needs assessments conducted by the Department of Local Authorities, facilitated by Noel Jacob, Ben Tabi, Daniel Lolvin, Masden Bani and Matthew Hardwick from 15.08.16 to 27.08.16.*



PHOTO: YOUNG MOTHER CARRYING WATER ON TOGA ISLAND



### TORRES ISLANDS, TORBA PROVINCE

#### REPUBLIC OF VANUATU

Results elicited from communities during vulnerability & needs assessments conducted on Hiu, Tegua, Metoma, Loh & Toga islands in August of 2016.

This report developed with the support of the UNDP 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 Adaptation.

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# 1. METHODOLOGY FOR VULNERABILITY AND NEEDS ASSESSMENTS

The Vulnerability and Needs Assessment (VNA) is a participatory social engagement tool that elicits information in a group setting about communities in a comprehensive, multi-sector approach. VNA's allow for community members to identify for themselves any relevant vulnerabilities using their contextual knowledge (including those posed by climate change and natural disaster), contribute valuable baseline data about their 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 collect multi-sector community information through VNA's 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. The vulnerability and needs assessment tool utilized 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.

The information contained within this report summarizes the results collected from vulnerability & needs assessments conducted on the **Torres Islands in August of 2016**. These vulnerability and needs 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 2.6. 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 approximate answer if there happened to be any disagreement or varying answers provided by the group.

The results from these community VNA's often consist of estimations, provided by community members to the best of their knowledge. While the results contained within this report should provide relatively accurate information about a community's vulnerabilities and resources, there may contain some inaccuracies as respondents are community members and not technical specialists. Information is also obtained primarily in a community meeting format and not a door to door survey. 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 and needs assessments, allowing for further in-depth discussions regarding vulnerabilities and priorities for community development with 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 and woman's group leaders. Sector leaders of existing groups such as chiefly councils, women's groups, youth groups, water committee, etc. were assembled together to form a Village Development Committee (VDC), and also contributed information within this VNA report.

Relevant chiefs and members of chiefly councils were informed of the VNA 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.

(Map of Torres Islands)

MTH



Chiefly representatives participated in the community profiling initiative at all locations consulted in the **Torres: Hiu, Tegua, Metoma, Loh and Toga islands**. The provincial governance representative who helped to lead the VNA team was the **Acting Area Secretary for the Torres Area Council, Mr. Daniel Lolvin**. Another community level stakeholder involved in the VNA facilitation was the field officer employed by the project "*Adaptation to Climate Change in the Coastal Zone of Vanuatu*" or **VCAP (Vanuatu Coastal Adaptation Project)**, the **VCAP Site Coordinator, Mr. Masden Bani**. From the DLA, leading the VNA mission was **Principal Planning Officer, Mr. Ben Tabi**; the **DLA VCAP Coordinator, Mr Noel Jacob**; and the **Community Adaptation Planning Specialist, Mr. Matthew Hardwick**.

Notice was given to communities prior to each meeting regarding participating in the VNA's (public announcements were made and notice was passed via HF radio using an established communications network established by the Red Cross) and the entire community was encouraged to attend, including women, youth and people with disabilities. Meeting attendance was encouraged regardless of land ownership claims, ethnicity, education, religion or gender. **Meetings took place on Hiu Island (17.08.16); Tegua Island (19.08.16); Metoma Island (20.08.16); Toga Island (22.08.16); and Loh Island (25.08.16).**

Due to relatively smaller population sizes and previously having formed Island Development Committees where villages report and cooperate in activities in unison, the VNA's were conducted on an island-wide basis, at times grouping several villages together. Transect walks through the communities were also conducted by the facilitators before and after VNA's were completed. Photos were taken by the facilitators at these times.

This report will be shared with **Torba Provincial Government Council as well as the Torres Island Area Council**, along with nationally implementing stakeholders and partners of VCAP.

<b>VULNERABILITY &amp; NEEDS ASSESSMENT LOCATION</b>	<b>Male Participants</b>	<b>Female Participants</b>
<u>Hiu Island</u> - Meeting held in Yegevigemene Village on 17.08.16.	29	22
<u>Tegua Island</u> - Meeting conducted in Lirak Village on 19.08.16.	8	11
<u>Metoma Island</u> - Small informal meeting and discussion with the one household living on the island on 20.08.16 to collect vital information within VNA.	5	4
<u>Toga Island</u> - Meeting conducted in Litau Village on 22.08.16.	45	48
<u>Loh Island</u> - Meeting conducted in women's market house on 25.08.16 in Lunghariki Village.	24	22



*(Woman's focus group during Vulnerability and Needs Assessment on Loh Island)*

## 2. SUMMARY OF KEY VULNERABILITIES AT TORRES ISLANDS AC

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

<p><b>Water Security</b></p>	<p>Across the Torres Islands, there are major water security vulnerabilities reported by locals who indicate that improving access to clean &amp; safe water is a top priority. Recent tests in 2016 indicated that underground water sources from wells across the Torres Islands were contaminated by fecal matter and unsafe to consume without boiling or treatment first. A majority of households preferred to use rain water harvesting for drinking purposes but drought conditions exacerbated by a strong El Niño event in 2016 had depleted many water reserves at the time of the VNA.</p>
<p><b>Coconut Crab Resource Management</b></p>	<p>Every island in the Torres Group (<i>with the exception of Metoma Island</i>) reported a decrease in the population of coconut crabs. Villagers on Toga Island report that coconut crabs are now extremely difficult to find on the island. Villagers from Loh and Hiu islands regularly travel to Tegua to harvest coconut crabs to sell.</p> <p>The consumption and collection of coconut crab reportedly continues locally within the Torres Islands during the restricted season. A quota to limit the number of coconut crabs allowed for export or consumption on the Torres each year is regularly surpassed according to the local resource monitor. Locals regularly harvest more crab than can be allocated onto the Air Vanuatu flights due to weight restrictions for freight on the small aircraft. In late 2016, a charter flight was arranged to collect coconut crabs for sale after the close of the season. While there are protected areas in the upland and coastal areas where coconut crab harvest is forbidden on Hiu, Tegua and Loh islands - locals report that many people violate these restrictions and secretly harvest from these areas due to the financial incentive of collecting crabs.</p> <p>Further restrictions on the harvest of coconut crab or resource management plans will not be viewed as sustainable by locals if a comparable and alternative source for income generation is not provided. Improved management plan for coconut crab is needed to preserve this valuable resource for future harvest in Torres Islands AC.</p>
<p><b>Alternative Sources of Income Generation</b></p>	<p>To alleviate stresses on coconut crab stocks and provide households with alternative sources of income generation - the promotion of other income generating activities is required. The training of local stakeholders and promotion of the following activities would help to provide financial security and reduce potential vulnerabilities: planting of forestry species, small-scale livestock projects, planting of kava or other cash crops, installation of F.A.D.'s and ice fish-preservation units to promote small-scale fisheries activities, fish-drying, etc.</p>
<p><b>Pests and Drought Affecting Food Reserves</b></p>	<p>Food security has recently become more of a challenge as reported by local communities due to recent impacts of a strong El Niño drought event. Many communities report that the on-going drought has resulted in their reducing their yield from the gardens and animals / pests / diseases have negatively affected food reserves as well.</p> <p>As there is relatively a small amount of store-bought food in the area due to infrequent shipping and low income generation, locals reported that they were very concerned with food security on the Torres Islands.</p>
<p><b>AC Office for Torres Islands AC</b></p>	<p>The AC does not currently possess an office for the Area Secretary to work from or a boat for transport purposes between the Torres Islands. Travel is prohibitively expensive when hiring a boat and has been limited by the AS to accompanying missions funded by NGO's such as Red Cross.</p>
<p><b>Communications Networks</b></p>	<p>It is often challenging to receive clear mobile phone reception in some locations. On Hiu and Metoma islands, there is no mobile phone network access at all. Maintain support to HF radio program in order to relay disaster and marine warnings and push to improve mobile phone reception to most populated village in Torres on Toga Island.</p>

### 3. GENERAL INFORMATION FOR TORRES ISLANDS AC

#### 3.1 POPULATION

These figures have been provided by community members in consultation with local Red Cross Volunteers and the Provincial Area Council Secretaries. 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 **Torres** during time of assessment included in figures.

