

# Knowledge, Attitudes and Practice Study on Climate Change



Japan- Caribbean Climate Change Partnership

January, 2017

Saint Vincent and the Grenadines



From  
the People of Japan



Empowered lives.  
Resilient nations.

## Table of Content

Content	Page Number
<b>Executive Summary</b>	3
<b>Background Information</b>	6
<b>Presentation and Analysis of Findings from Quantitative Survey</b>	10
Demographic Variables	10
Knowledge on Climate Change	14
Attitudes on Climate Change	20
Practices Related to Climate Change	24
Media Use	27
<b>Presentation and Analysis of Findings from Qualitative Survey</b>	31
Knowledge on Climate Change	31
Attitudes on Climate Change	34
Practices Related to Climate Change	36
Media Use	38
<b>Summary of Findings and Recommendations</b>	
Summary of Findings	39
Recommendations	42
<b>References</b>	44
<b>Annex</b>	

## 1.0 Executive Summary

The Knowledge Attitudes and Practice Survey (KAP) on Climate Change was commissioned by the United Nations Development Programme through the Japan-Caribbean Climate Change Partnership (J-CCCP). The J-CCCP is designed to strengthen the capacity of countries in the Caribbean to invest in climate change mitigation and adaptation technologies as prioritized in their Nationally Appropriate Mitigation Actions (NAMAs) and National Adaptation Plans (NAPs).

The KAP Survey was conducted to inform the development of a communication strategy on climate change targeting the general public. The KAP will assist in identifying gaps in knowledge, attitudes and behaviours that can be targeted as well as priority target groups, messages and channels that should be included in the strategy.

The KAP measured respondents general knowledge on climate change including their understanding of what climate change is, what causes climate change and how climate change is impacting their community. It also measured respondents attitudes to climate change, specifically, their level of concern about the issue, their perceptions on the importance of various actions that can be taken, perception on actions being taken at all levels and their willingness to take action to address climate change. The survey also attempted to identify actions being taken by the community to address climate change as well as barriers to action. Finally, the KAP survey measured media use, prominence of climate change stories in the media and most effective ways to reach communities with messages.

The study was conducted in 14 communities utilizing a mix of quantitative and qualitative methodologies. A survey was conducted in 10 communities across the island using stratified random sampling and a quota sampling scheme to identify some 550 households to be targeted. The communities surveyed were Vermont, Cane Grove/ Pembroke, Buccament Bay, Colonaire, Langley Park, Sandy Bay, Marriaqua, Rose Bank/Dark View, Bequia and Union Island. Additionally, focus group discussions were held in 4 communities. These communities were Vermont, Sandy Bay, Bequia and Marriaqua.

Major findings from the survey include the following:

The majority of homes (64.4%) are either situated near a river, coastline, low-lying areas or on or near a steep incline. These are more vulnerable to climate related hazards than the 35.5% of homes not situated near to a river-side, coastline, and low lying area or on steep incline. These homes are owned by the majority of occupants (68.2%) and the vast majority are constructed from zinc/metal roofing (96.5%) and concrete outer walls (76.2%).

Despite the obvious threats of climate related hazards, the majority of respondents (67.8%) do not have home insurance. Only 14.4% reported that their homes were insured while 17.8% did not know or were not sure. Of the 14.4% who had home insurance, 46% had insurance against

hazards while 35.4% had no hazard insurance and 18.6% did not know or were not sure if they were insured against hazards.

The majority of respondents are familiar with the term climate change. 93.8% of respondents have heard the term climate change before. Only 6.2% of respondents reported that they have never heard the term climate change before.

The majority of respondents (69.3%) define climate change as changes in weather pattern or weather conditions. Other definitions included changes in temperature, changes in the environment, and global warming. It is clear that they understand that climate change brings about changes in weather, temperature, etc. However, they were not able to demonstrate a comprehensive understanding of the meaning of climate change. 25.3% indicated that they did not know the meaning.

The majority of respondents are aware of several of the major changes associated with climate change; changing weather patterns (89.8%), flooding (85.6%), landslides (81.0%), sea level rise (73.8%) and erosion along the coast (70.9%). When compared to the top 5 changes noted, a significantly lower percentage of respondents identified other changes such as differences in seasonality of crops, increase in insect pest and decrease in fish stock.

Respondents demonstrated a limited understanding of what was causing climate change. It is clear that some respondents understand those issues at the community level that are contributing towards greenhouse gas emission. However, there appears to be a lack of comprehensive understanding of the major contributing factors at the global and national level. The answer that was most popular, although only selected by a little more than half of the respondents, was deforestation (cutting down trees and mangroves). This was followed by improper garbage disposal (44.5%) and burning of fossil fuels such as coals, oils and natural gases (43.8%). Interestingly, only 9.5% of respondents selected electricity generation as a contributing factor to climate change while only 35.5% selected poor industrial practices. 18.4% still believe that it is an act of the creator.

Respondents are aware that climate change is affecting Saint Vincent and the Grenadines. The majority of respondents (79.1%) indicated that climate change is affecting their communities.

Changing weather patterns, flooding and landslides were the top three changes that have been affecting communities over the past 10 years. These are consistent with the top three changes participants associated with climate change. This demonstrates that they are able to associate the more prominent changes in their communities to climate change. However, significantly less respondents indicated that their communities have been affected by erosion along the coast (62.2%), sea level rise (63.3%), stronger and more frequent storms (58.5%), and increase in air temperature (57.5%).

It is encouraging to note that the majority of respondents expressed concern about climate change. 88.8% of respondents were either very concerned or somewhat concerned about climate

change. Only 2.9% of respondents indicated that they were not concerned about climate change while 8.4% indicated that they weren't sure or did not know how they felt about climate change.

An interesting finding is that two of the top three recommended actions that can help communities to prevent or lessen the impact of climate change focused on community education and awareness and community participation. 89.9% of respondents felt that it was very important or somewhat important to increase public awareness on climate change issues. 85.8% felt that it was very important or somewhat important to encourage and promote community participation and 85.6% felt that it was very important or somewhat important to increase reforestation.

There were mixed opinions on whether actions were being taken by community leaders, central government and community members at the community level to prevent or lessen the impact of climate change. Overall, the percentage of persons who feel that any of the actors above are taking action was significantly low. This could signal a lack of awareness and low visibility of actions that are being taken or that specific actions are not being taken at the community level.

It is encouraging to note that the majority of respondents, 78.7%, indicated that they are prepared to do whatever it takes to help to preserve their environment in responding to climate change. Equally encouraging is that 61.6% of respondents disagree or strongly disagree that there is nothing a small country like Saint Vincent can do about climate change.

Although some actions are being taken by individuals and communities to prevent or lessen the impact of climate change, respondents reported that they are not taking more actions because they do not have enough information or are not aware of what actions should be taken. 38.2% indicated that they do not have enough information to take actions while 27.8% reported that they do not know what actions they should be taking. It is encouraging to note that only 4.9% of respondents indicated that it is not their responsibility to take action while only 3.6% stated that they were not taking action because climate change was not a concern in their community.

In some communities even after residents are relocated due to damages suffered or the potential threat of damage to their homes they return to the location. In some instances, other community members establish their homes on the vacant properties. In some instances, some persons are unwilling to relocate despite constant efforts by authorities. Other negative practices mentioned include improper waste disposal, cutting down of trees by farmers, blocking drains and water ways with debris, and general lack of community participation and involvement in local level response.

## 2.0 Background Information

### 2.1 National Context

St. Vincent and the Grenadines is a multi-island nation consisting of 32 islands each with its own characteristics. It is located in the Eastern Caribbean and has a population of approximately 110,000. St. Vincent is the largest of the 32 islands that comprise the nation, covering roughly 390 sq. km (150 sq. miles). The Grenadines extend 72 km (45 miles) to the southwest. The other inhabited islands, north to south, are Young Island, Bequia, Mustique, Canouan, Mayreau, Union Island, Palm Island, and Petit St. Vincent.

In 1996, the Government of St. Vincent and the Grenadines ratified the United Nations Framework Convention on Climate Change (UNFCCC) and in 2004 it ratified the Kyoto Protocol.

Since 2010 climate related events can be said to be part of the daily lived experiences of the island's residents. In the latter part of 2009 and early 2010, the island was affected by severe drought. This was closely followed by Hurricane Thomas, also in 2010, which caused significant damages. In 2011 and 2013 there was widespread flooding, followed by drought in 2014/2015. In fact, 2015 is recorded as one of the driest years. In 2016 the island experienced a through system that resulted in extensive rains causing flooding and landslides in several areas.

A Carib Save report, 2014, warns that the extent of such changes is expected to be worse than what is being experienced now. The report noted that St. Vincent & the Grenadines (SVG) is already experiencing some of the effects of climate variability and change through damage from severe weather systems and other extreme events, as well as more subtle changes in temperature and rainfall patterns. Detailed climate modelling projections for St. Vincent & the Grenadines developed by Carib Save predict an increase in average atmospheric temperature, reduced average annual rainfall, increased Sea Surface Temperatures (SST), and the potential for an increase in the intensity of tropical storms.

The Government of Saint Vincent and the Grenadines is very cognizant of its vulnerability to climate change and indicated in its 2015 Intended Nationally Determined Contribution Report (INDC) to the UNFCCC that the geography, geology and socio-economic circumstances of St. Vincent and the Grenadines make it extremely vulnerable to climate-related natural disasters. Due to its mountainous topography, most activities on the mainland are concentrated on the narrow, low-lying coast line, at risk to sea-level rise (SLR) and coastal erosion while the landscape also adds risks of landslides and flash flooding. An increase in severe weather events will result in significant expenditures, which will further constrain St. Vincent and the Grenadines' social and economic growth.

The Government further reports that the island has suffered significant impacts over the past five years as a result of severe weather events. In total, the loss to the country was in excess of US\$600 million over that period, equating to approximately 35% of its Gross Domestic Product (GDP). The increased coastal erosion, droughts, storms, floods and landslides of the last decade have severely

impacted livelihoods and government have neither the financial or technical resources to address these challenges.

The main sectors, identified by the government, that are vulnerable to climate change include; Agriculture, Forestry and Fisheries, Tourism, Coastal zone, Water resource sector and the Health sector. The INDC reports that agriculture is one of the largest economic activities on St. Vincent and it contributes significantly to the economic and social development of rural livelihoods in particular. The agriculture sector in St. Vincent is especially sensitive to extended periods of drought, unevenly distributed rainfall and natural disasters when coupled with existing practices such as mono-cropping and poor soil and water management.

As it relates to tourism, expected increases in the frequency or magnitude of certain weather and climate extremes (e.g. heat waves, droughts, floods, tropical cyclones) as a result of climate change will affect the tourism industry through increased infrastructure damage, additional emergency preparedness requirements, higher operating expenses (e.g. insurance, backup water and power systems and evacuations) and business interruptions. Of equal concern is that fact that more than 90% of the infrastructural development of the country lies on a narrow coastal belt less than eight meters above sea-level. The government also noted that further reduced rainfall would severely impact the water supply of rivers and streams while an increase in the intensity of rainfall in fewer rain days is also expected, which means that not only is the country vulnerable to droughts, but also to the secondary effects of torrential rains such as landslides and the contamination of water supplies. Climate change is also expected to affect the health sector as Vector borne diseases may increase due to increased precipitation and temperatures.

