

# **Enhanced Vulnerability Capacity Assessment (EVCA)** for EAST END/LONG LOOK, BRITISH VIRGIN ISLANDS



Photo Credit: BVI News

**Community** : East End/Long Look, British Virgin Islands  
**Assessment Period** : 1<sup>st</sup> – 18<sup>th</sup> November, 2021  
**Report Date** : 25<sup>th</sup> November, 2021

## **Facilitation Team**

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## **1. ACKNOWLEDGEMENTS**

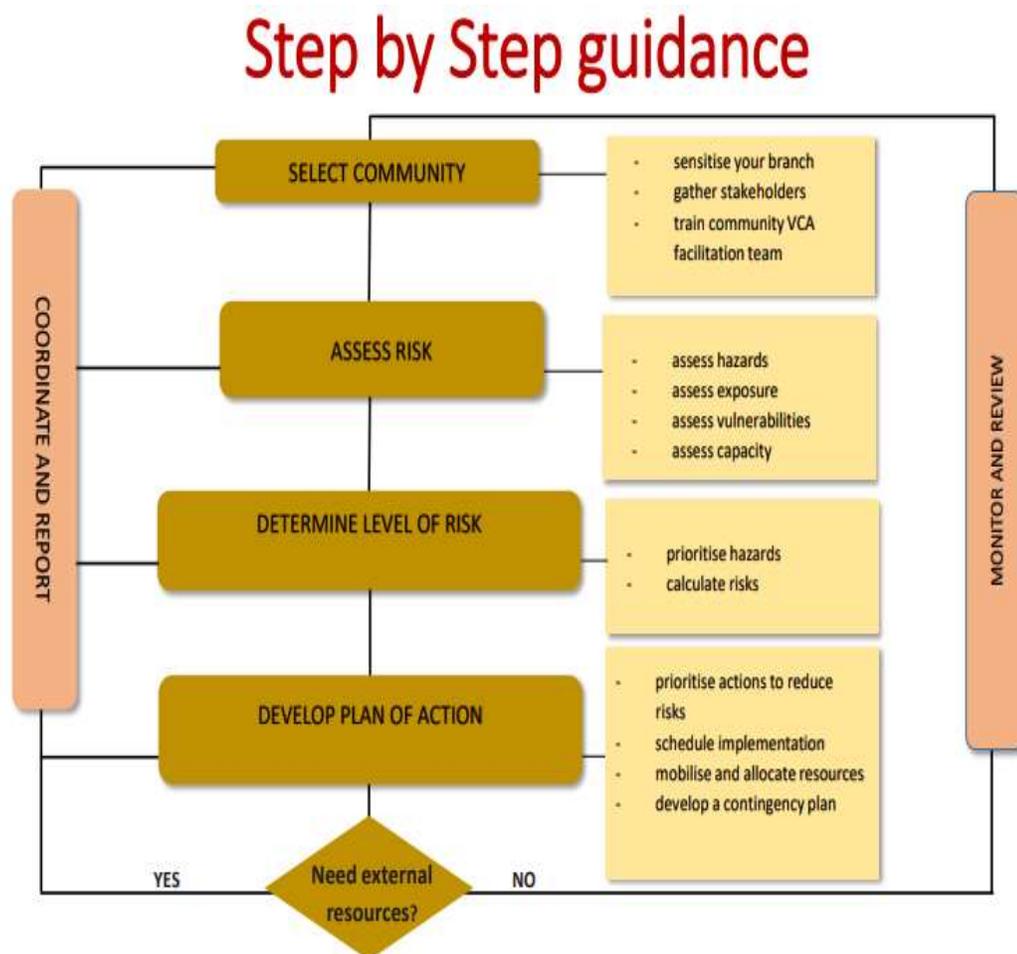
We would like to thank the Dr. the Honourable Natalio Wheatley the seventh district representative and Honourable Marlon Penn, the eighth district representative for so eagerly supporting this process in the communities within their respective districts. We also wish to thank the residents of the East End/Long Look community for so eagerly accepting to participate through the dedication of their time and input towards making this assessment and report a successful reality. Lastly, we wish to thank our sponsors from the Caribbean Catastrophe Risk Insurance Facility for their vested interest in assisting the communities in the BVI to become more resilient in the face of hazards that are faced every day.

## 2. ENHANCED VULNERABILITY AND CAPACITY ASSESSMENT (EVCA) DATA

The Enhanced Vulnerability and Capacity Assessment (EVCA) is an approach of the Red Cross Red Crescent (RCRC) Societies. It is a participatory process developed to assist communities to become more resilient through the assessment and analysis of the risks they are facing and the identification of solutions to address these. It enables communities, with the support of the RCRC when needed, to explore where these risks come from, which members of the community will be the worst affected, what is available at all levels to reduce the risk, and what initiatives can be undertaken to strengthen the capacity of people at risk and reduce the risks they face.

EVCA includes climate change considerations as well as gender and diversity considerations.

*(The diagram below depicts a step by step guidance of the EVCA process, taken from the EVCA Manual toolkit, 2019)*



There are various assessment tools which can be utilized to carry out the EVCA process. For the East End/ Long Look community, the following tools were used:

- Historical profile-** Historical profile is a way to build pictures of past events that had an effect on a community and stimulate discussion on what has happened in the past. In a historical profile, community members and the EVCA officers create a timeline of the different significant events and developments over the past several decades.
  
- Seasonal Calendar-** Helps in exploring the seasonality of events in a community over a one-year period. It can be used to show typical hazard patterns including when hurricanes, floods, droughts or diseases normally occur, when social and economic conditions including 'lean periods' and seasonal labour migration takes place, and public events such as holidays and festivals occur, and identify how the correlation between the different events might increase risks.
  
- Mapping-** Helps in visualizing the resources, vulnerabilities and hazards in a community.
  
- Direct Observation /Transect Walk-** This involves walking through the community to observe and discuss the daily activities, the surroundings and the risks and resources. It is used to note the sites and topography of the area, to understand interrelationships based on space, and to identify vulnerabilities, hazards, risks, and capacities.
  
- Venn Diagram-** Venn diagrams can be used to collect social data by using circles to show the links or relationships between different parts of a community or institution. In the context of a VCA, a Venn diagram is used to examine similarities and differences between institutions, partners, people and issues in a community and to identify problems and possible solutions.  
(EVCA Manual Tool Kit, 2019)

### **3. COUNTRY CONTEXT**

The British Virgin Islands, an overseas territory of the United Kingdom, is self-governed by a democratically elected House of Assembly, with the Governor representing Her Majesty, the Queen.