	Men	Women	Youth	Disability	Total Pop	Households
<b>TOTAL</b>	474	570	510	22	1044	174
<b>Hiu</b>	152	172	162	6	324	48
<b>Tegua</b>	40	48	35	3	88	14
<b>Metoma</b>	5	4	2	0	9	1
<b>Loh</b>	105	125	111	5	230	48
<b>Toga</b>	172	221	200	8	393	63

**HOUSEHOLDS (HH's) PER SUB-COMMUNITY—** 1.) Hiu Island : Yegevigemene- 20 HH's; Yaqwana- 14 HH's, Yowia- 5 HH's; Tototose- 9 HH's 2.) Tegua Island : Lirak- 8 HH's, Litetra- 4 HH's, Tenue- 2 HH's; 3.) Loh Island: Lunghariki- 24 HH's, Rinua- 15 HH's, Telaklak - 5 HH's; Linua - 4 HH's; 4.) Toga Island : Litau- 55 HH's, Liqwal, 8 HH's.

#### 3.2 ORGANIZATIONAL STRUCTURES

##### 3.2.1

#### PROVINCIAL GOVERNMENT / AREA COUNCIL

<b>Area Secretary (AS)</b>	<p>The Acting Area Secretary for the Torres Area Council during the VNA and since late 2015 was Mr. Daniel Lolvin (who was also the Business Rep on the Torres Islands Area Council (AC) before his appointment as Acting Area Secretary). While responsible for the entire Area Council, Mr. Daniel Lolvin primarily resides on Toga Island. <i>*Note- As of January 2017, Mr. Thomas Simon from Loh Island has been appointed as the Area Secretary for the Torres Islands AC. Mr. Thomas Simon has a background working on climate and disaster related initiatives at both GIZ and Red Cross and was educated at USP.</i></p>
<b>Area Council (AC)</b> (Governance body)	<p>The members of the Torres Islands Area Council (AC) report that their AC was ineffectual at the time of the VNA. The last reported AC meetings at the time of the VNA was once in 2010 at Metoma Island (financially supported by the Red Cross &amp; Tourism Department) and in 2014 in Toga when the present AC was established and its membership was selected. The current AC membership's term is from 2014 to 2018.</p> <p>At the time of the VNA, 2 out of the 5 AC members were not able to serve on the AC. The Youth representative had relocated to Santo Island, while the Business Rep had become the Acting Area Secretary (<i>making him ineligible to vote</i>).</p> <p>The Acting Area Secretary reported that due to complications involving the closure of the AC's bank account due to actions by the former Area Secretary - there has been no financial support allocated directly by Torba Province to the AC for approximately 2 years. A meagre amount of revenue raised through business license taxes and elsewhere has been used to sustain payment for the Acting Area Secretary, as authorized by the provincial government. The Acting Area Secretary reported limited communications with the provincial office. All AC members stated a desire to take part in capacity building or training exercises, as many did not understand their role as AC members.</p>

<b>AC Offices / Resources</b>	<p>There is no AC office currently in use at the Torres AC. However, previously a community building was available for use in Lunghariki Village on Loh Island that would easily accommodate an AC office, but due to ground disputes and reported non-payment by government stakeholders, private family members have reclaimed this building and now reside within it. A church building has been offered as a temporary space in Lunghariki Village on Loh Island by the Anglican Church. Using this church building as a temporary space has been approved by the Torres Islands AC, however, some building materials may be required to allow the building to become a functional work space.</p> <p>The AC does not currently possess a boat for transport purposes between the Torres Islands and travel is prohibitively expensive and has been limited by the AS to accompanying missions funded by NGO's such as Red Cross. <i>*Note- the VCAP (Vanuatu Coastal Adaptation Project) has stated its intention to purchase a boat in early 2017 to use for project implementation and it should be available for use by the AS and AC for work matters without charge.</i></p> <p>Acting AS, Mr. Daniel Lolvin reported that he did not have access to a laptop computer or other office equipment to use while working within the Torres Islands AC.</p>
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### 3.2.2

## OTHER GOVERNMENT OFFICERS

<b>VCAP Site Coordinator</b>	The field based coordinator hired under the Ministry of Climate Change for the Vanuatu Coastal Adaptation Project (VCAP) is Masden Bani, from Rinua Village on Loh Island, helping to facilitate VCAP activities with local communities as part of the five year CCA project.
<b>Police</b>	There is one member of the Vanuatu Police Department stationed on Loh Island.
<b>Education</b>	Government teachers are located on Loh Island where there is a centre school (Years 1 - 8); and on Toga and Hiu islands at 2 primary schools (Years 1 - 6).
<b>Health</b>	There is a government supported nurse, a nurse aid and a malaria technician at the Loh Clinic on Loh Island.

### 3.2.3

## TRADITIONAL CHIEFLY STRUCTURES

<b>Status and Role of Chiefly System</b>	<p>The traditional Ni-Vanuatu chiefly system is the prominent governance system in the Torres Islands. The islands of Loh and Toga report that their chiefly systems are effective and operate on a regular basis. Both of these islands have allocated a specific day of the week to perform community work as directed by chiefly leadership or to hold meetings to resolve community problems.</p> <p>However, the islands of Tegua and Hiu report that their chiefly systems are inactive and chiefly meetings are arranged occasionally as demand requires.</p> <p>There are no disputes over chiefly titles within the Torres Island group.</p>
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## 3.2.4

**NGO'S & INTERNATIONAL ORGANIZATIONS**

<b>UNDP</b>	The Vanuatu Coastal Adaptation Project (VCAP) is facilitated by the Vanuatu government with support from the United Nations Development Programme (UNDP) and is just starting to support adaptation to climate change by communities in late 2016, specifically regarding resource management.
<b>Red Cross</b>	At the time of the VNA, the Red Cross activities in the Torres had been phased down as funding support had for their programs had ceased. However, Red Cross had a large presence on the Torres islands over the past 5 years in organizing communities into Island Development Committees (IDC's), supporting disaster planning and risk reduction activities, establishing a highly successful communications program utilizing HF radio devices and supporting water security measures. Red Cross had previously paid certain locals to act as staff during implementation of their program's activities however funding for this had stopped by 2016 and a few local people continued to serve the community in a voluntary role on behalf of the Red Cross.
<b>Save the Children</b>	Save the Children supports the operations of Aid Posts on Hiu, Tegua and Toga islands, and training for local community members to serve as Village Health Workers. P&O cruise line company partnered to support Aid Post on Hiu Island.
<b>World Vision</b>	Supports pre-school operations and training opportunities for teachers throughout the Torres.
<b>Pacific Yacht Ministry</b>	Has supported missions to the Torres Islands to provide eye-glasses and medical treatment to villagers in the isolated communities.
<b>French Embassy</b>	Provided an ice-machine on Loh Island that apparently was never functional (perhaps to technical issues). Supported water security measures for the household on Metoma.
<b>FAO, UNDP &amp; UNICEF</b>	From 2011 - 2015, the joint UN agency project facilitated by the Department of Local Authorities (DLA) supported the population on Loh Island in a disaster risk reduction initiative as part of the "Vanuatu Community Resilience" project or VCR to install a cooperative for improved financial security, provide additional rain water tanks, fund trainings and maintenance of HF radio systems and improve food security through agriculture initiatives.
<b>Canadian International Development Agency (CIDA)</b>	Carried out a project in collaboration with Secretariat of the Pacific Regional Environment Program (SPREP) on Tegua Island starting in 2001 to relocate a vulnerable coastal community inland and assist with water resource management as part of the regional Capacity Building for the Development of Adaptation Measures in Pacific Island Countries (CBDAMPIC) program for climate change adaptation.