Given the many challenges presented by climate change, the Government of SVG has mainstreamed Climate Change Adaptation and Mitigation into its National Economic and Social Development Plan and has outlined specific targets and strategies to respond to the threat of climate change.

This increased focus on climate change provides an opportunity to revisit the draft National Climate Change Policy to ensure that all interventions across all sectors are underpinned by a comprehensive national framework and that coordination is strengthened across the sectors.

The Pilot Programme for Climate Change Resilience (PPCR) is one of the island's flagship programmes and is focusing on climate vulnerability risk assessment and risk reduction, data collection, analysis and information management, the development of a comprehensive framework for strengthening of the existing policy, legal and institutional framework to address Climate Change and public education and capacity building across all sectors.

The Government of SVG is also beneficiary to a number of other grants and technical support to strengthen its response to climate change. These include the Regional Disaster and Vulnerability Project funded by the World Bank and the J-CCCP funded by the Japanese Government and implemented by UNDP.

The sector where the government's response has been most visible is the agriculture sector. Since 2013 the Ministry of Agriculture has been restructuring its approach to agriculture and

providing increased support to farmers to ensure that they are able to maintain crop yield in the face of disasters experienced. Ongoing technical support to the Ministry is being provided by IICA, CARDI and the FAO.

## 2.2 Background to the Study

The knowledge, attitudes and practice survey on climate change was conducted in St. Vincent and the Grenadines as part of the Japan Caribbean Climate Change Partnership (J-CCCP). The survey was conducted during the period 10-19 December, 2016. The main objective of the KAP Survey is to inform the development of a communication strategy on climate change targeting the general public. The KAP will assist in identifying gaps in knowledge, attitudes and behaviors that can be targeted as well as priority target groups, messages and channels that should be included in the strategy.

The KAP measured respondents general knowledge on climate change including their understanding of what climate change is, what causes climate change and how climate change is impacting their community. It also measured respondents attitudes to climate change, specifically, their level of concern about the issue, their perceptions on the importance of various actions that can be taken, perception on actions being taken at all levels and their willingness to take action to address climate change. The survey also attempted to identify actions being taken by the community to address climate change as well as barriers to action. Finally, the KAP survey measured media use, prominence of climate change stories in the media and most effective ways to reach communities with messages.

The survey utilized both qualitative and quantitative methodologies. A quantitative survey was administered to 550 residents of 10 communities in St. Vincent and the Grenadines using a stratified random sampling frame. The communities surveyed included; Vermont, Cane Grove/Pembroke, Buccament Bay, Colonaire, Langley Park, Sandy Bay, Marriaqua, Rose Bank/Dark View, Bequia and Union Island. 11 enumerators from the respective communities were recruited and trained to conduct data collection in target communities.

Community	Male over 25	Female over 25	Youth 18-25	Total
Vermont	20	20	10	50
Cane Grove/Pembroke	20	20	10	50
Rose Bank/Dark View	20	20	10	50



Buccament Bay	20	20	10	50
Colonaire	20	20	10	50
Langley Park	20	20	10	50
Sandy Bay	20	20	10	50
Marriaqua	40	40	20	100
Bequia	20	20	10	50
Union Island	20	20	10	50
<b>Total</b>				<b>550</b>

Table 1.0 Target Population

### Qualitative data gathering

In addition to the 550 surveys in 10 communities, 4 Focus Group discussions were held in Marriaqua, Sandy Bay, Bequia and Vermont. Each focus group ranged from 10 -14 participants including youth, women and men from the communities. 11 Key Informant interviews were also conducted with representatives from Ministry of Agriculture, Forestry, Fisheries and Rural Transformation, Ministry of National Mobilisation, Social Development, Family, Gender Affairs, Persons With Disabilities and Youth, the SVG Red Cross, the Ministry of Tourism, Sports and Culture, the National Rivers, Parks and Beaches Authority, Central Water and Sewerage Authority, the National Emergency Management Organization, the Interamerican Institute for Cooperation on Agriculture (IICA) and personnel responsible for national climate change response within the Ministry of Economic Planning, Sustainable Development, Industry, Information and Labour.

All focus group and key informant interviews were facilitated by the lead researcher and recorded electronically on tape.

A survey protocol was developed and submitted to the UNDP Office for Barbados and the Organization of Eastern Caribbean States (OECS) as the implementing agency, as well as the focal points for climate change within the Ministry of National Economic and Social Development. The protocol was revised based on input and feedback from UNDP Barbados and the OECS as well as the focal points for climate change within the Ministry of National Economic and Social Development.

### Data Entry and analysis

All 550 surveys submitted by enumerators were reviewed for completeness and then submitted for data entry. 2 data entry personnel were recruited to create the data base and enter data into SPSS 22.0. Once data entry was completed the data base was reviewed for quality and completeness and tables were generated using univariate and bivariate analysis.

All interviews recorded during the qualitative data gathering process were transcribed verbatim. Transcripts were coded and analysed.

## 3.0 Presentation and Analysis of Findings

This section presents key findings on respondents' knowledge on climate change, attitudes towards climate change and practices to address climate change as well as media use. The findings from the quantitative survey are presented and analysed, followed by a presentation of the findings from the qualitative component of the study.

### 3.1 Presentation and Analysis of Findings from Quantitative Survey

#### 3.1.1 Demographic Variable

A total of 550 persons from 10 communities took part in the survey. 9% of respondents were from Vermont, 10.5% from Union Island, 8.9% from Cane Grove and Pembroke, 9% from Rose Park and Dark View, 9.4% from Buccament Bay, 9.3% from Colonaire, 7.6% from Langley Park, 9% from Sandy Bay, 18% from Marriagua and 8.9% from Bequia.

Adult male and females 25-54 years represented 56.4% of the population surveyed while youth 18-24 years represented 20% and adults over 55 years represented 23.6% of the population surveyed.

There was a fairly equal distribution of male (48.5%) and females (51.5%) as this was a requirement of the survey.

The largest percentage of respondents (28.7%) were unemployed while Domestic Workers accounted for 12.5% of those surveyed, agriculture, forestry, fisheries workers 9.5%, Manager/Supervisor/Business men/women 6.7%, Professionals 1.8%, Students 7.3%, Technicians 3.6%, Service and Sale workers 8.9%, Armed forces 2.2% ,and Craft and related trade workers 4%.

The majority of respondents 69.8% have lived in their community all their lives while 16.7% have lived there 6 – 10 years. Only a very small percent (5.4%) have lived in the community for 5 years or less.

29.3 % of respondents possess a Primary Education while 43.3% possess a Secondary Education, 15.8% Possess an Associate's Degree and 5.6% possess a Bachelor's Degree or higher.

The majority of homes (64.4%) are either situated near a river, coastline, low-lying areas or on or near a steep incline. These are more vulnerable to climate related hazards than the 35.5% of homes not situated near to a river-side, coastline, and low lying area or on steep incline. These homes are owned by the majority of occupants (68.2%) and the vast majority are constructed from zinc/metal roofing (96.5%) and concrete outer walls (76.2%).

Despite the obvious threats of climate related hazards, the majority of respondents (67.8%) do not have home insurance. Only 14.4% reported that their homes were insured while 17.8% did not know or were not sure. Of the 14.4% who had home insurance 46% had insurance against

hazards while 35.4% had no hazard insurance and 18.6% did not know or were not sure if they were insured against hazards.

Demographic Variable	Response Option	Total N= 550
Location	Vermont	50 (9%)
	Union Island	58 (10.5%)
	Cane Grove/Pembroke	49 (8.9%)
	Rose Bank/Dark View	50 (9%)
	Buccament Bay	52 (9.4%)
	Colonaire	51 (9.3%)
	Langley Park	42 (7.6%)
	Sandy Bay	50 (9%)
	Marriaqua	99 (18%)
	Bequia	49 (8.9%)
Age	18 to 24 years	110 (20%)
	25-40 years	200 (36.4%)
	41-54 years	110 (20%)
	55 to 70 years	97 (17.6%)
	Older than 70 years	33 (6%)
Gender	Female	283 (51.5%)
	Male	267 (48.5%)
Occupation	Domestic Worker	69 (12.5%)

Demographic Variable	Response Option	Total N= 550
	agriculture, forestry, fisheries worker	52 (9.5%)
	Manager/Supervisor/Business man/woman	37 (6.7%)
	Professional	65 (11.8%)
	Student	40 (7.3%)
	Technician	20 (3.6%)
	Service/Sales worker	49 (8.9%)
	Armed forces	12 (2.2%)
	Craft and related trade worker	22 (4%)
	Unemployed	158 (28.7%)
	Clerical Support worker	23 (4.2%)
	Other	3 (.5%)
	Years living in community	Less than a year
1-5 years		20 (3.6%)
6-10 years		44 (18.0%)
10-20 years		92(16.7%)
All my life		384 (69.8%)
Level of Education	Primary Education	161 (29.3%)
	Secondary Education	238 (43.3%)
	Associate's Degree	87 (15.8%)

Demographic Variable	Response Option	Total N= 550
	Bachelor's Degree or Higher	31 (5.6%)
	Other	24 (4.4%)
	No Response	9 (.6%)
Household size	Live alone	50 (9.1%)
	Less than 5 persons	297 (54.0%)
	5 to 10 persons	183 (33.3%)
	More than 10 persons	20 (3.6%)
Location of home	Not situated near to a river-side, coastline, and low lying area or on steep incline	195 (35.5%)
	Situated near river	105 (19.1%)
	Situated near coastline	74 (13.5%)
	Situated near low-lying areas	84 (15.3%)
	Situated near steep incline	92 (16.7%)
Roofing Materials	Zinc/metal	509 (92.5%)
	Concrete roofing	23 (4.2%)
	Thatch roofing	1 (.2%)
	Make Shift	2 (.4%)
	Rubber Rye	2 (.4%)
	Other	13 (2.4%)
Outer Walls	Wood	27 (4.9%)

Demographic Variable	Response Option	Total N= 550
	Wood and concrete	59 (10.7%)
	Concrete	419 (76.2%)
	Thatch	1 (.2%)
	Plywood	28 (5.1%)
	Sheet metal	2 (.4%)
	Brick	14 (2.5%)
Home ownership	Own	375 (68.2%)
	Rent	51 (9.3%)
	Lease	13 (2.4%)
	Other	111 (20.2%)
Home insurance	Yes	79 (14.4%)
	No	373 (67.8%)
	Don't know/Not sure	98 (17.8%)
Home insured against climate related hazards ((from the number of persons who have insurance) N=79	Yes	36 (46%)
	No	28 (35.4%)
	Don't Know/Not Sure	15 (18.6%)

Table 2.0 Demographic of participants

### 3.1.2 Knowledge on Climate Change

This section presents findings on respondents’ knowledge on climate change. It includes responses on respondent’s general knowledge on climate change as well as respondents understanding of factors contributing to or associated with climate change.

The majority of respondents are familiar with the term climate change. 93.8% of respondents have heard the term climate change before. Only 6.2% of respondents reported that they have never heard the term climate change before.