The British Virgin Islands is a cluster of about 60 islands, cays, and rocks in the north-eastern corner of the Caribbean Sea, east of Puerto Rico and the U.S Virgin Islands. The British Virgin Islands' total land area is 154 km<sup>2</sup>, of the 15 inhabited islands, the largest are Tortola (56 km<sup>2</sup>), where Road Town, the capital, is located; Anegada (39 km<sup>2</sup>); Virgin Gorda (22 km<sup>2</sup>); and Jost Van Dyke (8 km<sup>2</sup>).

Topography varies from extremely flat land in Anegada to mountainous and rugged terrain on Tortola, which has the highest point, Mount Sage, rising 543 m above sea level.

The territory has an extensive road network and a high rate of private vehicle ownership. Transportation between the islands are mainly via ferry, with limited air transportation, mainly to Anegada.

The British Virgin Islands lies in the path of the hurricane and tropical storms and is vulnerable to wind damage, flooding, and landslides; it is also at risk for earthquakes and tsunamis.

The territory's 2010 population and household census placed the resident populations at 28,054, with 83% residing in Tortola followed by 14% living in Virgin Gorda. The population of Tortola was 23,491, having 11,468 males, and 12,023 females. The average household size is 2.59 people. The population for 65 plus (elderly) for Tortola was 1,429. According to the territory's Central Statistics Office, in 2010 the male-to-female ratio was 1:1; with African descendants as the largest ethnic group.

The East End/Long Look community is located approximately 5 miles east of the main city of the British Virgin Islands, Road Town, Tortola. The boundaries of the community extend generally from Paraquita Bay on the western end to Thomas Land in the eastern most section, and from the sea south coast of the island inland to Josiah's Bay and Hawk's Nest on the northernly section of the community..

#### **3.1. MAIN HAZARDS IN THE COMMUNITY**

The community is exposed to hurricanes, flooding, mosquitoes and droughts, coastal erosion which results in siltation, tsunami inundation, storm surges and landslides from the surrounding hillsides (DDM, 2018).

#### **3.2. COMMUNITY SELECTION CRITERIA**

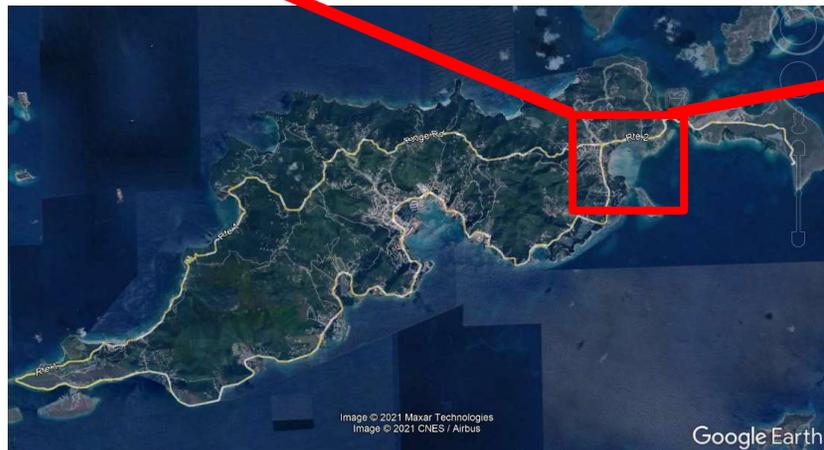
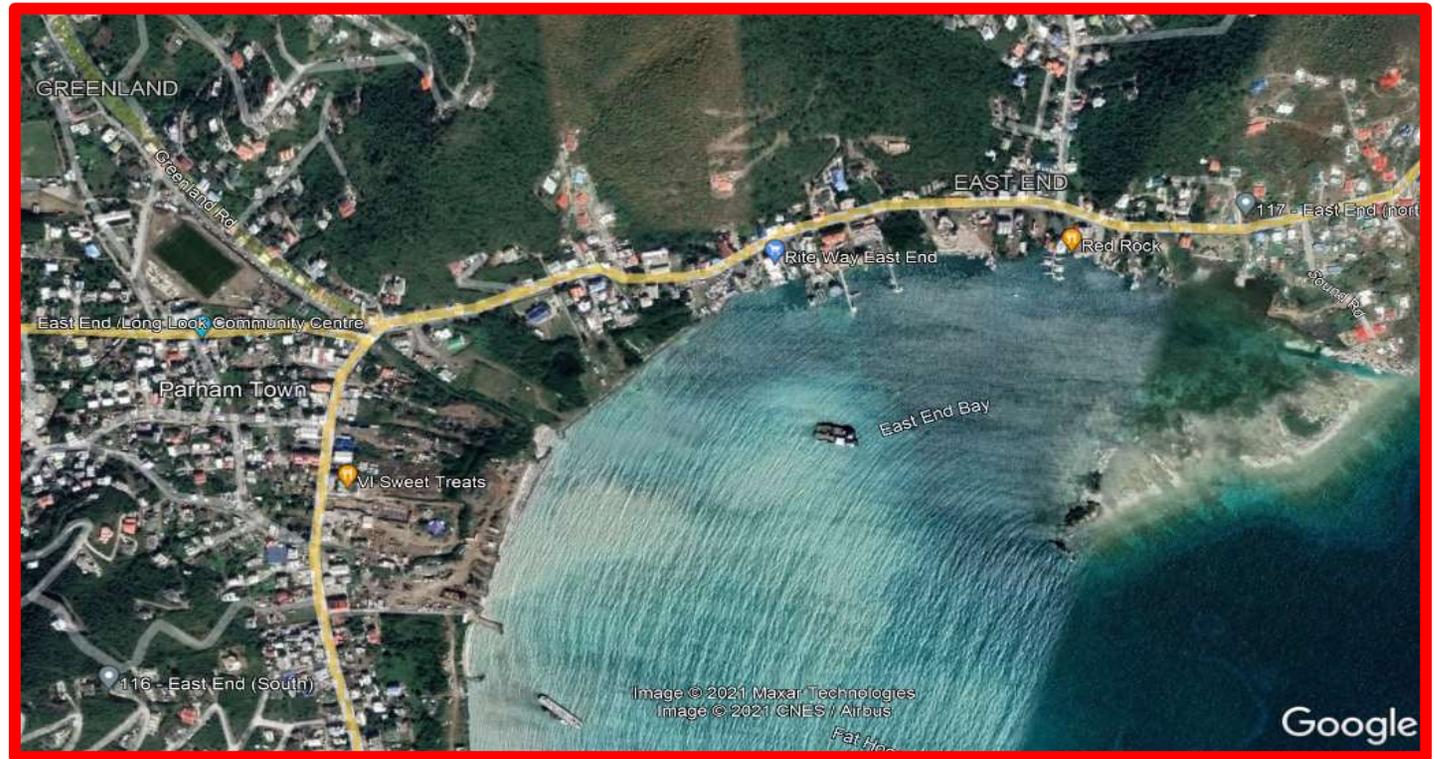
In collaboration with the Department of Disaster Management (DDM), the British Virgin Island Red Cross used the Strategic Targeting Methodology Tool (STM) to select the East End/Long Look community. This tool is used to determine the most vulnerable communities in a country. It ensures transparent, consistent and unbiased decision-making that leads to the selection of communities.