## 3.2.5

**FAITH BASED ORGANIZATIONS (FBO'S)**

<b>Anglican</b>	Almost the entire population adheres to the Anglican faith, with permanent church houses on Toga (2), Loh (2), Tegua and Hiu.
<b>SDA</b>	There are 6 individual members of the Seventh Day Adventist (SDA) faith on Hiu island, where participants worship at a shelter or at a member's house.

*Note- These church networks have organized associations for women & youth members (among the only formally organized woman's and youth groups on the islands are through FBO's).*

## 3.2.6

**COMMUNITY BASED ORGANIZATIONS (CBO's) & COMMITTEES**

<b>Hiu</b>	Organized committees and groups on Hiu Island include a chiefly committee, women's groups affiliated with the Anglican church, youth groups affiliated with the Anglican church, an Aid Post committee, a water committee, a school committee, a Community Disaster Committee (CDC), a church committee and a business house committee.
<b>Tegua</b>	Tegua Island has an organized chiefly committee, a woman's group affiliated with the Anglican church, an Aid Post committee, a church committee and a pre-school committee.
<b>Metoma</b>	As the island consists of only 1 household, this family joins with existing committees and CBO's on nearby Tegua Island.
<b>Loh</b>	Active committees and organized groups on Loh Island include a chiefly committee, women's groups affiliated with the Anglican church, a woman's club, youth groups affiliated with the Anglican church, a health committee, a water committee, a school committee, a Community Disaster Committee (CDC), a church committee, a "Turtle Monitor" committee and a tourism committee.
<b>Toga</b>	Committees organized on Toga Island include a chiefly committee, women's groups affiliated with the Anglican church, youth groups affiliated with the Anglican church, an Aid Post committee, a Community Disaster Committee (CDC), a water committee, a primary school committee, a pre-school committee, a road construction committee, an airport maintenance committee and a boat transport committee.

*\*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)**

<b>VDC's</b>	<p>There are 4 *Village Development Committee's present within the Torres Islands AC, which are referred to locally as Island Development Committee (IDC's). These VDC's were initially established with support from the Red Cross in order to organize existing community groups while implementing activities relating to disaster risk reduction and water security.</p> <p>Villagers from Hiu, Tegua, Loh and Toga all reported that the VDC's functioned well during the period of time the Red Cross programs were implemented until approximately the end of 2014. Throughout 2015 and much of 2016, the VDC's had ceased to assemble or serve any function in the Torres Islands AC.</p> <p>In August of 2016, these VDC's were reassembled by due to a VCAP mission involving the facilitation of community-based climate change adaptation planning activities.</p>
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*\*VDC's are voluntary technical working groups comprised entirely of locally-based membership that addresses 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

<p><b>Main Sources of Income</b></p>	<p>Income generation in the Torres is particular challenge as the island group is isolated in such a remote area located at a considerable distance from markets in Santo, Port Vila or elsewhere. Communities in the Torres indicated that a majority of their household income is made through the sale of coconut crabs and lobster. However the sale of coastal resources is moderately regulated and depends on the availability of weekly flights to facilitate the transport of lobster and coconut crabs. Coconut crabs are also sent to market via cargo ship approximately once a month while in season. Without any preservation via ice-machine or otherwise, lobster is entirely dependent upon the availability of flights as they quickly spoil if transported by ship.</p> <p>The sale of copra and agricultural produce also constitutes a large portion of household income in the Torres Islands, especially for communities on Toga Island where coconut crab populations have gone down. The sale of copra and agricultural produce is also dependent on shipping options and inclement weather occasionally prevents locals from having access to ships. Currently a government subsidy provides for monthly shipping.</p>
<p><b>Alternative Sources of Income</b></p>	<p>There are 18 small household stores within the Torres Islands AC, where food and basic household commodities are sold. Regular salaries are paid to government officers and staff of Air Vanuatu and Western Union. There are no reported tourism activities, and most visitors in the Torres Islands at local guest houses are government or NGO officers. There are no active fishing projects or associations here and extremely small sale of livestock.</p> <p>Income generation is extremely difficult and depends heavily on the sale of coconut crab and lobster. There are few alternative sources.</p>

#### LIVELIHOODS INVENTORY 3.3.2

	Hiu	Tegua	Metoma	Loh	Toga	TOTAL
<b>Stores</b> (selling basic commodities)	3	2	0	4	9	18
<b>Cooperatives</b>	0	0	0	1	1	2
<b>Guest Houses / Bungalows</b>	2	1	0	5	1	9
<b>Fuel Sales</b>	3	2	0	3	5	13
<b>Boat Transport</b>	3	1	1	2	1	8
<b>Truck Transport</b>	0	0	0	0	0	0
<b>Ready-Made Kava Bars</b>	0	0	0	1	0	1
<b>Markets</b> (fresh produce, fish, etc)	0	0	0	0	0	0
<b>Seamstress / Tailor</b>	0	1	0	1	0	2
<b>Baker</b> (either local bread or "gato")	0	0	0	0	0	0

3.3.3

**MISCELLANEOUS - LIVELIHOODS**

<p><b>Outside Investors</b></p>	<p>There was no reported investment or payment of land in the Torres Islands by outside investors.</p>
<p><b>Employment Abroad</b></p>	<p>At the time of this assessment, communities reported that there were no locals performing seasonal work in New Zealand or Australia in an attempt to generate income.</p> <p>In 2013, a Ni-Vanuatu man traveled to the Torres Islands AC with the former provincial Area Secretary and collected large sums of money for registration purposes to work abroad. However, locals have never heard from this individual again and now believe that it was a scheme or con in order to take their money.</p>
<p><b>Cooperatives</b></p>	<p>There are 2 cooperatives in the Torres group, on Hiu and Loh islands. Locals report that these cooperatives are working well.</p>
<p><b>Markets</b></p>	<p>While there is a market house building on Loh Island in Lunghariki Village, there are no market activities that take place within the Torres Islands currently. With limited disposable income and a small, scattered population - it would be challenging to operate a local market house here. Also there were food security vulnerabilities reported at the time of this VNA, which would limit the ability of locals to sell excess food.</p>
<p><b>Value Added / Exports</b></p>	<p>Locals from the Torres Islands report that they do not take part in value-added activities for the purpose of income-generation - with the exception of producing copra for export.</p> <p>Agricultural produce such as taro, bananas and manioc are occasionally exported by ship. Export of coconut crab by plane and ship takes place regularly. Export of lobster also takes place by plane but locals report that without ice-boxes, often their catch goes to waste if there are flight delays or cancellations.</p>



*(Locals from Torres vying for available space on Air Vanuatu flight to export coconut crab and lobster)*