Knowledge Variable	Response Options	Frequency	Percent
Have You heard the term climate change?	Yes	516	93.8%
	No	34	6.2%
	Total	550	100%

Table 3.0 Have heard the term climate change

The majority of respondents do not know the exact meaning of the term climate change. When asked what the term climate change means, respondents tended to explain the changes they see resulting from climate change rather than expressing a comprehensive understanding of the meaning of climate change. The majority of respondents (69.3%) said that climate change meant changes in weather pattern or weather conditions. Other responses included changes in temperature, changes in the environment, and global warming. It is clear that they understand that climate change brings about changes in weather, temperature, etc. However, they were not able to demonstrate a comprehensive understanding of the meaning of climate change. 25.3% indicated that they did not know the meaning.

Knowledge Variable	Responses	Frequency	Percent
What does the term climate change mean?	Changes in weather patterns/conditions	381	69.3%
	Changes in temperature	3	.5%
	Changes in the environment	6	1.1



	Global Warming	2	.4
	Don't know/Not Sure	139	25.3%
	Other	19	3.5%

Table 4.0 what does the term climate change mean

The majority of respondents are aware of several of the major changes associated with climate change. These are perhaps the changes that have been most visible to them and which they have experienced most. The top 5 changes noted by respondents included; changing weather patterns ( 89.8%), flooding ( 85.6%), landslides ( 81.0%), sea level rise ( 73.8%) and erosion along the coast (70.9%).

These top 5 changes that respondents associated with climate change were followed closely by the following three changes; stronger and more frequent storms (66.4%), increase in sea surface temperature (64.0%) and increase in air temperatures (63.6%).

When compared to the top 5 changes noted, a significantly lower percentage of respondents identified other changes such as differences in seasonality of crops, increase in insect pest and decrease in fish stock. Interestingly, more respondents identified melting of the ice caps at the poles as a change associated with climate change as opposed to differences in seasonality of crops, increase in insect pest and decrease in fish stock which were occurring locally. 61.1% of respondents noted that melting of the ice caps at the poles were associated with climate change while 59.1% indicated difference in seasonality of crops, 52.7% indicated decrease in fish stock and 49.8% indicated increase in insect pest as changes associated with climate change.

Knowledge Variable	Response Options	N=550
Changing weather patterns	Yes	494 (89.8%)
	No	6 (1.1%)
	Don't Know/Not Sure	50 (9.1%)
Increase in sea surface temperature	Yes	352 (64.0%)
	No	34 (6.2%)

Knowledge Variable	Response Options	N=550
	Don't Know/Not Sure	164 (29.8%)
Stronger and more frequent storms	Yes	365 (66.4%)
	No	88 (16.0%)
	Don't Know/Not Sure	97 (17.6%)
Sea Level Rise	Yes	406 (73.8%)
	No	31 (5.6%)
	Don't Know/Not Sure	113 (20.5%)
Erosion along the coast	Yes	390 (70.9%)
	No	42 (7.6%)
	Don't Know/Not Sure	118 (21.5%)
Increase in air temperatures	Yes	350 (63.6%)
	No	29 (5.3%)
	Don't Know/Not Sure	171 (40.1%)
Landslides	Yes	446 (81.0%)
	No	32 (5.8%)
	Don't Know/Not Sure	72 (13.1%)
Flooding	Yes	471 (85.6%)
	No	15 (2.7%)
	Don't Know/Not Sure	64 (11.6%)

Knowledge Variable	Response Options	N=550
Differences in seasonality of crops	Yes	325 (59.1%)
	No	57 (10.4%)
	Don't Know/Not Sure	168 (30.5%)
Increase in insect pests	Yes	274 (49.8%)
	No	88 (16.0%)
	Don't Know/Not Sure	188 (34.2%)
Decrease in fish stock	Yes	290 (52.7%)
	No	92 (16.7%)
	Don't Know/Not Sure	168 (30.5%)
Melting of the ice caps at the poles	Yes	336 (61.1%)
	No	25 (4.5%)
	Don't Know/Not Sure	189 (34.4%)

Table 5.0 Changes associated with climate change

While respondents are aware of climate change and some of the major changes associated with climate change, they demonstrated a limited understanding of what was causing climate change. It is clear that some respondents understand those issues at the community level that are contributing towards greenhouse gas emission. However, there appears to be a lack of comprehensive understanding of the major contributing factors at the global and national level.

The answer that was most popular, although only selected by a little more than half of the respondents, was deforestation (cutting down trees and mangroves). This was followed by improper garbage disposal (44.5%) and burning of fossil fuels such as coals, oils and natural gases (43.8%). Interestingly, only 9.5% of respondents selected electricity generation as a contributing factor to climate change while only 35.5% selected poor industrial practices. 18.4% still believe that it is an act of the creator.

Knowledge Variables	N=550
Burning fossil fuels such as coals, oils and natural gases	241 (43.8%)
Transportation such as driving a car, bus or boat ( vehicle emission)	174 (31.6%)
Deforestation (Cutting down trees and mangroves)	301 (54.7%)
Poor Industrial Practices	195 (35.5%)
Electricity Generation	52 (9.5%)
Improper garbage disposal	245 (44.5%)
Natural Occurrence	131 (23.8%)
Acts of the creator	101 (18.4%)
Don't Know/Not Sure	35 (6.5%)

Table 6.0 Causes of climate change

Respondents are aware that climate change is affecting Saint Vincent and the Grenadines. The majority of respondents (79.1%) indicated that climate change is affecting their communities. Only 4.4% said that climate change was not affecting their communities while 16.5% did not know or were not sure if climate change was affecting their communities.

Knowledge Variable	Response Options	Frequency	Percent
Is Climate change affecting your community?	Yes	435	79.1%
	No	24	4.4%
	Don't Know/Not Sure	91	16.5%
	Total	550	100%

Table 7.0 Climate change affecting the community

Changing weather patterns, flooding and landslides were the top three changes that have been affecting communities over the past 10 years. 91.3% of respondents indicated that their communities has been affected by changing weather patterns, 88.2% indicated that their communities has been affected by flooding and 82% indicated that their community has been affected by landslides.

These are consistent with the top three changes participants associated with climate change. This demonstrates that they are able to associate the more prominent changes in their communities to climate change. However, significantly less respondents indicated that their communities have been affected by erosion along the coast (62.2%), seal level rise (63.3%), stronger and more frequent storms (58.5%), and increase in air temperature (57.5%).

The changes least noted by respondents include; increase in sea surface temperature (46.7%), difference in seasonality of crops (56.5%) , increase in insect pest (45.5%), decrease in fish stock (43.5%), and increase in vector/water borne diseases (50.2%)

Knowledge Variable	Response Options	N=550
Changing weather patterns	Yes	502 (91.3%)
	No	10 (1.8%)
	Don't Know/Not Sure	38 (6.9%)
Increase in sea surface temperature	Yes	257 (46.7%)
	No	96 (17.5%)
	Don't Know/Not Sure	197 (35.8%)
Stronger More frequent storms	Yes	322 (58.5%)
	No	120 (21.8%)
	Don't Know/Not Sure	108 (19.6%)
Sea Level Rise	Yes	350 (63.6%)
	No	89 (16.2%)
	Don't Know/Not Sure	111 (20.2%)

Knowledge Variable	Response Options	N=550
Erosion along the coast	Yes	342 (62.2%)
	No	93 (16.9%)
	Don't Know/Not Sure	115 (20.9%)
Increase in air temperatures	Yes	316 (57.5%)
	No	51 (9.3%)
	Don't Know/Not Sure	183 (33.3%)
Landslides	Yes	451 (82.2%)
	No	37 (6.7%)
	Don't Know/Not Sure	62 (11.3%)
Flooding	Yes	485 (88.2%)
	No	17 (3.1%)
	Don't Know/Not Sure	48 (8.7%)
Differences in seasonality of crops	Yes	311 (56.5%)
	No	65 (11.8%)
	Don't Know/Not Sure	174 (31.6%)
Increase in insect pests	Yes	250 (45.5%)
	No	97 (17.6%)
	Don't Know/Not Sure	203 (36.9%)
Decrease in fish stock	Yes	239 (43.5%)

Knowledge Variable	Response Options	N=550
	No	(2.1%)
	Don't Know/Not Sure	195 (35.5%)
Increase in vector borne/water borne diseases	Yes	276 (50.2%)
	No	84 (15.3%)
	Don't Know/Not Sure	190 (34.5%)

Table 8.0 Changes affecting the community

### 3.1.3 Attitude to Climate Change

This sub-section presents findings on respondents' attitudes towards climate change. It includes findings related to respondents' level of concern, their perception on actions that communities can take to prevent or lessen the impact of climate change, their perception on actions being taken by national and community leaders and their willingness to take action to prevent or lessen the impact of climate change.

It is encouraging to note that the majority of respondents expressed concern about climate change. 88.8% of respondents were either very concerned or somewhat concerned about climate change. Only 2.9% of respondents indicated that they were not concerned about climate change while 8.4% indicated that they weren't sure or did not know how they felt about climate change.

Attitude Variable	Response Options	Frequency	Percent
How concerned are you about climate change?	very concerned	304	55.3
	somewhat concerned	184	33.5
	not concerned	16	2.9
	don't know/not sure	46	8.4
	Total	550	100.0

Table 9.0 Level of concern

An interesting finding is that two of the top three recommended actions that can help communities to prevent or lessen the impact of climate change focused on community education and awareness and community participation. 89.9% of respondents felt that it was very important or somewhat important to increase public awareness on climate change issues. 85.8% felt that it was very important or somewhat important to encourage and promote community participation and 85.6% felt that it was very important or somewhat important to increase reforestation.

Development of disaster management plans and discouraging construction of new settlements along the coast/relocate vulnerable communities were the next two actions that were viewed favourable by respondents. 73.1% felt that it was very important or somewhat important to discourage construction of new settlements along the coast/ relocate vulnerable communities while 72.7% felt that development of disaster management plans were very important or somewhat important.

Building structures along the coast and conserving energy and natural resources were the two actions viewed least favourable by respondents. Building structures along the coast was the action that was identified as not important by more respondents than any of the other proposed actions. 20.7% of respondents felt that it was not important to build structures along the coast which was significantly less than the percentage of respondents that indicated not important indicated for all other actions.

Do you think the following are important in helping the community to prevent or lessen the impact of climate change?				
	Not important	Somewhat important	Very important	Don't know/Not sure
Comply with environmental laws	21 (3.8%)	88 (16.0%)	355 (64.5%)	85 (15.6%)
Build structures to protect the coast	114 (20.7%)	94 (17.1%)	256 (46.5%)	86 (15.6%)
Conserve energy and natural resources	27 (4.9%)	148 (26.9%)	273 (49.6%)	102 (18.5%)
Encourage water conservation and reuse	25 (4.5%)	95 (17.3%)	352 (64.0%)	78 (14.2%)



Discourage construction of new settlements in coastal areas/relocation of vulnerable coastal communities	59 (10.7%)	116 (21.1%)	284 (51.6%)	91 (16.5%)
Decrease deforestation	25 (4.5%)	95 (17.3%)	352 (64.0%)	78 (14.2%)
Increase reforestation	11 (2.0%)	83 (15.1%)	388 (70.5%)	68 (12.4%)
Increase public awareness on climate change issues	8 (1.5%)	90 (16.4%)	404 (73.5%)	48 (8.7%)
Encourage and promote community participation	12 (2.2%)	105 (19.1%)	367 (66.7%)	66 (12.0%)
Disaster Management plans	10 (1.8%)	97 (17.6%)	305 (55.5%)	138 (25.1%)

Table 11.0 importance of action to help prevent or lessen impact of climate change

There were mixed opinions on whether actions were being taken by community leaders, central government and community members at the community level to prevent or lessen the impact of climate change. Overall, the percentage of persons who feel that any of the actors above are taking action was significantly low. This could signal a lack of awareness and low visibility of actions that are being taken or that specific actions are not being taken at the community level.