Three other communities in the territory were identified as being vulnerable, and East End/Long Look community ranked as one of the highest on the Strategic Targeting Methodology community selection tool. It was the highest due to its vulnerability to storm surge on its coast, weak housing structures and poor waste management problems. The community is also known for having a vulnerable population, which is predominantly the Spanish speaking members, in which many are migrants and live-in vulnerable conditions

### 3.3. DESCRIPTION OF EAST END/LONG LOOK

Name of the community: Location: EAST END/LONG LOOK

(Images were obtained from Google Earth Maps and GIS-Imaging, 2021)



## 4. ASSESSMENT DATA

### *Describe how the data was collected*

-Two community meetings were conducted, these meetings had a total of 10 participants, 2 males and 8 females. Participants fell under the age range of 20-50 plus.

-The first meeting was held on the 11th of November, 2021, and consisted of a total of ten (10) participants, 2 males, and 8 females. The occupation of some of the participants involved was a Government District Representative, a principal, a professor, a teacher, a church minister, Public Service officers.

-The second meeting was held on the 18th of November, 2021, and consisted of a total of six (6) participants, 1 male, and 5 females, participants involved were a teacher, business owners, Health professionals and Public Service officers.

-The secondary data used was gathered from information from different websites consisting of limited demographic information, online information sharing the historical facts from the community, as well as information from the Central Statistics Office.

<b>HAZARD</b>	<b>EXPOSURE</b>	<b>VULNERABILITY</b>	<b>CAPACITY</b>
<b>PRIMARY DATA</b>	<b>PRIMARY DATA</b>	<b>PRIMARY DATA</b>	<b>PRIMARY DATA</b>
- Community Meeting - Focus Group - Direct consultation with Government officials	- Community Meeting - Focus Group - Direct consultation with Government officials	- Community Meeting - Focus Group - Direct consultation with Government officials	- Community Meeting - Focus Group - Direct consultation with Government officials
<b>SECONDARY DATA</b>	<b>SECONDARY DATA</b>	<b>SECONDARY DATA</b>	<b>SECONDARY DATA</b>
-Government and other websites	-Government and other websites	-Government and other websites	-Government and other websites
<b>TOOLS USED</b>	<b>TOOLS USED</b>	<b>TOOLS USED</b>	<b>TOOLS USED</b>
-Direct Observation -Mapping -Seasonal Calendar -Transect walk -Primary/ Secondary Data -	-Direct Observation - Mapping -Seasonal Calendar -Transect walk -Primary/ Secondary Data	-Direct Observation - Mapping -Seasonal Calendar -Transect walk -Primary/ Secondary Data	-Direct Observation - Mapping -Seasonal Calendar -Transect walk -Primary/ Secondary Data

## 5. POPULATION DATA

	Total population in East End/Long Look		
Breakdown of community population	Male	Female	Total 6,131 (Population Data from Central Statistics) 2018
	3,166	3,215	
Elderly and single parents estimate	<b>65 year plus (Elderly)– 374 persons</b> (2010 Census indicates that (6.1%) of individuals on Tortola are 65 years and older. The value was calculated from this information.)	<b>Single headed household– 1790 persons</b> (2010 Census indicates that 13.6% of households on Tortola are single-headed. The value was calculated from this information.)	
Disability (estimate if data not available)	870 (2010 Census indicates that 14.2% of individuals have some form of disability on Tortola, value was calculated from this information.)		
Type of context	Peri-urban area		Coastal, highland
Livelihood activities: Agriculture, Fishing, Government employees and officials, variety shops, supermarkets, restaurants, apartment complexes, marinas, airport, hotel workers employed in tourism season.			

## 6. HAZARDS – WHAT IS AFFECTING THE COMMUNITY?

### HAZARD 1- Hurricanes

The hurricane belt includes the Caribbean Sea and Gulf of Mexico, thus Caribbean islands within this area are affected by hurricanes. The BVI lies within this area and is therefore exposed to hurricanes. Hurricane season begins on the 1st of June and extends to the 30th of November; however, the peak time is within the months of August and September. Strong winds, sea level rise, and rain clouds are some common warning signs that a hurricane is approaching. A hurricane watch is issued 48 hours in advance of the onset of tropical storm force winds, if conditions worsen an advisory following an alert may be issued. The Department of Disaster Management (DDM) in the BVI is responsible for issuing all warnings and information on natural disasters, they alert the public through the BVI app, and receives support from the Antigua Met Office. Since 1916 eighteen hurricanes have affected the Territory and impacted the community of East End/Long Look. The most recent and large impact hurricanes were Irma and Maria in 2017 (both Category 5). Communities were affected with flooding and property damage. In 2019 the effects from Hurricane Dorian caused flooding and minor property damage in some areas.

### HAZARD 2- COVID-19 Pandemic

The COVID-19 started as an endemic in December of 2019 in the Republic of China, since then this disease was deemed a pandemic by the World Health Organisation (WHO) in 2020 and has since spread to over 200 countries across the world. As of 2021, there has been a total of 267,644,234 cases and 5,277,228 deaths as a result of the disease. In the British Virgin Islands with a population of just over 30,000 has had a total of 2,816 cases since the first case was discovered in March of 2020 and 38 deaths respectively. The most vulnerable individuals to the disease are persons with underlying health conditions and the elderly.