<p><b>Health Facilities</b></p>	<p>The Loh Clinic has a Nurse, Nurse Aid and a malaria technician working within the facility. The health staff are able to assist mothers with childbirth in emergency situations, provide medicines including antibiotics, share family planning methods and provide general treatment for mild to moderate medical conditions. A majority of the maternal and serious health cases from across the Torres are referred to the Loh Clinic.</p> <p>Hiu, Tegua and Toga islands each have an Aid Post serviced by a voluntary Aid Post Village Health Worker. These Aid Posts are very small buildings and can provide basic assistance such as cleaning and dressing wounds or sores, sharing basic non-prescription medicines, distributing condoms and leading health awareness initiatives. Serious cases are referred from Aid Posts to the Loh Clinic. These Aid Posts have been supported with training and medicine by Save the Children.</p> <p>The Aid Post on Hiu appears to be organized and operating well. However, the Aid Post on Tegua Island has been under construction over a period of several years, with locals complaining that the correct building materials for the Aid Post have yet to be provided. Women on Tegua indicated that they must travel to Loh Island for even minor health concerns. Torba Health officials are reportedly aware of the problem, and the building seems to be almost complete but is lacking walls and a door, along with furniture. The Aid Post on Toga Island was not clean or organized upon inspection during the VNA and appeared to operate infrequently.</p> <p>An expatriate who lives on the island of Gaua, referred to locally as “Dr. Mark”, has been providing professional medical care to sick patients and using a privately owned airplane to evacuate patients in critical condition to receive treatment at the hospital in Luganville, Santo. His assistance is part of a church mission work outreach, it is not a private business. Communities on Toga have cleared their own runway for Dr. Mark to land his private airplane and to provide medical care - and the airport on Loh Island is also capable of receiving his visits. On Hiu Island, the community is discussing the possibility of clearing ground to allow for an airstrip for Dr. Mark to provide service.</p>
<p><b>Health Concerns / Common Illnesses</b></p>	<p>NCD's such as heart disease, hypertension and diabetes are reportedly infrequent on the Torres Islands. Consumption of locally produced foods has been more commonplace on the Torres rather than store-bought goods, although the availability of rice and tinned foods is increasing due to monthly subsidized shipping visits.</p> <p>There are no cases of malaria on the Torres as these islands have been selected to take part in a malaria eradication program.</p>

<p><b>Pre-Schools</b></p>	<p>There are 2 pre-schools on Hiu Island, 1 on Tegua Island, 1 on Loh Island and 1 located on Toga Island. These schools are funded by school fees paid by parents each term.</p>
<p><b>Primary Schools</b></p>	<p><b>Martin Primary School</b> on Hiu Island is anglophone, has 72 students ranging from Year 1 - 6, and is staffed by 2 government teachers. The buildings on the school compound are in good condition. The condition of the school buildings is moderate to good. <b>Bagavegug Primary School</b> on Toga Island is anglophone, has 92 students ranging from Year 1 - 6 and is staffed by 1 government teacher and 2 unregistered teachers from the community. The school buildings appear to be in good condition.</p>
<p><b>Centre Schools</b></p>	<p><b>Robin Memory Centre School</b> is an anglophone school on Loh Island with 87 students ranging from Year 1 - 8, staffed by 4 government teachers and 1 unregistered teacher from the community. The buildings on the school compound are in good condition.</p>
<p><b>Secondary Schools</b></p>	<p>There are no secondary schools in the Torres Islands</p>
<p><b>Technical Schools</b></p>	<p>There are no technical schools in the Torres Islands</p>

<b>Continued Education</b>	<p>Anglophone students wishing to further their education and who have passed their exams often attend secondary school in Sola on Vanua Lava Island. Some youth opt to enroll in technical courses at the Torgil Rural Training Centre on Ambae Island,</p> <p>Currently there are around 8+ locals who were raised on the Torres Islands who are currently attending university level courses at the University of the South Pacific or elsewhere.</p>
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### 3.4.3

## OTHER SERVICES

<b>Airport</b>	<p>There is one airport on Loh Island that receives flights approximately twice a week through Air Vanuatu. There is an air strip located on Toga Island, that is only frequented by “Dr. Mark’s” aircraft for medical purposes. The communities on Hiu stated a desire to build an airstrip, but there has been no work to start the clearance of an air strip so far.</p>
<b>Shipping</b>	<p>Historically shipping has been very infrequent on the Torres Islands, but a government subsidy has allowed a cargo ship to service the islands on a monthly basis over the past several years.</p> <p>It is very difficult during poor marine conditions for ships to access communities on Toga Island. During rough seas, sometimes ships attempt to access the side of the island opposite from highly populated Litau, which has led to locals attempting to cut a vehicular road to assist with the transport of goods such as copra that may be transported to or from the ships. On Hiu, Tegua, and Loh islands, access for cargo ships is improved due to relatively safer anchorage points as compared to Toga Island and the presence of sandy beaches.</p>
<b>Financial</b>	<p>There is no National Bank of Vanuatu branch or any other bank operating within the Torres Islands AC. Due to the isolation of the Torres Islands, this causes difficulty for salaried officers such as teachers and health workers. The closest bank is located in Sola on Vanua Lava Island. Western Union has been established on the islands for approximately 3 years now, providing a valuable service allowing locals to receive payment for exported goods like coconut crab &amp; lobster, and pay for goods from vendors to be transported to the Torres by ship or plane.</p>
<b>Communications</b>	<p>Mobile phone reception has only been made possible in the Torres recently in the past 3 years. It is often challenging to receive clear reception in some locations. On Hiu and Metoma islands, there is no mobile phone network access at all. On Tegua Island, receiving phone reception from Lirak Village requires walking 30 minutes to a sandy beach where a TVL signal is occasionally available while Litetra Village enjoys more reliable access. The TVL tower is located on Loh Island and provides access to locals here. On Toga Island, there is no reception in the most populated village of Litau, however the Digicel network is available within a 30 minute walk uphill where reception from a tower on Gaua Island may be accessed; accessing the TVL network requires over an hour walk to Liqwal.</p> <p>A HF radio network established with support from the Red Cross is one of the only successful and functional HF radio programs currently in operation in Vanuatu and is relied upon heavily for communications purposes, especially in communities on Hiu, Tegua and Toga where phone access is unavailable nearby. The Red Cross office in Port Vila is able to relay messages about cyclone and marine warnings via HF radio and messages are passed between the islands. There is an HF radio in the Red Cross offices located Hiu, Tegua, Loh and Toga islands. Medium wave radio reception is poor and Radio Vanuatu is not clearly received. Radio programs from the Solomon Islands have better reception on the Torres Islands.</p> <p>A basic internet connection is only available through the mobile phone network of TVL, although the speed is reportedly very slow.</p>

<b>Security</b>	A police officer has been stationed on Loh Island for approximately 3 years. However, the officer states that due to expense of boat transport & hire, he is rarely able to travel to other islands within the Torres group. The Vanuatu Coastal Adaptation Project is planning to purchase a boat in early 2017 to be used during project implementation that should be shared with the Area Council, so the police officer would be able to use this boat ( <i>although he may be required to pay for fuel for charter trips</i> ).
<b>Community Halls or Meeting Venues</b>	Tegua is the only community with a community hall. The construction of the community hall on Tegua was supported by the climate change adaptation program funded by CIDA in collaboration with SPREP, when a coastal community was relocated to Lirak to reduce vulnerabilities to rising sea levels and tidal waves.  There are not other functioning community halls in the Torres Islands. On Loh Island, a women's market house is often used for community meetings.

#### 4. CONVEYANCE INFRASTRUCTURE IN TORRES ISLANDS AC

<b>Roads / Vehicles</b>	There are no vehicles on the Torres Islands or vehicular roads in operation within the Torres Islands AC.  However, on Toga Island, villagers have begun to clear a path for the purpose of constructing a vehicular road to the other side of the island. Approximately 1 - 2 kilometers have been cleared by chainsaw and hand-tools already. Toga islanders claim there is a big need for a road to support the transport of copra and goods from the monthly shipping visits. A committee has been formed in order to organize the voluntary work involved in clearing a potential roadway. A local politician has encouraged the local community to clear the pathway initially and villagers are requesting assistance from PWD to create a workable roadway. Villagers stated that they are uncertain how a vehicle could be purchased and maintained properly if the road was constructed.
<b>Footpaths</b>	There are footpaths in every community used to access gardens or create shortcuts between households. These footpaths appear to be in good condition with little to no erosion or flooding affecting access to services.  However, the footpath on Toga Island that provides access to a water source known as the "black rock", involves a steep and dangerous incline that has heavy erosion. Periodically locals are forced to walk to this water source when other sources run dry during drought conditions.
<b>Bridges / Water Crossings</b>	There are no bridges or water crossings for the footpaths located within the Torres Islands AC.
<b>Wharfs</b>	There are no wharfs located within the Torres Islands AC.
<b>Boats</b>	Travel by boat is the only inter-island mode of transport available within the Torres Islands AC. Marine conditions vary throughout the year and occasionally the ocean swell is too severe to allow for safe travel between the islands.  Although rare, villagers have died at sea while traveling between islands via small motor boat. Having a spare engine, life jackets and respecting warnings about marine conditions has been advocated heavily by the Red Cross and provincial authorities.  The price of boat hire and fuel on the Torres Islands is relatively very expensive compared to other islands. Occasionally there are fuel shortages in the Torres as well.