36.2% of respondents strongly disagreed or disagreed that community leaders were taking action while 38.7% agreed or strongly agreed that community leaders were taking action.

23.6% of respondents strongly disagreed or disagreed that central government was taking actions while 47% agreed or strongly agreed that central government was taking action.

39.1% strongly disagreed or disagreed that community members were taking action while 35.1% agreed or strongly agreed that community members were taking action.

It is encouraging to note that the majority of respondents, 78.7%, indicated that they are prepared to do whatever it takes to help to preserve their environment in responding to climate change. Equally encouraging is that 61.6% of respondents disagree or strongly disagree that there is nothing a small country like Saint Vincent can do about climate change. However, it is important to note that over 30% of respondents agree, strongly agree, don't know or are not sure if there is something the country can do about climate change. This is a very important attitude to address as it may be a motivating factor for inaction amount the percentage of the population that share this opinion.

State your level of agreement with the following statements						
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know/Not Sure
Community Leaders are taking action to address the impact of climate change on communities	85 (15.5%)	114 (20.7%)	73 (13.3%)	146 (26.5%)	67 (12.2%)	65 (11.8%)
Central Government is taking action to address the impacts of climate change on communities	54 (9.8%)	76 (13.8%)	103 (18.7%)	200 (36.5%)	58 (10.5%)	59 (10.7%)
Community members are taking action to address the impacts of climate change on the community	84 (15.3%)	131 (23.8%)	72 (13.1%)	137 (24.9%)	56 (10.2%)	70 (12.7%)
I am prepared to do whatever I can to help preserve the environment	13 (2.4%)	12 (2.2%)	56 (10.2%)	245 (44.5%)	188 (34.2%)	36 (6.5%)
There is nothing a small country like SVG can do about climate change	246 (44.7%)	93 (16.9%)	36 (6.5%)	63 (11.5%)	53 (9.6%)	59 (10.7%)

Table 12.0 Actions taken by community leaders, central government and community members

Another encouraging finding is that over 50% of respondents indicated that everyone is responsible for addressing climate change in SVG. This was followed by 30.5% of respondents who felt that the government was responsible. This finding is helpful in engaging communities in actions to prevent or lessen the impact of climate change and the majority appear to feel that they should take some level of responsibility for responding to climate change.

Equally encouraging, as depicted in Table 14.0, is that 77.3% of respondents indicated that they were very interested or somewhat interested in finding out more about climate change. Only 12.7% indicated that they were not interested in finding out more about climate change.

Attitude Variable	Response Options	Frequency	Percent
Who do you think is mainly responsible for addressing climate change in SVG?	Government	168	30.5%
	business/industry	10	1.8%
	community organizations	1	.2%
	private citizens	1	.2%
	Everyone	315	57.3%
	United Nations	3	.5%
	Industrialized countries	1	.2%
	Don't know/not sure	51	9.3%
	Total	550	100%

Table 13.0 who is mainly responsible

Attitude variable	Response Options	Frequency	Percent
Are you interested in finding out more about the impact of climate change on SVG?	very interested	193	35.1
	somewhat interested	232	42.2
	not interested	70	12.7
	don't know/not sure	55	10.0
	Total	550	100.0

Table 14.0 interest in finding out more about climate change

### 3.1.4 Practices related to Climate Change

This sub-section present findings related to community practices to prevent or lessen the impact of climate change. It presents finding on actions taken by communities, actions taken by government and barriers to action by the community.

Very little action is being taken by individuals and communities to prevent or lessen the impact of climate change. 38.5% of respondents indicated that no actions were being taken while 34.5% of respondents indicated that actions were being taken. 26.9% of respondents did not know or were not sure if actions were being taken. This is consistent with the findings outlined in Table 12.0 where limited actions were noted by respondents. Again, this is can be an indication that individuals are not aware of actions that are being taken as actions are not very visible or an indication that actions are not being taken.

Practice Variable	Response Options	Frequency	Percent
Have you or your community taken any actions to prevent or lessen the impact of climate change?	yes	190	34.5
	no	212	38.5
	don't know/not sure	148	26.9
	Total	550	100.0

Table 15.0 have you or your community taken action

The above finding is further demonstrated in Table 16.0 which indicates that from those who are aware of actions being taken by individual and communities, the percentage who can state what actions are being taken are significantly low. Of the 34.5% of respondents who indicated that actions were being taken, only 56.8% were aware of actions targeting proper waste disposal/composting, 46.3% were aware of actions to increase reforestation and 37.3% were aware of actions to decrease deforestation.

Only 24.2% were aware of actions geared towards water harvesting, 22.1% aware of actions to raise awareness, and 20.5% aware of actions being taken to reuse/recycle and conserve energy. The action that the least percentage of respondents were aware of include; building sea wall, observing building codes, mangrove conservation, carpooling/taking public transportation, and disaster management plans.

Practice variable	N=190
Water Harvesting	46 (24.2%)
Observe Building codes	34 (17.8%)
Building sea walls	13 (6.8%)
Mangrove conservation	31 (16.3%)
Reforestation (planting trees)	88 (46.3%)
Proper waste disposal/composting	108 (56.8%)
Conserve energy	39 (20.5%)
Carpooling/taking public transportation	23 (12.1%)
Reuse/recycle waste	39 (20.5%)
Raise awareness	42 (22.1%)
Not cutting down trees/forests	71 (37.3%)
Disaster management plans	29 (15.2%)

Table 16.0 Actions being taken by the community

A slightly higher percentage of respondents indicated being aware of actions being taken by the government or other organizations when compared to actions being taken by individuals and communities. However, the percentage of those who are aware of actions, 39.5%, is still significantly low. 28.9% of respondents indicated that there were no actions being taken by government or other organizations while 31.6% did not know or were not sure if actions were being taken.

Practice Variable	Response Options	Frequency	Percent
Has the government or other organizations taken action to lessen or prevent the impact of climate change?	Yes	217	39.5
	No	159	28.9
	Don't Know/Not Sure	174	31.6
	Total	550	100.0

Table 17.0 has government or other organizations taken action

Increase in public awareness of climate change issues and establishment of flood warning systems are the actions being taken that were most visible to respondents. Of the 39.5% of respondents that were aware of actions being taken by government or other organizations 70.9% were aware of actions being taken to establish flood warning systems while 61.7% were aware of actions to increase public awareness of climate change issues. This was followed by 48.2% who were aware of actions being taken to enforce building codes and 42.3% that were aware of actions being taken to establish early warning systems for health related impacts such as Dengue.

The actions that respondents were least aware of government and other organizations taking included; implement energy efficient measures in the industrial and commercial sectors (11.0%), reducing the use of fossil fuel (17.9%), increase research and development of renewable technologies (22.5%), and provide support to the agriculture sector (34.5%).

<b>Actions taken by government or other organizations to lessen impact of climate change in the community</b>	<b>N=217</b>
Reduce use of fossil fuel ( coal, oil, natural gas)	39 (17.9%)
Implement energy efficient measures in the industrial and commercial sectors	24 (11.0%)
Increase research and development of renewable technologies	49 (22.5%)
Provide support to agriculture sector to improve crop performances	75 (34.5%)

Increase public awareness of climate change issues	134 (61.7%)
Early warning systems for health related impacts( such as dengue)	92 (42.3%)
Flood warning systems	154 (70.9%)
Enforce building codes	105 (48.3%)

Table 18.0 Actions being taken by government and other organizations

Although some actions are being taken by individuals and communities to prevent or lessen the impact of climate change , respondents reported that they are not taking more actions because they do not have enough information or are not aware of what actions should be taken. 38.2% indicated that they do not have enough information to take actions while 27.8% reported that they do not know what actions they should be taking. It is encouraging to note that only 4.9% of respondents indicated that it is not their responsibility to take action while only 3.6% stated that they were not taking action because climate change was not a concern in their community.

Practice Variable	Response Options	Frequency	Percent
If you or your community have not taken any action, what has prevented you from taking action to prevent or lessen the impact of climate change on your community?	not enough information	210	38.2
	not aware of what actions can/should be taken	153	27.8
	climate change is not a concern of the community	20	3.6
	it is not our responsibility to take action	27	4.9
	Other	15	2.7
	no response	125	22.7
	Total	550	100.0

Table 19.0 Reasons for not taking action

### 3.1. 5 Media Use

This sub-section presents findings on media use among respondents. It includes findings on exposure to information on climate change, preferred media of respondents, and effective channels for reaching communities.

Just under 90% of respondents have read, listened to or watch stories on climate change. However, only 22.7% do so very often while 32.5% does so occasionally. 34.7% rarely read, listened to or watches stories on climate change. Only 6.5% of respondents indicated that they have never read, listened to or watched stories on climate change.

It is also encouraging to note that there is a high level of interest in information and features on climate change. Table 21.0 indicates that the majority of respondents, 82.5% are interested in reading, listening to or watching stories on climate change.

Media use variable	Response Options	Frequency	Percent
How often do you read/listen to/watch stories on climate change?	very often	125	22.7
	occasionally	179	32.5
	rarely	191	34.7
	never	36	6.5
	Don't Know/Not Sure	19	3.5
	Total	550	100.0

Table 20.0 how often respondents read/listen to/watch stories on climate change



Media Use variable	Response Options	Frequency	Percent
Would you like to read/watch/listen to stories on climate change?	yes	454	82.5
	no	46	8.4
	don't know/not sure	50	9.1
	Total	550	100.0

Table 21.0 Interest in stories on climate change

The majority of respondents get their information from television. 69.3% of respondents indicated that they got their information on climate change from television. The websites/internet was a distant second choice as only 11.5% of respondents indicated that they got their information from websites/internet while radio was a distant third as 10.2% of respondents indicated that they got their information from radio. The other options provided such as schools, family and friends, government organizations, community groups, pamphlets, posters, brochures etc. did not yield a significant response as under 1% of those surveyed selected these as the source of their information in climate change. This is an important finding as information is being disseminated through all the channels stated. However, dissemination of information through television appears to be the most effective.

Media Use Variable	Response Options	Frequency	Percent
Where do you get your information on climate change?	Television	381	69.3
	Schools	2	.4
	friends/family	1	.2
	faith-based organization	1	.2
	government organizations	1	.2
	radio	56	10.2
	newspaper	7	1.3

	website/internet	63	11.5
	community groups	5	.9
	pamphlets/brochures	1	.2
	posters	2	.4
	videos	1	.2
	I get no info on climate change	11	2.0
	others	4	.7
	no response	14	2.5
	Total	550	100.0

Table 22.0 source of information on climate change

Table 23.0 confirms that respondents deem television as the most effective channel for receiving information on climate change in their community. 73.5% indicated that television was the most effective way to get information on climate change to their community.