### HAZARD 3- Mosquitoes

The Aedes Aegypti mosquito is found predominantly in tropical regions. There are many species of the Aedes Aegypti mosquito, and it is the main vector responsible for the spread of several viral diseases including chikungunya, dengue and ZIKA. Mosquitoes thrive in temperatures that are 80 degrees Fahrenheit and above. They are more active during the hot season/summer time. Stagnant/standing fresh water, trash cans, old items/accumulated garbage/bulk waste, gutters, tree stumps and mud piles are known mosquito breeding sites. The poor management of waste disposal and the high prevalence of stagnant water within the community makes the community a perfect breeding site for mosquitoes. Community members have expressed their concerns on the high levels of mosquitoes within the area. The mosquitoes are a nuisance and puts the community at risk of mosquito borne diseases.

## 7. CONSOLIDATED RISK INFORMATION

### 7.1. HAZARD 1 - HURRICANES

<b>HIGH</b>			
The entire community is vulnerable to hurricanes. The low-lying areas of the community are mainly within flood prone areas and along the coast which causes them to be affected by storm surge. Small businesses and homes are also within this area. The elevated areas within the community are exposed because of location and topography.			
<b>RISK KNOWLEDGE - HIGH RISK</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>Older people, children, single parents, and people with disabilities in the community are likely to be in need assistance to evacuate if needed in the event of a hurricane.</li> <li>There is a dedicated Community Emergency Response Team (CERT) in the community and a Resilience Team that was trained to provide first aid, rescue and recovery services (there is no information available on how many individuals at the moment); however, the individuals would be in need of refresher trainings to maintain their status.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>There are two public schools which are certified SAFE schools (suggesting that resilient activities are carried out and supported).</li> <li>The community is informed about disaster preparedness through (faith-based organizations, radio stations, social media).</li> <li>Faith based organizations/churches mainly serve as hurricane shelters and meeting points for the distribution of emergency information.</li> </ul>	<ul style="list-style-type: none"> <li>It is determined that the high risk as a result of the high exposure to hurricanes and high vulnerability in which vulnerability level needs to be lowered, while the capacities are to be increased/improved. This will support building community resilience.</li> </ul>	<ul style="list-style-type: none"> <li>Refresher CERT and First Aid training for school teachers, and other trained individuals. Train new CERT members within the community.</li> <li>Commence repairs on /build new emergency shelters.</li> <li>A list of older residents and persons with disabilities that need assistance before and after a storm needs to be developed.</li> </ul>

<ul style="list-style-type: none"> <li>Additional members within the community need to be trained in order to adequately provided response efforts that is sufficient to support the large population residing in this specific community. There is knowledge of the emergency shelters, however the largest of the shelters is down for repairs due to damages sustained from previous hurricanes.</li> </ul>	<ul style="list-style-type: none"> <li>There is also a Sub-Branch Police Station and Fire Station located in the heart of the community with an established Emergency Satellite Emergency Operations Center within the Fire Station holding equipment for response efforts. The East End/Long Look area also serves as a marine shelter for boats.</li> <li>The Territory's main airport is also located near to this particular community, allowing for persons who wish to be evacuated to have the first opportunity to leave.</li> </ul>		
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**HEALTH AND BASIC NEEDS - HIGH RISK**

<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>The community would not have access to the main town if roads are blocked by debris therefore access to banks, advanced healthcare and medical supplies, food supplies that are not available in the community, personal water supply (cisterns) can become compromised and</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>There are 2 public health clinics and 1 private clinic within the community.</li> <li>There is also 2 major supermarkets and other small superettes that are available in the community.</li> </ul>	<ul style="list-style-type: none"> <li>It is determined that the high risk as a result of the high exposure to hurricanes and high vulnerability (which needs to be lowered) places the community at risk. The moderate capacities need to be increased/ improved because it highlights that</li> </ul>	<ul style="list-style-type: none"> <li>Hurricane preparedness meeting before the Hurricane season begins to ensure community members are knowledgeable on preparedness activities for before, during, and after a</li> </ul>

<p>electricity is limited and would take a longer time to be restored.</p> <ul style="list-style-type: none"> <li>• Persons depend on farming in the community and the impact of a storm would destroy crops, impacting the community's ability to provide for themselves.</li> <li>• Mentally Challenged individuals and Drug addicts are in need of shelter and proper care.</li> </ul>	<ul style="list-style-type: none"> <li>• Persons have invested in generators for their homes for electricity and generate water supply.</li> </ul>	<p>the community is not holistically prepared for a hurricane.</p>	<p>hurricane, or similar natural disaster.</p> <ul style="list-style-type: none"> <li>• Department of Waste Management to enforce laws to prevent the dumping of bulk items.</li> <li>• Increased Ghut cleaning by the Public Works Department to be implemented in preparation for and also during the hurricane season.</li> <li>• Improvement of waste management, regular clean ups and community awareness to be done by conducting campaigns with activities that</li> </ul>
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			encourages community spirit with assistance from Government, NGOs including the Red Cross and Green VI and other private businesses with vested interest in the initiative.
<b>SOCIAL COHESION – MEDIUM RISK</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<b>Medium</b> <ul style="list-style-type: none"> <li>• Displacement which leads to persons living with neighbours, friends and family.</li> <li>• There is a known separation between the multilingual community and the locals/ residents due to differing culture and the language barriers.</li> <li>• Homes are littered with debris and derelict vehicles and boats that harbour hazardous materials</li> </ul>	<b>Medium</b> <ul style="list-style-type: none"> <li>• The community is small and close knitted mainly due to family relations therefore persons would take refugee/shelter with their family members.</li> </ul>	<ul style="list-style-type: none"> <li>• It is determined that the risk is medium as a result of high exposure to hurricanes, high vulnerability and high capacity within the community. Separation within the community is mostly present between the multilingual members and locals/ residents.</li> </ul>	

and mould that may affect persons health.			
<b>CONNECTEDNESS – MEDIUM RISK</b>			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>-Laws (e.g. dumping of bulk waste) are not enforced within the community are not adhered to by some members of the community. Derelict boats and cars have been situated for 5 years or more.</li> <li>Ghut cleaning is not regularly done in the community therefore debris prevents the free flow of water and becomes an issue when there is heavy rainfall. This causes a backflow of water which results in flooding of the community.</li> </ul>	<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>The community has direct access to Government Ministers and Governmental Departments amongst other non-profit organisations that offer assistance in the form of appropriate solutions.</li> </ul>	<ul style="list-style-type: none"> <li>It is determined that the risk is medium due to the high level of exposure to hurricanes, medium level of vulnerability and high capacities within the community, highlighting that the community is connected, and that these connections must now fulfil their roles within the community.</li> </ul>	
<b>INFRASTRUCTURE &amp; SERVICES- HIGH RISK</b>			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions

<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>• The community suffered major impacts especially after the Hurricanes in 2017. There were damaged and debris riddled roads due to storm surge and high winds, damaged electricity poles, damaged homes (some due to poor engineering measures) and vehicles (some were thrown off the side of hills due to the force of the wind from the storm), and damaged many businesses. The community centre which was also considered an emergency shelter was heavily impact, schools and some churches were also severely damaged. Small businesses and homes are still under repairs from the impact of 2017 Hurricanes and further damage rendered by other systems including Hurricane Dorian in 2019.</li> <li>• Construction businesses and materials were in high demand across the Lesser Antilles due to impacts from the storms in 2017, therefore, recovery took a longer period of time for some individuals.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• Construction businesses and engineers, trucking businesses, businesses that sell construction materials, businesses that provide and sell hurricane shutters.</li> </ul>	<ul style="list-style-type: none"> <li>• The risk to infrastructure and services within the community is considered high due to the high exposure to hurricanes, high vulnerability and medium capacities within the community at a high risk. Capacities are present; however, they are not being utilized to lower the vulnerability level within the community.</li> <li>• Lack of manufactured goods locally slows down the recovery process. Therefore, there is a high dependence on the shipping industry in the Territory generally which could cause recovery to take months depending on the impact of storms in other countries.</li> </ul>	<ul style="list-style-type: none"> <li>• Government to encourage the public and international investors to establish manufacturing businesses locally which also creates jobs for locals.</li> <li>• Provide training sessions where interested community members can become skilled workers, which will help build community resilience.</li> </ul>
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**ECONOMIC OPPORTUNITIES – MEDIUM RISK**

Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• Debt and unemployment for some individuals due to the aftermath of Hurricane impacts on the Territory.</li> <li>• Persons do not have insurance to cover costs for repairs on their home and for their livelihoods such as for fishing boats and farming equipment which render them unable to recover financially.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• Economic opportunities were gained for some individuals who were able to return to their jobs and begin their recovery process.</li> <li>• The Government implemented a subsidy program for farmers and fisherman in need of restoring their livelihoods.</li> </ul>	<ul style="list-style-type: none"> <li>• This is a determined as low risk due to the high exposure to hurricanes, vulnerabilities are medium due to unemployment which affects livelihoods and therefore, reducing the capacities to medium as well.</li> </ul>	

**SHELTER – HIGH RISK**

Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>• Persons who are not able to afford durable materials for the building of a house are subject to living in weak structures that have a high chance of being destroyed in a storm.</li> <li>• Persons do not secure and protect their households with hurricane shutters.</li> <li>• Mentally disabled and drug addicts are in need of shelter, however assistance to provide the necessary care for them is not readily available. Providing housing for these individuals at Emergency Shelters can cause dangerous situations for other persons taking refuge at the Shelter.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• Construction companies, engineers, construction materials are accessible.</li> <li>• Building codes have been enforced for new structures.</li> <li>• Government implemented a housing recovery assistance program for individuals who did not have adequate financing to rebuild their homes after the storms in 2017.</li> </ul>	<ul style="list-style-type: none"> <li>• This is considered medium because there is capacity for assistance to rebuild after a storm, however for mentally disabled persons and drug addicts', accommodations for those individuals are not always readily available.</li> </ul>	<ul style="list-style-type: none"> <li>• Government to construct/outfit a shelter for mentally disabled individuals and drug addicts to reside during the passing of a storm.</li> </ul>

**NATURAL ASSETS – HIGH RISK**

Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>Farming industry impacted due to crops destroyed by high winds and top soil run off due to heavy rainfall.</li> <li>There are severely damaged mangroves which serve as both a buffer for the coast lines and nursery for juvenile fishes and coral reefs which assist with breaking large wave and the main habitat for most sea creatures. The destruction of these two habitats sets back the fishing industry and causes a limitation on food supply for the community residents.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>Local College teaching agricultural techniques to save slips of plants and teaching methods for replanting of mangroves.</li> <li>NGOs such as Jost Van Dyke Preservation Society, UNITE BVI assist with funding for replating efforts across the territory.</li> </ul>	<ul style="list-style-type: none"> <li>The risk is medium, there is a high exposure to hurricanes and low capacities, but the vulnerabilities are high. The mangroves and coral reef being damaged exposes the community to risk if a system passes the Territory.</li> </ul>	<ul style="list-style-type: none"> <li>Cash Vouchers for most vulnerable individuals who are in need.</li> <li>Provision of seeds for replanting efforts.</li> </ul>
<b>Risk analysis</b>		<b>Total Risk Score</b>	<b>HIGH</b>

The entire population in the East End/Long Look community stands to be most affected by hurricanes because of their high exposure and vulnerability level caused by storms.

## 7.2. HAZARD 2 – COVID-19 PANDEMIC

COVID-19 EXPOSURE – MEDIUM			
<p>The exposure to Covid-19 is considered medium due to the transmissibility of the disease across the world in a span of 24 months and relatively high death toll. There has been cases of the disease and deaths as a result which have affected residents living in the East End /Long Look Community.</p>			
RISK KNOWLEDGE – HIGH RISK			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>Members of the public do not understand how transmissible and deadly the disease is and do not adhere to the mask and sanitization protocols as they should therefore, cases continue to rise.</li> <li>Persons are also not getting vaccinated due to both the lack of information and misinformation.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>The Ministry of Health and Social Development is combating the misinformation with various advertisements on the radio and social media to educate the public about COVID-19, the safety protocols and information about the various vaccines.</li> <li>Other NGOs including the Red Cross has been involved in the educational awareness campaign about the disease.</li> </ul>	<ul style="list-style-type: none"> <li>Persons who are not properly educated can be at risk to contract COVID-19 and also affect other persons who may be more vulnerable to the effects of the disease.</li> </ul>	<ul style="list-style-type: none"> <li>Public Awareness campaigns to continue in the community through printing of education awareness materials.</li> </ul>
HEALTH AND BASIC NEEDS - HIGH RISK			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p>	<p><b>MEDIUM</b></p>	<ul style="list-style-type: none"> <li>Persons not adhering to COVID-19 protocols are</li> </ul>	