## 5. UPLAND RESOURCES IN TORRES ISLANDS AC

### 5.1 WASH (WATER AND SANITATION, HYGIENE)

#### 5.1.1 Inventory of Drinking Water

##### Sources by Community

	Hiu	Tegua	Metoma	Loh	Toga	TOTAL
1) Gravity Supply System	1	0	0	0	0	1
2) Poly / Fiber-Glass Rain Tanks	16	9	2	19	16	62
3) Above Ground, Cement Rain Tanks	0	0	0	3	3	6
4) Enclosed Ground Wells (Cement bottom)	0	0	0	0	0	0
5) Open Ground Wells (No cement)	6	0	0	0	3	9
6) Powered Pumps (Generator / Solar)	0	0	0	0	0	0
7) Hand Pumps	0	0	1	0	0	1
8) Coastal springs (water directly accessed from a spring located on the immediate coastline)	6	0	0	0	0	6
9) River / spring (water directly accessed and used at a river or spring, no use of pipes)	0	0	0	0	0	0

\*Note- inventory includes functional water sources only, not those in need of repair or not utilized for drinking purposes.

#### 5.1.2

### WASH

#### Brief Summary of Water Resources by Community

Across the Torres Islands, there are major water security vulnerabilities reported by locals who indicate that improving access to clean & safe water is a top priority. Recent tests in 2016 indicated that underground water sources from wells across the Torres Islands (*with the exception of Metoma Island*) were contaminated by fecal matter and unsafe to consume without boiling or treatment first. At the time of the VNA, local communities were unaware that these water sources had tested positive for contamination. A majority of households preferred to use rain water harvesting for drinking purposes but drought conditions exacerbated by a strong El Niño event in 2016 had depleted many water reserves at the time of the VNA. Uncovered ground wells and coastal springs are used frequently throughout the islands for cooking, washing and bathing- and also for drinking purposes during emergencies.

On **Hiu Island**, the gravity feed water supply system was only working in Yaqwana Village at the time of the VNA. In 2009, a gravity feed water supply system was installed in Yegevigemene Village but it reportedly stopped working in 2013. Many households report that they drink water from well without boiling the water first. When rain harvesting sources and gravity feed sources are depleted, local depend on ground wells and coastal springs. Two hand pumps here are reportedly broken. Villagers from the smaller populations on **Tegua** and **Metoma** islands report that they usually have an adequate supply of drinking water available (*rain water harvesting is the preferred source*) but that underground water is boiled and consumed as necessary. Water security measures have been supported in the past on these islands by CIDA and the French Embassy. On **Loh Island**, severe water shortages have been reported by locals. The CDC here has paid for a boat to travel to Toga Island and collect spring water during a recent extreme drought. UNICEF has supported some water security measures here. Finally, on **Toga Island** villagers report having to walk over an hour each day during drought conditions to access a coastal spring at the “black rock” site.

School closures due to water shortages have occurred on Hiu, Loh and Toga Islands.



<b>Toilets</b>	A vast majority of toilets on the Torres Islands consist of uncovered, open pit latrines referred to locally as “bush toilets”. The only improved toilets on the islands include 7 water-seal toilets reported among the islands of Hiu, Loh, and Toga.
<b>Water Committees</b>	Locals from the islands of Hiu, Loh and Toga reported that they had formed water committees in the past but that these committees had largely become inactive in recent years after the Red Cross ceased much of its programmed activities in the area. Fees for water maintenance of community water sources are reportedly not collected.
<b>Hand-Washing Access</b> <i>(Access to Water + Soap)</i>	<p>On Hiu and Tegua islands, locals report that they have easy access to a clean water source and soap to utilize for hand-washing located nearby toilets and kitchens. They reported that Red Cross had advocated the benefits of hand-washing as part of a WASH program in the Torres.</p> <p>Islanders from Loh and Toga islands report that they do not have easy access to a clean water source and soap for hand-washing close to toilets and kitchens. They reported that despite WASH initiatives promoted by the Red Cross, often soap and clean water are not conveniently available near local toilets and kitchens.</p>
<b>Waste Disposal</b>	It is common for households to dig large holes in order to dispose of their waste, burn garbage including plastics or to throw waste in a heap pile. No recycling service for used materials is available on the Torres Islands. Waste is minimal compared to other islands in Vanuatu as there is less store-bought goods and smaller populations on the Torres Islands.
<b>Access to Community Rain Catchment Tanks</b>	There are rain catchment tanks located at schools and churches and private homes (that have been funded by community projects) that are available for the entire community use throughout Hiu, Tegua, Loh and Toga islands.

<b>5.1.3 Inventory of Improved Toilets</b>	<b>Hiu</b>	<b>Tegua</b>	<b>Metoma</b>	<b>Loh</b>	<b>Toga</b>	<b>TOTAL</b>
<b>Flush Toilet</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Water-Seal Toilet</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>7</b>
<b>Compost Toilet</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Ventilated Improved Pit Toilet (VIP)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

## 5.2 AGRICULTURE

5.2.1	AGRICULTURE
<b>Primary Crops</b>	Primary staple crops for consumption include wild yam, yam, Fijian taro, manioc, bananas and island cabbage. Copra sales from the Torres Islands are still regular and quite active especially on Toga Island. The LCM store in Santo is main buyer of copra. Villagers on Toga complain that if there is inclement weather, there is no safe anchorage for ships, so often it is impossible for them to load their copra for export.
<b>Garden Space</b>	Community members indicate that they believe there is sufficient space for gardening activities on the island over the next ten years.
<b>Agricultural Sales</b>	The sale of local produce such as root crops and fresh fruit is very minor and infrequent within the Torres Islands AC. Occasionally produce is sent via ship for sale in Sola, Vanua Lava and Luganville, Santo however, this has not taken place recently due to food security concerns and El Niño drought conditions.
<b>Food Security</b>	<p>Food security has recently become more of a challenge as reported by local communities due to recent impacts of a strong El Niño drought event. Many communities report that the on-going drought has resulted in their reducing their yield from the gardens and animals / pests / diseases have negatively affected food reserves as well.</p> <p>As there is relatively a small amount of store-bought food in the area due to infrequent shipping and low income generation, locals reported that they were very concerned with food security on the Torres Islands.</p>
<b>Agricultural Pests / Diseases</b>	<p>Community members reported agriculture being affected by many pests including beetles that spoil taro and yam crops, along with diseases harming papaya fruit and “lap-lap” leaves.</p> <p>A large portion of the taro harvest is reportedly wasted due to beetles spoiling the crops.</p>
<b>Impact from Invasive Species</b>	Wild pigs, chickens, and rats reportedly cause much damage to local gardens.
<b>Diet (Use of Store-Bought Foods)</b>	The communities members report a high incidence of use for store-bought foods even in times when disaster has not affected food reserves in the gardens.