This was followed by radio. Although the difference was significant. Only 14.7% identified radio as the most effective way to get information on climate change to their community.

Media Use Variable	Response Option	Frequency	Percent
Which is the most effective ways to get information on climate change to your community?	television	404	73.5
	friends/family	2	.4
	government organizations	1	.2
	radio	81	14.7
	newspaper	9	1.6
	website/internet	25	4.5

	community groups	6	1.1
	lectures/workshops	7	1.3
	pamphlets/brochures	1	.2
	posters	1	.2
	no response	13	2.4
	Total	550	100.0

Table 23.0 most effective channel of communication

The majority of respondents have access to television. 88.0% of respondents indicated that they own or have access to a television.

Media Use Variable	Response Options	Frequency	Percent
Do you own or have access to a television?	yes	484	88.0
	no	66	12.0
	Total	550	100.0

Table 24.0 Access to television

75.9% of respondents indicated that they have access to the internet all the time or sometime.

Media Use Variable	Response Option	Frequency	Percent
Do you have access to the internet?	yes	349	63.5
	sometimes	68	12.4
	no	133	24.2
	Total	550	100.0

Table 25.0 Access to internet

## 3.2 Presentation and Analysis of Findings from Qualitative Survey

4 focus groups, with a total of 49 participants were held in Marriagua, Vermont, Sandy Bay and Bequia. Participants included adult male, adult females and youth from the communities. Communities were selected based on their vulnerability to climate related events. Additionally 11 Key Informant interviews were also conducted with representatives from the Ministry of Agriculture, Forestry, Fisheries and Rural Transformation, Ministry of National Mobilisation, Social Development, Family, Gender Affairs, Persons With Disabilities and Youth, the SVG Red Cross, the Ministry of Tourism, Sports and Culture, the National Rivers, Parks and Beaches Authority, Central Water and Sewerage Authority, the National Emergency Management Organization, the Interamerican Institute for Cooperation on Agriculture (IICA) and personnel responsible for national climate change response within the Ministry of Economic Planning, Sustainable Development, Industry, Information and Labour.

Qualitative information from these discussions have been analysed and utilized to inform this section of the report.

### 3.2.1 Knowledge about Climate Change

The majority of participants in the focus groups have heard the term climate change. Climate change is not a part of their daily vocabulary, although one participant reflected that it is now becoming a part of their vocabulary. Participants understand the concept of climate change in its broadest sense and, like findings from the survey, they do not have comprehensive knowledge of climate change and what is causing climate change. Representatives from several agencies have indicated that climate change has been recently mainstreamed into their community awareness and education efforts. Before, the focus had been only on disaster preparedness and management.

*“..... I don't think everybody understands what climate change is. Until you talk to them and ask them what are the changes they have seen overtime. You will have to tell that these are signs of climate change. I don't think that much people talk about climate change”.* Male participant, Sandy Bay

*“ I am not sure that the communities understand what climate change is. I think the discussion is still too top down. We are not seeing people in the communities speak about climate change. They are feeling it but they do not know that it is climate change.”* Representative from NEMO

Even though climate change is not a popular term, change is a very common term used in communities. Participants understand that many changes are occurring and many identify 2009/2010 as a turning point in SVG where climate related events are concerned. Participants in every community can express clearly the changes they are seeing and experiencing as a result of climate change. Although persons and communities are impacted differently, they all agree that

climate change is impacting their daily lives and livelihoods. As stated aptly by one participant from Sandy Bay, *“Everybody is affected, whether directly or indirectly”*.

The changes that have been observed and experienced by the communities include; changes in weather patterns, hurricanes, changes in the environment, global warming, sea level rise, coastal erosion, increase in rain fall, increase in airborne diseases, landslides, flooding and changes in atmospheric pressure. Participants expressed that the changes are “obvious” and that some of the events have increased in intensity. Many are able to describe these changes very vividly.

*“We have actually seen beaches disappear”*. Youth Participant, Bequia

*“... I have noticed the intensity and extreme weather and flooding. The rivers use to be consistent on a particular level, always having water but they have dropped immensely and when the rain fall is intense the river becomes dangerous. It shows that something is happening in the mountains”*  
Female Participant, Marriacqua

*“... when you look back 2-3 year it was dry and now that the rain is coming in it makes you wonder what is going to happen the next year and if it’s going continue to happen and if it’s going to go back to how it was like last year.....we also hear about a lot of diseases and airborne diseases. We have different types of mosquito coming in causing different sicknesses”* Youth Participant, Bequia

*“The weather is unpredictable weather. There is extreme changes in the weather pattern, there is flooding and droughts. These changes are more intense”* Male Participant, Marriacqua

*“... even the weather patterns ..... for example the dry season and the rainy season. Not a distinct dry period or wet period. For this year we had a lot of rain, heavy rain fall for longer period”*. Female participant, Vermont

The changes caused by climate related events are affecting all communities. Daily lives are being disrupted as well as livelihoods. Participants were able to express the many ways in which their daily lives are being affected and disrupted. Homes and properties are being destroyed, many families are forced to remain in shelter for extended periods, movement is often restricted as roads and bridges are damaged during severe events, small farms that supplement income for many families are destroyed, and families have to relocate.

During the focus group in Sandy Bay, participants were able to recount their experiences from the major landslides that had recently affected the community. One participant recalls evacuating his family minutes before his entire home was swept away by flood waters from the mountain. Another explained that she lost everything, including her home and is now living with relatives in the community. One participant expressed the very real scenario that they were facing *“The mountains are coming down on top of us and the ocean is coming toward us...what are we to do?”*  
Male Participant, Sandy Bay

In the tourism sector, although the impact on infrastructure has been significant, tourist arrival has not yet been impacted. The Ministry of Tourism reports that the number of tourists arriving

has not declined. Participants in Bequia have also expressed that they have not experienced a decline in tourist activities.

However, while livelihoods are not yet being significantly impacted, tourism resources, which are key to the future of the industry are being impacted. *“Most of the establishments are on the coast and the popular tourism sites are in the interior so the impact is tremendous, especially when it comes to the sites.”* Representative from the Ministry of Tourism. Representatives from the Ministry of Tourism explained that over a million dollars has been invested to repair damages sustained to one of the country’s major waterfalls. The site continues to be impacted by climate related events and remains closed to date. Two more popular sites which experienced damages repeatedly have now been closed. Along the coast, there is visible erosion which could also impact tourist arrival if the situation continues.

The sector that has been most affected by climate related events is the agriculture sector. Agriculture is the main stay of the island with root crops, bananas and fruits and vegetables being the three main export crops. Many communities depend on farming for their livelihood. Changing weather patterns resulting in extended drought as well as heavy rains and flooding have significantly impacted farmers in recent years and farmers are acutely aware that these changes have become a reality for them. There is now increasing knowledge about climate change among farmers through efforts by the Ministry of Agriculture and other organizations working with farmers. However, representative from a few organizations interviewed are of the view that comprehensive knowledge about climate change and how it will impact them is still lacking.

*“I get the sense from interacting with farming communities across the country that although they would have heard many many times about climate change and how it is going to affect countries that we still need to get down into the communities and have a conversation in a real way with them about how climate change is going to affect them and their livelihood on a personal level”*  
Representative from IICA

Even though farmers may not yet be able to make a direct connection between the changes they see occurring and climate change, they are aware that these changes are significantly impacting their livelihoods.

*“The greatest challenge we face is the drought and the trough. When the drought is over and we have heavy rains then it is constant erosion of our farms. Just this last trough that passed through, I had just planted 128 tomato seedlings and I was surprised that the water just moved the farrow and just washed away all the top soil. So these are some of the problems”.* Farmer, Langley Park

*“The destruction of our farm roads in this area is so bad that we can only reach to a certain part. All the roads are damaged and it will take a lot out of the government to do repairs to these farm roads. 2017 will be a challenging year for farmers. You can only access the farms by foot and for those who have produce they would try to use wheel barrows to bring out the products. We usually have damage but this is the worse. The first that I have seen it so bad. All the farm roads in Langley Park are damaged”* Farmer, Langley Park

*“Most people are not able to bounce back from the impacts of climate related events. When there is a disaster and you get damaged, there is no extra nothing anywhere that you can use to start all over again. Most of us have to sit and wait for a handout. At times it really, really hurts because farming is very tedious and when you put in all your effort and then at the end of the day you have nothing to show ....”* Female Farmer

The water sector has also been impacted by climate related events. Although the population has not been significantly affected by water shortage, the supply capacity of the Central Water and Sewage Authority continues to be affected. Representatives from CSWA noted that continuous drought experienced by the island results in a decrease of river flows while heavy rains results in increase of surface run off, therefore decreasing water quality due to an increase in sediment loads. An increase in rains also cause damage to the upper water sheds where all of CSWA’s water intakes are located resulting in the need for the company to increase treatment of potable water.

### 3.2.2 Attitudes towards climate change

Based on the experiences with climate related events over the past few years, almost everyone on the island have come to understand and accept that the changes they are experiencing have become permanent and they will have to adapt to these changes. Most individual, agencies and communities have demonstrated a high level of concern. However, there are some individuals whose level of concern appears to be lower than expected given the current realities.

The Government of Saint Vincent and the Grenadines has demonstrated this concern through increased investments in adaptation and mitigation actions in several sectors. In sectors most affected, such as the agriculture sector, the efforts are continuous. One stakeholder noted that the government has demonstrated in the recent budget debate that it is cognizant of the need for increased investment to enhance adaptation and mitigation efforts.

Agencies working at the policy as well as the community level also expressed a high level of concern and have been making efforts to mainstream climate change into all areas of their work.

*“ ....we understand that change is rapidly being thrust upon us and in that regard we need to collaborate with other agencies to develop a broader strategy specifically for climate change”* Representative from IICA.

Participants in the community level focus groups also expressed a high level of concern. However, there were varying levels of concern among individuals at the community level. Focus group participants expressed that there is still a significant level of apathy from many individuals in their communities. Many expressed that individuals are only concerned when there is an event. However, although events continue to occur, the level of concern is not sustained during periods when there are no events occurring. This can be noted from the daily actions of those individuals.

*“ They are concerned, but they are concerned whenever there is a disaster but apart from that they go back to the norm”* Female Participant, Marriagua

*“ I don’t think people take it seriously....: I think we have become accustomed to it and when people become accustom to something we sort of forget, that’s what it is, that’s what it will be”*. Female Participant, Sandy Bay

*“Even though you talk to people they don’t listen. For example the areas where the houses keep washing away, people still go back and build there”* Female Participant, Vermont

*“Some believe it’s the responsibility of the Government, when it’s actually ours”* Female participant, Vermont

Stakeholders working at the community level expressed great optimism that this will change with continued community awareness and education, dialogue and engagement. Representative from the Red Cross expressed that the concern among communities are high and they are realizing that this is something that will continue to occur. He felt that stakeholders needed to be sensitive to the community dynamics and allow communities to lead the process. He stated that the importance of engaging communities, dialoguing with them and involving them cannot be over emphasized.