<ul style="list-style-type: none"> <li>• Community residents that have underlying health conditions and the elderly are at highest risk of being fatally impacted from the effects of COVID-19.</li> <li>• The territory does not have an adequate number of ventilators in the main hospital, therefore more persons are at risk of not receiving adequate care.</li> <li>• Persons are not reporting their symptoms early to Public Health due to fear of being ostracized. Individuals are trying to manage the disease on their own which has resulted in unnecessary fatalities.</li> <li>• Access to basic supplies is limited due to territory wide locks downs and curfews being implemented into law by the Government, therefore persons have a limited amount of time to purchase what they need for their households.</li> </ul>	<ul style="list-style-type: none"> <li>• Sanitation packages inclusive of items such as (masks, hand sanitizers, Lysol) have been distributed to the public by the Red Cross for less fortunate families within the community.</li> <li>• There are (2) health clinics in the community to assist with vaccination and testing for COVID-19.</li> <li>• Access to the main hospital in the main town is available to residents.</li> <li>• COVID-19 Vaccine drives are implemented by Government in partnership with other NGOs.</li> <li>• NGOs providing delivery service for food supplies and medications to persons who are in need during lockdowns.</li> <li>• Supermarket Delivery Services and Independent Delivery services supplying</li> </ul>	<p>targets for contracting and spreading the disease. The Territory does not have adequate healthcare equipment to handle a massive outbreak of COVID-19 patients. With a massive outbreak the Government may reimplement curfews/lockdowns which further prevents persons from accessing supplies at any given time.</p>	<ul style="list-style-type: none"> <li>• Public Awareness campaigns to continue in the community through printing of education awareness materials.</li> <li>• Providing Sanitation packages to vulnerable families can continue to be implemented.</li> <li>• Vaccination Drives to be held in the community.</li> </ul>
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	households with food supplies during lockdowns.		
<b>SOCIAL COHESION – MEDIUM</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<b>MEDIUM</b> <ul style="list-style-type: none"> <li>• Due to the transmissibility of the disease persons are unable to have much physical contact therefore in person meetings/activities and social functions are no longer advised.</li> <li>• Students are prevented from attending school in person which causes the loss of important social and teamwork skills that are normally developed in a school environment.</li> <li>• An increase in cases of domestic abuse in households occur due to the restrictions in place for COVID-19 as frustration due to loss of jobs affect families from being able to provide the themselves which results in persons becoming violent.</li> </ul>	<b>MEDIUM</b> <ul style="list-style-type: none"> <li>• Persons are able to use online mediums to make contact for work and school related activities.</li> </ul>	<ul style="list-style-type: none"> <li>• This risk is considered medium because even though there may be person who are not tech savvy, they may be able to receive assistance from others in their households.</li> </ul>	

**CONNECTEDNESS – MEDIUM RISK**

<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<p><b>MEDIUM</b></p> <ul style="list-style-type: none"><li>• Persons who are not technology savvy have difficulty in accessing their families who may live in a different location.</li><li>• Persons with elderly family members can no longer access their loved ones during a lockdown of whom may have various needs.</li></ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"><li>• Remote access allows for some businesses to allow persons to work from home.</li><li>• Limited number of Healthcare/Homecare personnel making daily checks on elderly persons as necessary.</li></ul>	<ul style="list-style-type: none"><li>• Persons are at a disadvantage as they can no longer handle with their business and familial dealings in person. Only persons who are technology savvy have the ability to continue working and communicating through online platforms.</li></ul>	

**ECONOMIC OPPORTUNITIES – HIGH RISK**

<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<p><b>MEDIUM</b> Persons in tourism, hospitality, beauty (which encompasses skin care, hair care, and personal care) and the restaurant industries are heavily impacted due to customers no longer utilizing their services.</p> <p>Construction companies suffer major losses as workers are no longer able to carry out their work due to territory wide lockdown restrictions and/or limitation of individuals that can tend to one construction site.</p>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"><li>• Some persons who are considered essential workers still continue to work.</li><li>• Government provides subsidies for persons who are unemployed.</li></ul>	<ul style="list-style-type: none"><li>• Persons lose their jobs/unable to work due to the continuous lockdowns and curfews due to the rise in cases and cannot adequately provide for their families.</li></ul>	

<b>WATER AND SANITATION – LOW RISK</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<p><b>LOW</b></p> <ul style="list-style-type: none"> <li>• Water Bills may increase for some persons due to the increase need for water to wash hands for sanitation purposes.</li> <li>• Persons may not be able to afford purchasing additional sanitation supplies for the increased need.</li> <li>• Supermarkets may take part in price gouging of needed sanitation supplies.</li> </ul>	<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>• Local Government Water supply is accessible to all residents.</li> <li>• Persons can access supplies and the supermarkets in their communities or visit stores in the main town to purchase supplies.</li> <li>• Red Cross provides sanitation supplies to the most vulnerable persons who cannot afford to purchase the necessary items for their protection.</li> </ul>	<ul style="list-style-type: none"> <li>• This risk is considered low as access to supplies is still available however there may be issues of affordability.</li> </ul>	
<b>Risk analysis</b>		<b>Total Risk Score</b>	<b>MEDIUM</b>

### **7.3. HAZARD 3 – MOSQUITOES**

<b>MOSQUITO EXPOSURE- MEDIUM</b>
<p>The exposure is medium due to the mosquito prevalence within tropical regions. There are many trees/plants, bulk waste, and stagnant water within the community, serving as the perfect conditions for mosquito breeding sites.</p>

**RISK KNOWLEDGE - HIGH RISK**

Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>• Poor garbage disposal and waste management has caused an increase in bulk waste/derelict vehicles within the community.</li> <li>• Stagnant water is also common in the low-lying areas of the community creating the required environments for mosquito breeding sites.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• The Environmental Health Division conducts fogging periodically to lower the number of mosquitoes within the area.</li> <li>• Governmental organisations and NGO's can support the community to conduct clean-ups to lower the amount of waste. Community members can lead with support from NGOs to maintain cleanliness within the area.</li> </ul>	<ul style="list-style-type: none"> <li>• The risk is high because the vulnerabilities within the community surrounding this subject is high. Capacities are moderate because they can be improved.</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement of waste management, regular clean ups and community awareness to be done by conducting campaigns on dengue (and other mosquito borne diseases) and the importance of fogging, removing stagnant water, and other practices that will help lower the amount of mosquito breeding.</li> </ul>