5.2.2 Agriculture Inventory	None Available	Some Available	Plentiful
Coconuts		✓	
Kava	✓		
Coffee	✓		
Vanilla	✓		
Pepper (black or white)	✓		
Cacao	✓		

### 5.3

## FORESTRY

<b>Summary of Forestry Activities</b>	<p>There are no reported forestry activities within the Torres Islands AC.</p> <p>There is an idle sawmill on Tegua Island that was distributed to the community a politician- but locals have yet to operate this saw mill and claim they require training to use it properly.</p>
<b>Primary Species</b>	Locals consulted within the Torres AC do not report active participation in forestry activities.
<b>Nurseries</b>	No community nurseries reported within the Torres Islands AC.
<b>Timber Sales</b>	No timber is regularly sold from the area as reported by community members.
<b>Erosion Control</b>	<p>On Loh, Tegua and Metoma islands- there are no reports of upland erosion from locals.</p> <p>On Toga Island, locals report observing upland erosion but state that they are not aware of any problems caused by this erosion. However, on Hiu Island - there is a belief that runoff from upland erosion is affecting the quality of the coastal environment, possibly harming the coral reef and local fish reserves.</p> <p>There have been no attempts to curb upland erosion in the Torres Islands.</p>

### 5.4.1 Livestock Inventory

#### 5.4 LIVESTOCK

	Chickens	Ducks	Goats	Pigs	Cattle
Hiu	1,500	0	0	42	3
Tegua	100	0	0	30	0
Metoma	100	0	0	6	50
Loh	340	0	0	49	0
Toga	1,200	0	0	120	10
<b>TOTAL: TORRES ISLANDS AC</b>	<b>3240</b>	<b>0</b>	<b>0</b>	<b>247</b>	<b>63</b>

*\*Numbers reflect general estimates made by the communities during the VNA*

### 5.4.2 Livestock Summary

<b>Summary of Livestock Activities</b>	<p>The sale of livestock is occasional and does not contribute significantly to income generation within the Torres Islands AC. Poultry is raised primarily for consumption rather than for sale. The household on Metoma Island raises the most cattle as compared to other islands, as the Torres Islands have little available space for cattle to graze.</p> <p>Locals are interested in partaking in small-scale livestock activities for poultry and piggery farmers as a means to provide an alternative source of income as now there is an over-reliance on the harvest of coconut crabs and lobster.</p>
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5.5

**ENVIRONMENT - UPLAND**

<b>Geography / Description of Environment</b>	The Torres Group, consisting of 5 populated islands, is a smaller, flatter series of islands than the Banks Group and they are distributed over a shorter distance. The Torres Islands are located at the extreme northwest corner of province, isolated from Vanuatu's shipping routes. Receiving an abundance of precipitation, the temperature on the island varies during the hot and cold seasons. The average temperature is approximately 24.9°C at the coast and is a few degrees cooler in the centre of the islands. Weather in the Torres is seasonal, and warmer from November until April and the cooler and dryer period typically from May to October.
<b>Pollution</b>	Locals throughout the Torres Islands report that improper waste disposal is a considerable problem affecting the local environment. However, due to a smaller population and less consumption of store-bought goods compared to many place in rural Vanuatu, litter appeared to be average or less than average to the VNA team.
<b>Persistent Organic Pollutants (POP's)</b>	There is no reported use or presence of POP's.
<b>Water Catchment Areas</b>	There is no logging, livestock or construction of buildings in water catchment areas. There are upland protected areas where resources are protected by chiefly decree on each of the Torres Islands. However, gardens have reported as close to the water catchment on Tegua Island.
<b>Conservation Areas</b>	There are upland protected areas or conservation areas where certain resources are protected by chiefly decree on each of the Torres Islands. Each of these protected areas in the upland typically tends to join with a protected marine area along the coastline as well.
<b>Access to Traditional Building Materials</b>	Communities report abundant access to traditional building materials.
<b>Access to Firewood</b>	There is sufficient access to firewood in all communities within the Torres Islands AC.
<b>Erosion Related to Logging, Buildings</b>	No erosion reported in the upland areas that is directly linked to logging or construction activities.
<b>Invasive Species</b>	There are a large number of wild pigs, chickens and rats as well affecting food reserves throughout the upland area in the Torres Islands.
<b>Mining</b>	There are no reported mining activities in the Torres Islands AC.
<b>Management Plan</b>	There are no reported management plans for upland resources but some communities expressed an interest in establishing one during the VNA.

**5.5.1 Environmental Resource Inventory**

*\*While resources differ by community- results indicated below are inclusive of results from every community in **Torres Islands**.*

	None	Some	Many		None	Some	Many
"Nawempa"			✓	Fresh Water Prawns	✓		
Flying Fox			✓	Fresh Water Fish	✓		

## 6. COASTAL RESOURCES IN TORRES ISLANDS AC

### 6.1

### FISHERIES

#### Inshore Fisheries Summary

Fishing is important at a subsistence level for all households within the project site. Communities have established a number of “kastom” or “tabu” marine managed areas. These are managed through traditional management systems and chiefly council representatives.

The islands in the Torres group have a very healthy coral reef system due to the relatively small populations and the small areas of islands inputting pollution, silt and nutrients into the coastal waters. Fishing is often conducted at night targeting reef fish. There is the opportunity to reduce pressure on the inshore reef fishery through the installation of FAD’s in suitable locations.

The harvest of coconut crabs and lobster is the primary source of income for locals on the Torres Islands, who admit that current harvest levels are not sustainable and that these resources are quickly being depleted.

#### Coconut Crab

The sale of coconut crab is a primary source of income for locals throughout the Torres Islands. Coconut crab is exported by cargo ship when available and bi-weekly flights from Air Vanuatu, as well as consumed locally year-round. Locals report that the population of coconut crabs has been steadily declining on the Torres Islands.

There is a very healthy crab population on Metoma Island as a “tabu area” or protected area has been created here, forbidding the collection of crabs on the island. An international film crew from the BBC filmed a video documentary about the coconut crab on Metoma Island.

However, the remaining islands in the Torres Group each reported a decrease in the population of coconut crabs on their islands. Villagers on Toga Island report that coconut crabs are now extremely difficult to find on the island. Tegua Island is one of the last islands reporting a large stock of crabs on the island. Villagers from Loh and Hiu islands regularly travel to Tegua to harvest coconut crabs to sale.

The sale of coconut crab is regulated by the Vanuatu government in partnership with Air Vanuatu, although enforcement of regulations is challenging on the Torres. Restriction of crab sales during the breeding season is largely focused on the “commercial” sale at markets or to restaurants and hotels - while the consumption and collection of crab reportedly continues locally within the Torres Islands during the restricted season. A quota to limit the number of crabs allowed for export or consumption on the Torres each year is regularly surpassed according to the local resource monitor. Crabs sent via freight to agents on Air Vanuatu flights are counted by the voluntary resource monitor on Loh Island who has received training from Fisheries. However, individuals traveling by plane or ship are able to export crabs that are not always counted as part of the quota.

Locals regularly harvest more crab than can be allocated onto the Air Vanuatu flights due to weight restrictions for freight on the small aircraft. In late 2016, a charter flight was arranged to collect coconut crabs for sale after the close of the season. While there are protected areas in the upland and coastal areas where coconut crab harvest is forbidden on Hiu, Tegua and Loh islands - locals report that many people violate these restrictions and secretly harvest from these areas due to the financial incentive of collecting crabs.

Further restrictions on the harvest of coconut crab or resource management plans will not be viewed as sustainable by locals if a comparable and alternative source for income generation is not provided. Due to higher populations of villagers vying for the same depleting resources, it is generally accepted that coconut crab cannot continue to serve as a primary income source for future generations and that support to strengthen and enforce an improved management plan for coconut crabs is needed to preserve this valuable resource for future harvest.