The level of concern was greatest among those in the agriculture and tourism sector. This is because livelihoods are directly affected by climate related events. The level of concern was higher in the agriculture sector than in the tourism sector. As previously mentioned, both sectors have suffered significant losses, livelihoods have not yet being significantly impacted in the tourism sector. However, Representatives from the Ministry of Tourism noted that in areas that were heavily dependent on tourism for livelihoods persons understood the importance of conserving the environment and there are very visible efforts in this area.

Farmers in the agriculture sector are concerned about the continuous loss that are being sustained by frequent climate related events. Representatives from the Ministry of Agriculture indicated that farmers are very receptive to the interventions that are being introduced by the Ministry and other stakeholders as they are keen on securing their investments.

*“Farmers are being impacted and we find that they are very receptive to the actions that are being promoted by the Ministry.”* Representative from the Ministry of Agriculture

*“Farmers are not resistant to adapting new practices....they are asking themselves what to do....They just need information and access to some of the available resources”* Representative from IICA

*“Behaviours are changing especially in agriculture. However we are not seeing it as much in other areas especially as it relates to construction...”* Representative from NEMO



### 3.2.3 Practices related to climate changes

#### 3.2.3.1 Individual and community practices

It is very clear that, for residents of the island, change in practices and behaviour is necessary in many spheres of life. Some individuals and communities are still resistant to changing existing practices, others are slowly adopting new practices while some have fully adopted new practices to prevent or lessen the impact of climate change.

Some encouraging practices identified by the communities include;

(i) Increase awareness and education: While most of the education and awareness being conducted at the community level is not focused on climate change, they are geared towards improving practices that can help to prevent or lessen the impact of climate change. Many community groups are engaged in outreach and education on environmental protection and conservation. These are focused on deforestation, protection of coastal resources, proper waste disposal and general awareness raising in schools and to adult residents of the communities.

(ii) Disaster planning informed by vulnerability assessment and community mapping: Several communities have established community disaster response teams. These are supported by the Red Cross but lead by the community. Trained community members conduct vulnerability assessments and mapping and use the information gathered to lead the development of community disaster plans. The groups also engage in outreach and education to the community focused on risk and vulnerability.

(iii) Water Harvesting and Water Conservation: The practice of water harvesting and water conservation has been increasing in many communities. CSWA noted that this practice needs to be further encouraged as many communities are still very reliant on CSWA for water supply. It has been noted that communities are making a greater effort to conserve water during dry periods. However, many do not maintain this practice throughout the year. This can be observed in water consumption patterns documented by CSWA.

(iv) Relocation of some homes along the coast and rivers: In many communities residents affected by or vulnerable to the impact of flooding and coastal erosion have been relocated by authorities to less vulnerable areas. In most cases, community members are willing to relocate.

(v) Establishment of early warning systems and flood markers: Flood markers are very visible in several of the communities along the river. These are monitored by community members who advise the community when the river is rising. Additionally, several communities receive information from CSWA's early warning system through its Whats App group. The system provides early advice on amount of rain fall in the mountains and warnings of rising river levels.

(vii) Clearing of drains and cleaning of the community: Many communities have also taken the initiative to engage in regular clean up campaigns to dispose of solid waste in the community as well as cleaning of drains and water ways.

However, despite these encouraging practices some practices that contribute to individual and communities vulnerability to climate related hazards continue to be visible.

*“I think people understand but I don’t think they continue to practice. When I look at the rivers people continue to throw garbage in it. They cut down the tress and leave them on the river side”*

Female participant, Marriacqua

One practice that persists is the construction of settlements along vulnerable areas such as the coast and rivers. During a visit to one community near Kingstown, ongoing construction of poorly built homes along the coast could be observed. All the homes are built at ground level and are not constructed to withstand the impact of any of the elements that they are likely to be exposed to. The settlement housed fishers and their families who relocated from other parts of the island. It was noted by the authorities that the settlement is constantly affected whenever there is heavy rainfall and flooding.

In some communities even after residents are relocated due to damages suffered or the potential threat of damage to their homes they return to the location. In some instances, other community members establish their homes on the vacant properties. In some instances some persons are unwilling to relocate despite constant efforts by authorities. In Sandy Bay, for example, residents of an entire area along the coast have been relocated due to the damages caused by sea level rise and storm surge and erosion. However, there are a few residents who refuse to relocate despite the threat to life and property. This scenario is found in many communities.

Other negative practices mentioned include improper waste disposal, cutting down of trees by farmers, blocking drains and water ways with debris, and general lack of community participation and involvement in local level response. Community participation is key as many organizations do not have a physical presence in communities. They therefore rely on leadership from within the community to mobilize the community and to support implementation of specific interventions. This can be a challenge in communities where leadership and participation is weak and the community is not well organized. Authorities also indicated that although the practice of water harvesting and water conservation are increasing, this need to be adapted by all residents of the island. Residents are heavily dependent on public water sources and can assist in conservation and management of water if they practice water harvesting.

Some participants have acknowledged that they are uncertain of what specific actions they can take. They are aware that their communities are at risk. However, at times it is not clear what they should be doing to prevent or lessen the impact of climate change. One participant reflected, *“We need to be more specific and tell them what actions they need to take and then maybe they would join”*. Female Participant, Vermont

As it relates to practices by farmers, although there are notable changes, authorities indicated that there are still a number of prevailing practices that contribute to the negative impacts caused by climate related events. Representatives from one agency indicated that the culture of soil

conservation, for which is island was widely known, has been lost. Farmers need to practice soil conservation, water management and conservation and water harvesting.

### 3.2.4 Media

The need for current relevant information to be shared with communities cannot be overstated.” *We need continuous updates on what is taking place because to me climate change will continue to happen and because are not adhering to the things it will get worse. So the constant update of what is to be expected will help us to prepare ourselves much better”* Female, Langley Park

Community members and stakeholders suggested a number of ways in which this can be done. These included; Interpersonal channels at the community level, Mass media via radio and television, social media, oral stories, community events, popular theatre and through education to children and young people in primary and secondary school.

At the community level interpersonal communication can be done through mobilizing communities to participate in community meetings, community events such as local fairs, workshops etc. Incentives must be provided for community members and the activities must be interactive and informative.

As it relates to the mass media television is the most popular channel. Most persons in the communities would be interested in getting information on climate change if it is presented in a fun and educational manner. Many participants pointed to the Zika Virus campaign as one of the most recent, successful campaigns. They say that it got their attention because it used a variety of materials including songs, videos and drama to bring the message across. It was repetitive and widely disseminated.

While radio is not the most popular channel, many young people indicated that they listen to some stations, particularly those that featured popular music. They suggested that they can be reached through this channel.

Young people also indicated that they are always on social media and therefore if the information is packaged nicely on presented on social media they would most likely pay attention. It must be in the form of pictures and videos and very limited in terms of reading content. As one participant stated *“it has to be short, sweet and nice”*. Adults in all communities also indicated that social media, especially Facebook was very popular among all ages and was a good channel of communication.

Organizations working at the community level have shared that capturing and sharing oral stories, particularly of changes that have been seen and experienced by residents of communities is an effective way to bring the message of climate change across. They also recommend disseminating information through popular theatre, music, arts and drama.

## 4.0 Summary of findings and Recommendations

This section of the report captures a summary and discussion of the major findings from the qualitative and quantitative surveys. It also makes some key recommendations for addressing issues related to communication on climate change in SVG.

### 4.1 Summary of Findings

Climate change and the changes associated with climate change, have become a part of the daily reality of residents of SVG. Although the island had previously experienced several climate related disasters, 2009/2010 can be identified as the period when these events began to increase in frequency and intensity. Residents are very vulnerable to the impacts of climate change as the majority of homes, 64.4%, are either situated near a river, coastline, low-lying areas or on or near a steep incline

Participants in the study understand the concept of climate change in its broadest sense but lack comprehensive knowledge of what climate change is, what causes climate change and what specific changes are associated with climate change. For the majority, climate change means changes in weather patterns or weather conditions. For others it means changes in temperature, changes in the environment, and global warming while ¼ of the population do not know what climate change means.

Although they understand that climate change brings about changes in weather and weather conditions, the majority are only able to identify the major changes based on their experiences. They identified changing weather patterns, flooding, landslides, sea level rise, and erosion along the coast as the major changes associated with climate change. It is obvious that this is based on their experience rather than comprehensive knowledge as they also identified the top three changes affecting their communities as changing weather patterns, flooding and landslides. A significantly lower percentage of respondents were able to identify other changes associated with climate change such as differences in seasonality of crops, increase in insect pest and decrease in fish stock. These were also changes that the majority identified as not being experienced by their communities.

Study participants also demonstrated a limited understanding of what was causing climate change. It is clear that some respondents understand those issues at the community level that are contributing towards greenhouse gas emission. However, there appears to be a lack of comprehensive understanding of the major contributing factors at the global and national level. A little more than half of the respondents identified deforestation (cutting down trees and mangroves) as a contributor to climate change and a little under half identified improper garbage disposal and burning of fossil fuels. However, electricity generation and poor industrial practices which are major contributing factors nationally and globally were not identified by participants. This may be because the messages that are being promoted locally focus on promoting proper garbage disposal and decrease in deforestation. Some participants still believe that climate change is an act of the creator.

The majority of participants, almost 70%, have lived in their communities all their lives. As a result they are able to indicate with certainty that their daily lives are being impacted in many ways. They continue to suffer damage to property, loss of home and property in some cases, and in some extreme cases loss of lives have been reported. Interestingly, these losses have not motivated them to seek insurance for their properties. The majority of respondents (67.8%) do not have home insurance. Only 14.4% reported that their homes were insured while 17.8% did not know or were not sure. Of the 14.4% who had home insurance 46% had insurance against hazards while 35.4% had no hazard insurance and 18.6% did not know or were not sure if they were insured against hazards.

Daily lives as well as livelihoods are being impacted by climate change. The sector that has been most affected by climate related events is the agriculture sector. Agriculture is the main stay of the island with root crops, bananas and fruits and vegetables being the three main export crops. Many communities depend on farming for their livelihood. Changing weather patterns resulting in extended drought as well as heavy rains and flooding have significantly impacted farmers in recent years and farmers are acutely aware that these changes have become a reality for them. Even though farmers may not yet be able to make a direct connection between the changes they see occurring and climate change, they are aware that these changes are significantly impacting their livelihoods and are anxious to adopt practices that will help them to mitigate the impact of these changes.

Other sectors being impacted, although to a lesser degree at the moment include the water sector and the tourism sector. Extensive damages have occurred in many of the popular tourist sites in the interior. The government has invested over a million dollars in restoring these sites. However, after repeated damages suffered during disasters, the decision was taken for the sites to remain closed. Although the government has suffered financial loss, the tourism sector has not been significantly impacted as tourist arrivals remain constant. However, it is well noted that increase erosion of some of the island's prime beaches, if not managed, can threaten the sector.

Based on their experiences with climate related events over the past few years, almost everyone on the island have come to understand and accept that the changes they are experiencing have become permanent and they will have to adapt to these changes. Most individual, agencies and communities have demonstrated a high level of concern. They have also demonstrated an attitude of resilience as the majority of respondents indicated that they did not agree that there was nothing a small island like SVG can do about climate change. The majority, 78.7%, also indicated that they are prepared to do whatever it takes to help to prevent or lessen the impact of climate change. This positive attitudes is helpful for engaging individuals and communities in efforts to respond to the impacts of climate change.