**HEALTH AND BASIC NEEDS - MEDIUM RISK**

Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>MEDIUM</b></p> <p>MEDIUM Community is at risk of developing mosquito borne diseases.</p>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>• Preventative measures are present (mosquito nets are available on the island)</li> </ul>	<ul style="list-style-type: none"> <li>• The risk is medium. If community members build on their capacities by</li> </ul>	

	there are two public community clinics and one private clinic that offer treatment for symptoms of different mosquito borne diseases.	practicing prevention then the risk will lower.	
<b>SOCIAL COHESION – HIGH RISK</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<b>MEDIUM</b> <ul style="list-style-type: none"> <li>Community members may avoid socialising and attending social events/activities because of the high number of mosquitoes within the area.</li> <li>Small businesses (bars, restaurants etc.) may experience economic lost because of less customers using their services.</li> </ul>	<b>LOW</b> <ul style="list-style-type: none"> <li>Some community members are not concerned with the number of mosquitoes within the area.</li> </ul>	<ul style="list-style-type: none"> <li>The risk is high because the vulnerability can lower the cohesion within the community.</li> </ul>	<ul style="list-style-type: none"> <li>Implement clean-up activities and fundraisers for the purchasing of supplies to reduce the population of mosquitoes and encourage community spirit.</li> </ul>

CONNECTEDNESS – HIGH RISK			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>HIGH</b></p> <ul style="list-style-type: none"> <li>Lack of timely support from Government and other businesses to help with clean-ups and other necessary measures that need to be taken place.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>Members within the territory’s Government are in position to help and fulfil their role within the community.</li> </ul>	<ul style="list-style-type: none"> <li>There is a high risk because of the vulnerability aspects, the community has been experiencing the high mosquito prevalence and they feel like no one is helping. They believe that for anything to be done, they will have to conduct these actions on their own.</li> </ul>	<ul style="list-style-type: none"> <li>Community members to form a committee to advocate for help, and put actions in place to maintain cleanliness within the area.</li> </ul>
INFRASTRUCTURE & SERVICES – MEDIUM RISK			
Vulnerability aspects	Capacity aspects	Summary of risk	Actions
<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>Many homes are in the vicinity of Ghuts, and stagnant water which causes a risk of persons being affected by mosquitoes.</li> <li>Some homes do not have screen doors or window screens which allows a lot of mosquitoes to enter freely into their homes.</li> </ul>	<p><b>MEDIUM</b></p> <ul style="list-style-type: none"> <li>Some members in the community have screen doors and window screens, and for those who do not have, they can be found in stores on the island.</li> </ul>	<ul style="list-style-type: none"> <li>There is a medium risk because of the low vulnerability and the medium capacity aspect. There are only a few houses in the community without screen doors or windows and there are only a few houses that are built in a close proximity to open water.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Health division to ensure community members are aware on what measures can be taken to help lower the risk.</li> </ul>

<b>ECONOMIC OPPORTUNITIES – MEDIUM RISK</b>			
<b>Vulnerability aspects</b>	<b>Capacity aspects</b>	<b>Summary of risk</b>	<b>Actions</b>
<b>MEDIUM</b> <ul style="list-style-type: none"> <li>High cost for mosquito repellents, screen doors and windows. Cost of mosquito control measures.</li> </ul>	<b>MEDIUM</b> <ul style="list-style-type: none"> <li>There are two public clinics in the community and there are a few community doctors/nurses.</li> <li>The main hospital is also accessible for persons in need of advanced care.</li> </ul>	<ul style="list-style-type: none"> <li>The risk is medium because there is a medium vulnerability in terms of economic opportunities and medium capacity levels.</li> </ul>	
<b>Risk analysis</b>		<b>Total Risk Score</b>	<b>MEDIUM</b>

## 9. MITIGATION ACTIVITIES

	Hazard	Project/ Activity	Who will implement- BVI Red Cross/DDM/Com munity with RC support	Quantity	Unit Price US	Total US	Month				How will it be implemented?
							WK 1	WK 2	WK 3	WK 4	
1	Hurricanes	Hurricane preparedness programs, First Aid/CPR and CERT training	BVI Red Cross and Government (DDM)								Trainers from the Red Cross will conduct a one-day Basic First Aid training members of the community. The training would include COVID-19 measures the trainees need to take into consideration.
											Red Cross in partnership with DDM to conduct refresher CERT training.
											Red Cross in partnership with DDM to establish a Teen CERT in amongst students from the community.
											Hurricane preparedness meeting to be conducted with the community conducted annually.
											Re-establish a committee in the community for disaster preparedness.
											Compile list of vulnerable residents of the community in need of assistance before and after the impact of a hurricane.

2	COVID-19	COVID-19 awareness programs and vaccination drives	BVI Red Cross and Government (Ministry of Health and Social Development)								Public Awareness campaigns to continue in the community through printing of educational awareness materials and arranging pop-up information booths in the community.
											Providing Sanitation packages to vulnerable families can continue to be implemented.
											Vaccination Drives to be held in the community.
											Cash Vouchers for the most vulnerable persons.
3	Mosquitoes		BVI Red Cross and Government (Ministry of Health and Social Development) Environmental Health Division-Vector Control Unit								Consult with Environmental Health division and Green VI on purchasing materials to decrease the mosquito populations.
											Improvement of waste management, regular clean ups with debris cleaning tools and community awareness to be done by conducting campaigns on dengue (and other mosquito borne diseases) and the importance of fogging, removing stagnant water.



## 10. HISTORICAL PROFILE

The chart below provides a graphic diagram of the historical and visual profile of the East End/Long Look community. It showcases periods of historical, socio-economic significance which are tied to the evolution of the community as residential space. Importantly, it dates the **hazards** and disasters of significance as well as help with the identification of the elements at risk (exposure).