<b>Offshore Fishing</b> <i>(Trolling or deep sea fishing)</i>	No reported regular offshore fishing activities with the Torres Islands AC. Trolling takes place while traveling between islands - with reports of tuna and wahoo being available.
<b>Inshore Fishing Methods</b>	Inshore fishing methods include primarily the use of wire and spear gun by local fishermen, as well as fishing line for reef fish. The use of fishing nets was not reported as widely practiced in the Torres.
<b>Fisheries Exports / Sales</b>	The export of coconut crab and lobster provides income for locals on the Torres Islands - but due to the lack of preservation options, the export of fish is not possible.
<b>Preservation</b>	There are no ice-boxes on the Torres Islands that could be used for fish preservation-however acquiring a means to preserve fish is considered to be a priority for communities.  Frequently large quantities of lobster are spoiled if the weather becomes especially hot or if there are delays or cancellations of the Air Vanuatu flights. Ice-boxes located centrally at the airport would prevent the waste of lobster stock intended for export.
<b>Fish Aggregating Devices (F.A.D.'s)</b>	There has never been a F.A.D. located within or near the Torres Islands AC according to local communities.
<b>Resource Monitors</b>	There are “resource monitors”, recognized by the Fisheries Department as having the authority to enforce fishing regulations and standards, located on Hiu, Tegua, Loh and Toga islands. These “resource monitors” have received training in marine resource management from Fisheries and the NGO called Wan Smol Bag.  The “resource monitor” on Loh Island is responsible for attempting to keep an inventory of the amount of coconut crab exported from the Torres Islands. This voluntary works recommended a review of baseline of the coconut crab population, and the inventory process to ensure good conservation practices are encouraged.
<b>Coral Reef</b>	Almost every community consulted reported that the coral reef located within their coastal area was in very good condition. There are mild concerns reported on Hiu Island about upland erosion and sedimentation causing harm to the coral reef there.
<b>Crown of Thorns Starfish (COTS)</b>	COTS have been reported by communities across the Torres islands in small quantities - but it is not known if their numbers are increasing or damaging local reefs.
<b>Sea Cucumber</b>	Sea cucumber in the Torres has only recently been harvested and sold in the Torres islands - although locals are unsure if this has had any negative impact on marine life.
<b>Traditional Conservation Methods</b>	A number of customary or “tabu” marine managed areas have been established by communities along the coast on every island of the Torres. These are managed through traditional management systems with decisions made by chiefly councils, customary landowners or selected representatives. There is a range of management systems in place for these sites, often allowing a fishery to recover its harvestable populations.
<b>Marine Protected Areas (MPA's)</b>	There are no Marine Protected Areas located within the Torres Islands AC.

6.2

**ENVIRONMENT - COASTAL RESOURCES**

<b>Marine Pollution</b>	There is a very limited amount of reported marine pollution located within the area that includes some household waste, discarded batteries from under-water flashlights used for fishing at night and sediment deposits caused by upland erosion.
<b>Coastal Erosion</b>	One of the most severely eroded coastlines on the Torres Islands is located on Tegua Island. Originally, households were located upon the immediate coastline and were at risk from a rapidly rising coastline and tidal waves that impacted the island in 1997 and 2004, until their relocation inland to Litau as part of the project supported by CIDA and SPREP.  In addition to coconut plantations, coastal erosion is reportedly threatened 4 households on Hiu Island that were recently relocated from the immediate coastline in 2015 due to storm surge. Villagers on Loh Island worry about coastal erosion affecting the airport in the future.
<b>Sedimentation</b>	Minimal levels of sedimentation reported due to smaller population levels on the Torres Islands and comparatively less intensive agriculture practices than other places in Vanuatu that rely more on agricultural produce for income generation. Mild concerns about the effects of sedimentation shared on Hiu Island.
<b>Dugongs</b>	Dugong sightings have been reported on Hiu, Loh and Toga islands (no sighting on Tegua). The sightings of the dugongs have shown that at least a pair of dugongs were present, swimming close to the shore at each island.
<b>Sea Turtles</b>	Communities within the Torres Islands site estimated that around 88 sea turtles are harvested for consumption each year. <i>(On Hiu Island, the community of Yegevigemene estimated that annually they consume over 50+ turtles, which by comparison seems like an unusually large quantity. Communities on Loh Island estimated 30+ turtles consumed per year.)</i> There is a large number of turtle monitors located throughout the islands, but awareness campaigns about the importance of protecting turtles is reportedly needed in some communities.
<b>Mangrove Ecosystems</b>	There no reported mangrove ecosystems report along the coasts of Hiu, Tegua and Loh islands. These ecosystems are respected by locals and have not been damaged by communities.
<b>Sand Mining</b>	Sand-mining take place at very minimal levels throughout the Torres Islands.

**6.3 COASTAL RESOURCE INVENTORY**

\*While resources differ by community- results indicated below are inclusive of results from every community in **Torres Islands AC**.

	None Available	Some Available	Plentiful
Reef Fish			✓
Bottom-Fish			✓
Sea Cucumber			✓

	None Available	Some Available	Plentiful
Trocha shellfish		✓	
Lobster			✓
Coconut crabs		✓	

## 7. NATURAL DISASTER & CLIMATE CHANGE - TORRES ISLANDS AC

### 7.1

### NATURAL DISASTER

<b>Tsunami / Storm Surge / Cyclone</b>	<p>The Torres Islands occasionally experiences earthquakes and tsunamis that threaten coastal settlements. For example, subsidence following an earthquake in 1997 caused an entire coastal coconut plantation on Loh Island to become submerged in seawater. Another earthquake in 2004 reportedly impacted the area again.</p> <p>On Hiu Island, Yegevigemene considers itself to be particularly vulnerable to cyclones, tsunamis and storm surge due to its proximity to the coastline. "Cyclone Ann" was reported as striking the Torres sometime in the last decade. Some households on Loh and Toga islands too are located adjacent to the coastal areas.</p>
<b>Volcanic Activity</b>	There is no reported volcanic activity affecting the population in the immediate area.
<b>Flooding</b>	Flooding of homes and gardens was not reported as a problem within the Torres Islands AC.
<b>Erosion to Infrastructure</b>	Villagers on Loh Island worry about coastal erosion affecting the airport in the future but currently there is no infrastructure damaged by erosion issues in Torres Islands.
<b>Landslides</b>	There are no reported landslides that have affected people or resources in the area.
<b>Drought</b>	Current drought conditions caused by El Niño weather patterns have major and severe impact on community food and water security levels.
<b>Recent Disasters of Note</b>	The extreme drought conditions experienced in 2015 - 2016 has had a major impact on food and water reserves on the island and will continue to have an impact on the island for some time. The entire supply of kava crops on the Torres Islands died during the drought period, which locals relied upon to supplement income from coconut crabs and lobster previously.
<b>Community Disaster Committees (CDC's)</b>	There is an active network of CDC's in the Torres Islands AC that was strengthened with training and support for DRR activities by the Red Cross that is effective in spreading warnings about potential disasters.
<b>Disaster Plan</b>	Each CDC has developed a disaster plan with community members, evacuation routes and the identification of potential shelters has taken place already in anticipation of emergencies.

### 7.2

### DISASTER WARNING

<b>Radio</b>	HF radio is a main conduit for updates regarding potential disasters - as officials at the Red Cross have kept villagers informed about disaster warnings in past years. Some villages do not have any other reliable form of communication available. Radio Vanuatu warnings are not received on the Torres Islands and often do not provide adequate time for these outer islanders to prepare due to their location towards the edge of the cyclone tracking map.
<b>CDC's</b>	Very effective in mobilizing communities and passing disaster warnings in the Torres.
<b>Mobile Phones</b>	SMS warnings are received on some communities on Toga, Tegua and Loh with reception in the Torres, although network reception is not constant or reliable. Friends and family in Port Vila and Luganville also ring to the islands with updates when network reception allows.
<b>Traditional Knowledge</b>	Traditional knowledge is not heavily relied upon to predict disasters or issue warnings, although many locals can recognize impending signs of a cyclone.
<b>No Warning</b>	All villagers within the area report that typically they receive some advanced warning before a disaster strikes.