Education and Awareness and community participation are among the top three interventions noted by participants to prevent or lessen the impact of climate change. This is also very important given the low levels of comprehensive knowledge on climate change. Stakeholders acknowledge

that this is very important as education and awareness on climate change has only recently being integrated into disaster preparedness education at the community level.

Community members, community leaders and central government were viewed as not doing enough to prevent or lessen the impact of climate change at the community level. The number of respondents who felt that any of the actors above are taking action was significantly low. This could signal a lack of awareness and low visibility of actions that are being taken or that specific actions are not being taken at the community level.

A slightly higher percentage of respondents indicated being aware of actions being taken by the government or other organizations when compared to actions being taken by individuals and communities. However, the percentage of those who are aware of actions, 39.5%, is still significantly low. 28.9% of respondents indicated that there were no actions being taken by government or other organizations while 31.6% did not know or were not sure if actions were being taken.

The level of concern was greatest among those in the agriculture and tourism sector. This is because livelihoods are directly affected by climate related events. The level of concern was higher in the agriculture sector than in the tourism sector. As previously mentioned, both sectors have suffered significant losses, livelihoods have not yet being significantly impacted in the tourism sector. However, Representatives from the Ministry of Tourism noted that in areas that were heavily dependent on tourism for livelihoods persons understood the importance of conserving the environment and there are very visible efforts in this area.

Farmers in the agriculture sector are concerned about the continuous loss that are being sustained by frequent climate related events. Representatives from the Ministry of Agriculture indicated that farmers are very receptive to the interventions that are being introduced by the Ministry and other stakeholders as they are keen on securing their investments.

There are some individuals whose level of concern appears to be lower than expected given the current realities. A significant level of apathy from many individuals have been noted. Some persons appear to only be concerned when there is an event. However, although events continue to occur, the level of concern is not sustained during periods when there are no events. This can be noted from the daily actions of those individuals.

For residents of the island, change in practices and behaviour is necessary in many spheres of life. Some individuals and communities are still resistant to changing existing practices, others are slowly adopting new practices while some have fully adopted new practices to prevent or lessen the impact of climate change. Some actions that are being taken at the community level by community leaders, members and government include water harvesting, public education and awareness, energy conservation efforts, establishment of early warning and flood warning systems, relocation of residents in vulnerable areas, and enforcement of building codes. However, respondents were not aware of many of the important national actions such as efforts to implement energy efficient measures in the industrial and commercial sectors, reducing the use

of fossil fuel, increase research and development of renewable technologies, and provision of support to the agriculture sector. Policy makers indicated that many of these efforts were being implemented. However, this points to the need to increase visibility of national efforts geared towards preventing or lessening the impact of climate change.

One negative practice that persists is the construction of settlements along vulnerable areas such as the coast and rivers. In some communities even after residents are relocated due to damages suffered or the potential threat of damage to their homes they return to the location. In some instances, other community members establish their homes on the vacant properties. In some instances some persons are unwilling to relocate despite constant efforts by authorities. Other negative practices mentioned include improper waste disposal, cutting down of trees by farmers, blocking drains and water ways with debris, and general lack of community participation and involvement in local level response.

Authorities also indicated that although the practice of water harvesting and water conservation are increasing, this need to be adapted by all residents of the island. Residents are heavily dependent on public water sources and can assist in conservation and management of water if they practice water harvesting. In the agriculture sector, there are still a number of prevailing practices that contribute to the negative impacts caused by climate related events. Representatives from one agency indicated that the culture of soil conservation, for which is island was widely known, has been lost. Farmers need to practice soil conservation, water management and conservation and water harvesting.

Individuals and communities do not have enough information to take action and are not aware of specific actions that they must take to prevent or lessen the impact of climate change. Many participants have indicated that they are aware that their communities are at risk, however, at times it is not clear what they should be doing to prevent or lessen the impact of climate change.

## 4.2 Recommendations

The following are concrete recommendations focused on increasing knowledge about climate change, changing attitudes and encouraging improved practices to mitigate the impact of climate change.

1. Given the realities of climate change in Saint Vincent and the Grenadines, communication is critical to increasing understanding among the population and to ensure that everyone understands the changes occurring and are able to better prepare to decrease their vulnerability. In this regard, there needs to be a comprehensive communication strategy for climate change, linked to a dedicated budget for communication. This comprehensive communication strategy will provide a framework for all stakeholders to align their communication efforts thus ensuring that messages on climate change are consistent.

2. It is logical that the development of a comprehensive communication strategy may take some time and that the government may consider delaying this effort until a national policy and plan of

action on climate change is finalized. However, given the frequency and intensity of climate related events, there is a sense of urgency in the need for individuals and communities to be aware and well prepared. Therefore, the issue of climate change needs to be amplified in mainstream media. Several participants shared the example of widespread communication on Zika through a variety of channels given the prominent threat of the virus. The threats posed by climate change and the importance of preparedness should warrant that climate change gets the same level of communication and visibility as Zika.

3. Education and awareness efforts need to focus on increasing awareness of what is climate change, what causes climate change and what impacts can be expected. A good way to get the message across is to link current experiences of individuals and communities to climate change. However, education and awareness efforts must go beyond just helping persons to recognize that the events they are experiencing is a result of climate change. Persons must understand the wide gamut of changes associated with climate change and how these can impact their daily lives and livelihoods.

4. The priority target groups for communication efforts are farmers, especially in rural areas and residents of communities located in vulnerable areas such as near the coast and rivers and on steep inclines. They are being most impacted and remain most vulnerable to climate change. Farmers need specific information on how climate change is linked to the challenges they are currently experiencing, what changes they can expect and specific actions they can take to mitigate the impact of climate change. Agriculture officers, working directly with farmers, need to be reoriented to work with farmers in the context of climate change. Clear and consistent messages for farmers need to be developed about adaptation to the changes they are experiencing. Practical and specific information on the how as it relates to new technology in agriculture, new practices and new crops needs to be provided. Some of the models being developed by the Ministry of Agriculture and IICA under the JCCCP project can serve as effective learning centres for farmers as it relates to increasing knowledge on adaptation.

5. Individuals and communities need clear and concise information on what actions they can take at an individual level and at the community level. Call to action needs to be very specific. Currently a wide range of actions that can be taken are being communicated. However, the communication needs to clearly define what government can and will do and what individual and communities can do. Call to action targeting communities must be complemented by a how to as it relates to some of the specific actions. It should not be assumed that the community understands how to properly dispose of garbage or what are some concrete things they can do to conserve water or energy. Given the literacy level of many individuals in some communities, every attempt must be made to be clear and specific.

6. The visibility of current actions by government, organizations and communities need to be increased. During the data collection exercise, it was evident from the interviews that the government was undertaking significant actions to mitigate and adapt to climate change. However, the survey results and findings from focus discussions did not indicate a high level of



awareness of these efforts. Similarly, several organizations are working in communities to implement programmes. These were not very visible by respondents. It is important to increase visibility of these actions through popular media and other interpersonal channels so that individuals understand the importance that government and other agencies are assigning to climate change. This could increase their motivation to play their role in preventing or lessening the impact of climate change.

7. Efforts towards organizing and mobilizing communities must be increased. Unlike many other countries in the region with clearly defined governance structures at the community level, communities in SVG are heavily dependent on volunteers to assume leadership in the implementation of community based activities. While this has proven successful in some communities, action in several communities is hindered because of a lack of community leadership and participation. Many of the organizations do not have a physical presence in communities and must rely on leadership and participation from the community in order for initiatives to be successful. The Red Cross has been able to successfully establish community response teams in several communities. It is important to understand the factors that contribute to successful leadership and participation in communities so that all communities can be mobilized and motivated to take action on climate change.

## 5.0 References

Carib Save, 2012: Climate Change Risk Profile for Saint Vincent and the Grenadines, Summary Document

CARICOM, 2006: Knowledge, Attitudes and Practice Studies on Climate Change in the Caribbean: A Summary of Findings

Government of Saint Vincent and the Grenadines, 2015: Saint Vincent and the Grenadines SPCR update and 2015 PPCR Monitoring Report

Government of Saint Vincent and the Grenadines, 2015: Saint Vincent and the Grenadines Intended Nationally Determined Contribution Communicated to the UNFCC on November 18, 2015

## Annex

### Annex 1: Survey Instrument

Climate Change Knowledge, Attitudes and Practice Survey- Japanese-Caribbean Climate Change Partnership Project		
Q1.	Name of Interviewer	
Q2.	Location:	Name of Community: _____
Q3.	Date of Interview	
<p>Introduction: Hello I am working on a study for the United Nations Development Programme. The purpose of the study is to collect information that will help to improve knowledge, attitudes, and behaviours of Vincentians towards climate change. I would like to ask you some questions about what you know or have observed about SVGS climate, how you feel about certain climate-related issues and what you do when it comes to disasters caused by differences in climate. Your answers are confidential and cannot be linked back to you. Your participation is completely voluntary and you may decline to answer any specific question or completely refuse to participate. The interview should take about 20 minutes of your time. We would greatly appreciate your help in responding to these questions.</p>		
Section 1: Demographics		
Q4.	What is your sex?	1. Male 2. Female
Q5.	What is your age?	1. 18-24    3. 41-54 2. 25-40    4. 55-70                      5. Older than 70
Q6.	What is your current occupation?	1. Domestic worker/housewife    2. Professional 3. Student                                      4. Technician 5. Service and Sales Worker              6. Armed Forces 7. Craft and related trade workers    8. Unemployed 9. Clerical Support Workers 10. Agriculture, Forestry and Fishery Workers 11. Manager/Supervisors/Business man/woman
Q7.	How many years have you lived in this community?	1. Less than a year 2. 1-5 years 3. 6-10 years 4. 10-20 years 5. All my life
Q8.	What is your highest level of education?	1. Primary Education                      2. Secondary Education 3. Associate Degree                          4. Bachelor's Degree or higher 5. Other _____

Q9.	How many persons, including you, reside in your household	1. I live alone    2. Less than 5    3. 5 to 10 persons 4. More than 10 persons
Q10.	Is your house situated near to a river-side, coastline, and low-lying area or on steep incline (hill or mountain)?	1. No 2. Yes- river 3. Yes- Coastline 4. Yes- low-lying area 5. Yes- steep incline
Q11.	What type of roofing material was used in the construction of your house?	1. Zinc/Metal roofing                      5. Rubber Rye 2. Concrete roofing                        6. Make Shift 3. Clay/concrete tiles                      7. Other _____ 4. Thatch roofing
Q12.	What is the main construction material of the outer walls of your house?	1. Wood    5. Plywood 2. Wood and concrete                        6. Plycem 3. Concrete                                        7. Sheet Metal 4. Thatch    8. Brick 9. Other _____
Q13.	Do you own the house you live in?	1. Own    3. Lease                      4. Other _____ 2. Rent
Q14.	Is the house you live in Insured?	1. Insured 2. Not insured 3. Don't know/Not sure
Q 15.	If yes to Q 14, is it insured against climate related hazards such as hurricane, flooding or other natural hazards (threats)?	1. Yes 2. No 3. Don't know/Not Sure
<b>Knowledge of Climate Change</b>		
Q16	Have you heard the term climate change?	1. Yes 2. No
Q 17	What does the term climate change mean?	_____