EVENT	YEAR	Hazard Category
<b>1700's</b>		
Freed Slaves in Nottingham estate	1776	Community Event
<b>1800's</b>		
The Chapel	1810	Community Event
Hurricane San Mateo	1819	Major Disaster
Uprising against British militia members led by Christopher Fleming	1890	Community Event
<b>1900's</b>		
First Harvest festival	1916	Community Event
Main Road was paved	1950's	Community Event
Church of God's Holiness Opened	1950's	Community Event
Dixon's Commercial School was Established	1957	Community Event
Rosalind Penn Health clinic opened	1960's	Community Event
Airport Bridge was built	1960's	Community Event
Iris Penn Smith Clinic was opened	1960's	Community Event
Cottage Industry was established	1960's	Community Event
Long Look Methodist Church established	1968	Community Event
First telephone in East End	1969-1970	Community Event
Measles outbreak	1970's	Health Crisis
Electricity in East End	1970's	Community Event
(Linton Wheatley) First Pilot from the BVI	1970's	Community Event
First Airplane crash at Airport	1971	Community Event
Fine Foods Supermarket established	1979	Community Event
Hurricane Hugo	1989	Major Disaster
East End Methodist School renamed to Willard Wheatley Primary School	1990's	Community Event

H. Lavity Stoutt Community College established	1990	Community Event
Dancia Penn named First Female Attorney general	1992	Community Event
Hurricane Jose (category 1) caused light damage to the territory.	1999	Severe Weather
<b>2000's</b>		
ZROD radio station was established	2000	Community Event
Airport Bridge was rebuilt/renamed	2002	Community Event
New airport was inaugurated	2002	Community Event
Hurricane Earl (category 1)	2010	Severe Weather
Water Plant was established	2010	Community Event
The re-dedication of the "Stickett"	2013	Community Event
Hurricane Irma and Maria	2017	Major Disaster
Hurricane Dorian (category 1)	2019	Severe Weather
COVID-19 Pandemic	2020	Health Crisis

## 11. SEASONAL CALENDAR

The chart below highlights the months in which events occur in the community of East End/Long Look. Based on the chart many of the events has high occurrence from the months of September to January. Some of the hazards in the community; such as: hurricane season and mosquito season have high occurrence a few months before summer and lasts until November. Poor garbage disposal has a high occurrence from November to April because of the festivities during that time. (Key: Yellow signifies Low Occurrences and Red signifies High Occurrences.)

Seasonal Calendar- East end/Long Look Community												
Events/Occurrences	J	F	M	A	M	J	J	A	S	O	N	D
<b>Festival/Holidays</b>												
Hamilton Lavity Stoutt Day			Red									
Easter Holidays				Red								
Sovereign's Birthday						Red						
Fisherman's Day							Red					
Virgin Islands Day								Red				
Festival Holidays									Red			
Heroes and Forefather's Day										Red		
The 1949 Great March and Restoration Day											Red	
Christmas Festivities												Red
Ole/ New Year's Festivity												Red
<b>Social</b>												
Low Income (Tourism)									Yellow	Yellow		
High Income (Tourism)	Red	Red									Red	Red
Immigration/Migration	Yellow											
Fishing Season	Red	Red	Red	Yellow	Red	Red						
Farming Season	Yellow	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
School	Red	Red	Red	Red	Red	Red			Red	Red	Red	
Sargassum										Red		
<b>Health</b>												
Garbage Disposal (poor)	Red	Yellow										
Mosquitoes	Yellow	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
Flu, Coughs and Colds	Red	Red	Yellow	Red	Red	Red						
<b>Hazards/Disasters</b>												
Heavy Rainfall				Red	Red					Red	Red	Red
Drought	Red	Red	Red									
Hurricane Season						Red	Red	Red	Red	Red	Red	

## 12. DIRECT OBSERVATIONS

The EVCA team recorded their direct observations found within the community, categorising them under vulnerabilities, hazards, exposures, and capacities. The tables below show the recorded observations highlighted within the community, they coincide with the three identified hazards; hurricanes, flooding and mosquito breeding sites. These place the community at a high risk, however, some of the capacities within the community are also high and once they are utilised, they can lower the community's risk to the different threats.

### Level of importance:

1 = Very important

2 = Medium importance

3 = Low importance

Rank	Direct Observations- Vulnerabilities
1	Lack of connectivity
1	Lack of economic opportunities
1	Persons not able to afford health care
1	Person have no insurance (homes and cars)
1	Non-appropriate building codes (no hurricane shutters on some houses)
1	Vulnerable people- Pregnant women, some elderly persons, Non-English speaking persons, persons with disabilities, unemployed individuals
2	Derelict buildings
2	Weak house structures
2	Lack of community networking
1	No insurance for some homes and businesses
Rank	Direct Observations- Hazards
1	Un-clean drainage routes
1	Mosquito breeding sites
1	Bulk waste (derelict vehicles, boats)
2	Stagnant water
2	Stray animals (chickens)
2	Fire risk
2	Earthquake risk
2	Tsunami risk
1	Landslide risk
Rank	Direct Observations- Exposure
1	Homes and businesses not built to deal with hurricane impacts
1	Tropical region (mosquito prevalence, hurricanes, storm surge, tsunami, earthquakes)
2	Elevated regions - location and topography (landslides)
Rank	Direct Observations- Capacities
1	Schools (Primary and Kindergarten level)

1	Public clinic (Nurse, Doctor)
1	Red Cross volunteers
1	Skilled people (carpenters, electricians, truck drivers)
1	Churches
1	Businesses (small)
1	Gas station
1	College
1	Airport
1	Supermarkets/Superette
1	Police Station
1	Fire Station
1	Marine Shelter (for boats)

### 13. VENN DIAGRAM

This diagram highlights the major concerns expressed by members of the community. These concerns indicate the exposures, vulnerabilities, and risks within East End/Long Look. Although Hurricanes, COVID-19 and Mosquitoes were identified as the major hazards and exposures within the community, through our community meetings, focus groups and direct observations, it was concluded that the major vulnerability within the community is **Disaster Risk Knowledge**; that is the lack of knowledge about the subject matter which affects both residents and Community Leaders. The lack of disaster risk knowledge is present within the community because laws are not being enforced to prevent such situations. Additionally, there is little to no adherence by community residents due to both the lack of knowledge and lack of law enforcement.



## 14. CONCLUSION

There is an ongoing need for the Red Cross Branch to interact more effectively with vulnerable communities, Government and other key stakeholders in order to create more effective disaster risk reduction and climate change adaptation. The EVCA can provide both a greater understanding of local conditions of life and how effective organizations will be in raising the capacities of at-risk populations to cope with recurring shocks affecting their livelihood.

Having assessed the risks and priority areas, the community will be consulted to expand on the identified prioritized hazards, vulnerabilities and to help develop/improve existing mitigation strategies that were recommended by the BVI Red Cross EVCA team. The BVI Red Cross will continue its ongoing work with supporting public health campaigns with Ministry of Health which seeks to control mosquito breeding sites, while building community resilience for hurricanes and other natural disasters with CERTs from our partners at the Department of Disaster and Management (DDM) while fulfilling the BVI Red Cross mandate to provide First Aid training. Partnerships will continue to be built with other stakeholders, Government entities and interest groups, such as the East End/Long Look Resilience Team, and Environmental Health Division within the Ministry of Health and Social Development.

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