### 7.3

### DISASTER SHELTER

<b>Status of Disaster Shelters</b>	On Hiu, Loh, and Toga islands, villagers seek shelter from cyclones at the school, a cave and some stronger permanent homes. On Tegua Island, communities take shelter in a nearby cave. The Red Cross funded the strengthening of some classrooms in the Torres Islands to better serve as a disaster shelter as well. Red Cross also led community efforts to improve the condition of nearby caves (put in sand, clean inside of caves). Most disaster shelters do not have access to a restroom and some villagers complained about being uncomfortable while hiding in the caves during a cyclone.
<b>Additional Community Buildings Used as Shelter</b>	Schools and caves are the primary structures used for disaster shelters. Some households choose to remain in private homes but there are no other community buildings used as disaster shelters.
<b>Typical Building Materials Used / Condition - Housing</b>	Most homes in the Torres Islands utilize a local building materials, sometimes mixing permanent materials such as copper roofing. Most houses appear to lack the structural integrity required to serve as a cyclone shelter.

### 7.4

### CLIMATE CHANGE

<b>Sea Level Rise Observed?</b>	Yes sea level rise has been observed.
<b>Sea Level Rise Affecting Infrastructure?</b>	Not currently, but there is a concern on Loh Island that sea level rise and coastal erosion may affect the airport. Relocation of community on Tegua Island over a decade ago due to sea level rise and vulnerability experienced along the coastline.
<b>Water Security - Impacted by Climatic Effects?</b>	Yes, extreme impact on water security due to impact from drought as many households rely on rainwater harvesting.
<b>Food Security - Impacted by Climatic Effects?</b>	Yes, food security severely threatened by increased likelihood for severe disasters and extreme weather events, increased temperatures and seasonal fluctuations.
<b>Gender Specific Impact</b>	As women are tasked with food preparation, bathing children and cleaning at households in the Torres - they report feeling especially vulnerable during drought periods on the Torres Islands. On Hiu Island, women reported concerns in accessing health services during periods of inclement weather when there are poor marine conditions. With no airstrip on the island, women were concerned about access to emergency treatment during stormy weather that often produces rough seas preventing transport by boat. Toga Island has an airstrip but women also shared concerns about access to the clinic on Loh Island during rough seas.

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

*\*While observations differ slightly by community, the results indicated below are inclusive of results from every community in Torres Islands AC.*

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

## 8.COMMUNITY SELF-IDENTIFIED PRIORITIES FOR DEVELOPMENT - TORRES ISLANDS AC

*\*At the conclusion of each Vulnerability & Needs 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	HIU ISLAND
Women's Focus Group	17	1) <u>Improve WASH</u> - repair and maintain gravity feed system in Yegevigemene, ensure that contamination to wells is minimized by promoting improved toilets 2) <u>Agro-Forestry Initiatives</u> - pest control measures, improved crop species, sandalwood seedlings, resilient coconut species
Men's Focus Group	24	1) <u>Build air-strip</u> - to support local business and to use with "Dr. Mark" for medical emergencies 2) <u>Fisheries support</u> - to alleviate pressure on coconut crab harvesting, promote fisheries with FAD's, training and solar ice-box
Youth Focus Group	5	1) <u>Sports playing field</u> - clearance and construction of playing field to promote sport 2) <u>Youth Centre</u> - Construct office building for youth

8.2	No of Participants	TEGUA ISLAND (+METOMA)
Women's Focus Group	13	1) <u>Complete Aid Post on Tegua</u> - finalize Aid Post construction to allow access to medicine and treatment on Tegua Island 2) <u>Improve water security</u> - either the installation of additional rain harvesting tanks or an alternative water source to be identified to supply village
Men's Focus Group	7	1) <u>Improve water security</u> - either the installation of additional rain harvesting tanks or an alternative water source to be identified to supply village 2) <u>Agro/Forestry initiatives</u> - distribution of seedlings for sandalwood, whitewood, mahogany- and replanting of coconuts.
Youth Focus Group	N/A	<i>N/A - Insufficient number of youth present in village to form separate focus group</i>

8.3	No of Participants	LOH ISLAND
Women's Focus Group	11	1) <u>Water Security</u> - additional clean water sources provided to households on Loh Island. 2) <u>Women's Centre</u> - construct new office
Men's Focus Group	19	1) <u>Build Area Council Office</u> - improve community access to services by improving roadway, installing bridges as river crossings, etc 2.) <i>N/A (group unable to reach consensus after half hour discussion)</i>
Youth Focus Group	14	1) <u>Agro-Forestry Initiatives</u> - training, seedling distribution, community nursery 2) <u>Youth Centre</u> - Construct office building for youth

8.4	No of Participants	TOGA ISLAND
Women's Focus Group	24	1) <u>Improve Water Security</u> - women desired a supply system that would lead to improved access of water, possibly a pump further upland that would store water in a tank, and use a gravity supply to provide water to households. 2) <u>Construct vehicular road</u> - community has started clearing a path using hand-tools to other side of island, to assist with transport of copra and sick patients requiring medical evacuation by plane.
Men's Focus Group	28	1) <u>Improve Water Security</u> - women desired a supply system that would lead to improved access of water, possibly a pump further upland that would store water in a tank, and use a gravity supply to provide water to households. 2) <u>Construct vehicular road</u> - community has started clearing a path using hand-tools to other side of island, to assist with transport of copra and sick patients requiring medical evacuation by plane.
Youth Focus Group	23	1) <u>Improve communications</u> - negotiate / provide for mobile phone reception in the main village of Litau, as currently individuals must walk 30 minutes uphill to access the Digicel network and 1.5 hours to access the TVL network. 2) <u>Instruments— Support youth music</u> - youth interested in obtaining instruments to use for church purposes and to learn music

## 8.5 LIST OF REMAINING PRIORITIES FOR DEVELOPMENT IDENTIFIED BY COMMUNITIES

*\*Each focus group was previously asked to identify priorities for development in their communities and then decide as a group which priorities qualified as the top two priorities during the VNA. Priorities that were identified within the focus groups but did not qualify as the top two priorities for any focus groups in the Torres Islands are listed in the table below, in no particular order:*

REMAINING IDENTIFIED PRIORITIES (NOT SELECTED AS TOP 2 PRIORITIES BY FOCUS GROUPS)
1) Improve airport on Toga Island, make landing strip larger and serviceable by Air Vanuatu 2) Fisheries support on each island: provision of solar ice-box, F.A.D.'s and fisheries training 3) Sports equipment for youth 4) Improve sanitation and support for construction of improved toilets, possible compost toilets 5) Construct permanent-building for Kindy on Toga Island 6) WASH awareness and initiatives promoting hygiene and sanitation 7) Training for Women's Centre: sewing, weaving, & cooking skills 8) Improve cooperative on Toga Island: to buy produce, fish & copra from locals 9) Repair Aid Post on Toga Island 10) Improve footpath to emergency water source at "Black Rock" on Toga Island 11) Improve boat landing access at Litau, Toga Island 12) Disaster shelter building on Loh Island constructed (possibly to join with initiative to construct AC office) 13) Build maternity block for Loh Island clinic 14) Training for community on leadership, business management, disaster 15) Promotion of small-poultry projects 16) Construction of National Bank of Vanuatu post in Torres Islands AC 17) Improve church building on Loh Island 18) Conservation of upland and coastal resource support, strengthening of protected areas 19) Forestry training on Tegua - how to operate sawmill 20) Community hall for Loh Island 21) Engine for women's committee boat - 30 horse engine 22) Increased flights from Air Vanuatu to assist with export of resources