Q 18	Is climate change affecting your community?	1. Yes 2. No 3. Don't know/Not sure			
Q 19	Do you think the following is/are associated with climate change?		Yes	No	Don't Know/Not sure
		1. Changing weather patterns (more rainfall, hotter periods etc.)			
		2. Increase in sea surface temperature and coral bleaching			
		3. Stronger and more frequent hurricanes			
		4. Sea level rise			
		5. Increase in air temperatures			
		6. Erosion along the coast			
		7. Landslides			
		8. Flooding			
		9. Differences in seasonality of crops			
		10. Increase in insect pests			
		11. Decrease in fish stock			
		12. Melting of the ice caps at the poles			
Q 20	Has your community been affected by any of the following over the past 10 years?	Yes      No      Don't Know/Not sure 1. Changing weather patterns (more rainfall, hotter periods etc.) 2. Increase in sea surface temperature and coral bleaching 3. Stronger and more frequent hurricanes 4. Sea level rise 5. Increase in air temperatures 6. Erosion along the coast 7. Landslides 8. Flooding 9. Differences in seasonality of crops 10. Increase in insect pests 11. Decrease in fish stock 12. Increase in vector borne/water borne diseases			

Q21	What do you think are the main causes of climate change? (Circle all that apply)	<ol style="list-style-type: none"> <li>1. Burning fossil fuels such as coals, oils and natural gases</li> <li>2. Transportation such as driving a car, bus or boat (vehicle emissions)</li> <li>3. Cutting down trees and mangroves</li> <li>4. Poor industrial practices (improper waste disposal, factory emissions etc.)</li> <li>5. Electricity generation</li> <li>6. Improper garbage disposal</li> <li>7. Climate change is just a natural occurrence</li> <li>9. Acts of the Creator</li> <li>10. Don't know/Not sure</li> </ol>						
<b>Attitude to Climate Change</b>								
Q22.	How concerned are you about climate change?	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Very concerned</td> <td style="width: 50%;">3. Not concerned</td> </tr> <tr> <td>2. Somewhat concerned</td> <td>4. Don't know/Not Sure</td> </tr> </table>	1. Very concerned	3. Not concerned	2. Somewhat concerned	4. Don't know/Not Sure		
1. Very concerned	3. Not concerned							
2. Somewhat concerned	4. Don't know/Not Sure							
Q23.	Do you think any of the following are important in helping the community prevent/reduce the impact of climate change?	<table style="width: 100%; border: none; text-align: center;"> <tr> <td>Not important</td> <td>Somewhat important</td> <td>Very important</td> <td>Don't know/Not sure</td> </tr> </table> <ol style="list-style-type: none"> <li>1. Comply with environmental laws</li> <li>2. Build structures to protect the coast</li> <li>3. Conserve energy and natural resources</li> <li>4. Encourage water conservation and reuse</li> <li>5. Discourage construction of new settlements in coastal areas/relocation of vulnerable coastal settlements</li> <li>6. Decrease deforestation</li> <li>7. Increase reforestation</li> <li>8. Increase public awareness of climate change issues</li> <li>9. Encourage and promote community participation</li> <li>10. Disaster management plans</li> </ol>	Not important	Somewhat important	Very important	Don't know/Not sure		
Not important	Somewhat important	Very important	Don't know/Not sure					
Q 24.	State your level of agreement with the following statements	<table style="width: 100%; border: none; text-align: center;"> <tr> <td>Strongly disagree</td> <td>Disagree</td> <td>Neutral</td> <td>Agree</td> <td>Strongly Agree</td> <td>Don't know/Not sure</td> </tr> </table> <ol style="list-style-type: none"> <li>1. Community leaders are taking actions to address the impacts of climate change on communities</li> <li>2. Central government is taking action to address the impacts of climate change on communities</li> <li>3. Community members are taking action to address the impacts of climate change on the community</li> <li>4. I am prepared to do whatever I can to help to preserve the environment</li> <li>5. There is nothing a small country like SVG can do about climate change</li> </ol>	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Don't know/Not sure
Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Don't know/Not sure			

Q25	Who do you think is mainly responsible for addressing climate change in SVG? ( circle all that apply)	1. Government 2. Businesses/Industry 3. Community organizations 4. Private citizens 5. United Nations 6. Industrialized countries 7. Everyone 8. Don't know/Not sure
Q26	Are you interested in finding out more about the impact of climate change on SVG?	1. Very interested 2. Somewhat interested 3. Not interested 4. Don't know/Not sure
<b>Practices related to climate change</b>		
Q27.	Have you or the community taken any actions to lessen the impact of climate change?	1. Yes 2. No ( <b>If no, go to Q 29</b> ) 3. Don't Know/Not Sure ( <b>If don't know/Not sure go to question 29</b> )
Q28	If yes, which of the following actions have been taken by you or your community to lessen or prevent the impact of climate change in the community? ( Circle all that apply)	1. Water harvesting 2. Observe building codes 3. Building sea walls 4. Mangrove conservation 5. Reforestation (planting trees) 6. Proper waste disposal/composting 7. Disaster management plans 8. Conserve energy 9. Carpooling /taking public transportation 10. Reuse and recycle waste 11. Raise Awareness 12. Not cutting down trees/forests
Q29	Has the government or other organizations taken any action in your community to lessen or prevent the impact of climate change?	1. Yes 2. No ( <b>If no, go to Q 31</b> ) 3. Don't Know/Not Sure ( <b>If don't know/Not sure go to question 31</b> )

Q30	If yes, which of the following actions have been taken or can be taken by government to lessen or prevent the impact of climate change in the community?	<ol style="list-style-type: none"> <li>1. Reduce use of fossil fuel (coal, oil, natural gas) use</li> <li>2. Implement energy efficient measures in the industrial and commercial sectors</li> <li>3. Increase research and development of renewable energy technologies</li> <li>4. Provide support to agriculture sector to improve crop performance</li> <li>5. Increase public awareness of climate change issues</li> <li>6. Early warning systems for health-related impacts (such as dengue)</li> <li>7. Flood warning systems</li> <li>8. Enforce building code</li> </ol>
Q31	If you or your community have not taken any action, what has prevented you from taking action to prevent or lessen the impact of climate change on your community?	<ol style="list-style-type: none"> <li>1. Do not have enough information about climate change</li> <li>2. Not aware of what actions can/should be taken</li> <li>3. Climate change is not a concern in the community</li> <li>4. It is not our responsibility to take action</li> <li>5. Other _____</li> </ol>
<b>Media Use</b>		
Q32	How often do you read /listen to/ watch stories on climate change?	<ol style="list-style-type: none"> <li>1. Very Often</li> <li>2. Occasionally</li> <li>3. Rarely</li> <li>4. Never</li> <li>5. Don't know/Not sure</li> </ol>
Q33	Would you like to read/watch/listen to stories on climate change?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> <li>3. Don't know/Not sure</li> </ol>
Q34	Where do you get your information on climate change? (Circle all that apply)	<ol style="list-style-type: none"> <li>1. Television</li> <li>2. Radio</li> <li>3. Newspapers</li> <li>4. Websites/Internet</li> <li>5. Community groups</li> <li>6. Lectures/Workshops</li> <li>7. Pamphlets/Brochures</li> <li>8. Posters</li> <li>9. Videos</li> <li>10. Schools</li> <li>11. Friends/Family</li> <li>12. Faith-based organization</li> <li>13. Government</li> <li>14. Non-governmental organizations</li> <li>15. I get no information on Climate Change</li> <li>16. Other (specify) _____</li> </ol>
Q35	Which are the three most effective ways to get information on climate change to your community?	<ol style="list-style-type: none"> <li>1. Television</li> <li>2. Radio</li> <li>3. Newspapers</li> <li>4. Websites/Internet</li> <li>5. Community groups</li> <li>6. Lectures/Workshops</li> <li>7. Pamphlets/Brochures</li> <li>8. Posters</li> <li>9. Videos</li> <li>10. Schools</li> <li>11. Friends/Family</li> <li>12. Faith-based organization</li> <li>13. Government organizations</li> <li>14. Non-governmental organizations</li> <li>15. Other (specify) _____</li> </ol>



Q36	Which radio stations do you listen to most?	( Include list of radio stations for SVG)
Q37	Do you own or have access to a television?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
Q38	Do you have access to the Internet?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. Sometimes</li> <li>3. No</li> </ol>

## **Annex 2: Key Informant Interview/Focus Group Discussion Guide**

### **Focus Group Discussion Guide**

#### **Topic One – What is Climate Change?**

a) When you hear the words “climate change” – what immediately comes to your mind? What does climate change mean to you? (Probe: Why is climate change happening?)

b) What in your view is causing climate change? Why is it occurring?

c) What types of changes do you think climate change will bring or is bringing already? (Note: this should lead into a general discussion on impacts – such as increased storms, drought, rainfall, and so forth)

d) What types of climate change impacts have you observed personally or experienced directly? What was the result of this experience?

e) What types of impact has climate change had on your community? What impact have these changes had?

f) What do you think will happen if these impacts continue to occur and are not addressed?

#### **Topic Two – What Risks are involved in Climate Change?**

a) We are all affected by climate change . Climate change will affect everyone in SVG, but some people will be more at risk than others if we have increased storms, drought, flooding and so on. Who do you think is most at risk from climate change impacts in your community? (this should start a discussion about vulnerable groups such as disabled, aged – but should also lead into some analysis of persons who live in homes of poor construction quality, or who live in hazard prone areas that are either on steep slopes, too close to the sea or wetlands, and so forth). Why do you think they are most at risk?

b) How at risk do you feel you are personally? Why?

#### **Topic Three – What can be done to reduce climate risk?**

a) What steps are you taking in your own life to reduce climate impact? If you are not, what is holding you back?

What steps, if any, are vulnerable groups in your community taking to limit climate change impacts? If they are not, what reasons are holding them back?

c) Some of the steps and measures that do exist to help make households more climate resilient can cost money. How would you go about getting the money to make your home or business climate ready? (probe: do you know of any sources of credit or finance for climate readiness?)

d) If a climate disaster happened tomorrow, what type of insurance would you have to cover your loss?

e) How many people in your community do you think have some type of insurance for floods, droughts, storms or hurricanes? If people don't have insurance, why?

#### **Topic Four – Who has a role and responsibility to help improve our climate resilience?**

a) In order for SVG to get ready for climate change everyone will need to be involved and play a role. What role should the government play in helping to make SVG more climate ready? Who in the government needs to be involved?

b) What types of programmes or projects do you know about that the government is already doing to help make us more climate resilient?

c) What role should individuals and communities play in helping SVG to get ready? What type of responsibility do you have and the people in your community?

d) What things, if any, do you think we can do to make sure that we don't add or contribute to climate change?

#### **Topic 5: Media use**

What do you think are some of the best ways to reach people with messages on climate change?

What are the types of messages/ads/campaigns that would get people's attention?

What are the types of messages/ads/campaigns that would really move people to take action on climate change?

Do you have examples of some messages/materials/ads/campaigns that really got your attention? What was the issue? Why did it capture your attention? What did it change for you? (knowledge, attitude, practice)

What is your most trusted source of information?