

NDPBA

ANTIGUA AND BARBUDA PARISH RISK PROFILES



ANTIGUA & BARBUDA BARBUDA

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA BARBUDA

Area: 160.58 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Moderate

Score: 0.463 • Rank: 3/8



Population (2011 Census)

1,625



RESILIENCE (R)

- Very Low

Score: 0.527 • Rank: 6/8



Prevalence of Chronic Illness

32.5%



MULTI-HAZARD EXPOSURE (MHE)

- Low

Score: 0.443 • Rank: 4/8



Unemployment Rate

7.4%



VULNERABILITY (V)

- Very High

Score: 0.558 • Rank: 1/8



Population with Unmet

Housing Need

12.5%



COPING CAPACITY (CC)

- High

Score: 0.612 • Rank: 2/8



Households with Internet Access

31.9%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 4/8 ASSESSED

SCORE: 0.443



MHE 0.443

Raw MHE 0.040

Relative MHE 0.845

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

10%

4 195

Buildings Exposed: 11%

Critical Infrastructure Exposed: 33%



Hurricane Winds

100%

1,950

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

1,950

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

0%

& 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Extreme Heat

100%

1,950

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

15%

288

Buildings Exposed: 7%

Critical Infrastructure Exposed: 32%



Flood

99%

1.940

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Tsunami

15%

288

Buildings Exposed: **16%**

Critical Infrastructure Exposed: 58%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 4/8 ASSESSED

SCORE: 0.443

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

<1%

2 2

Buildings Exposed: <1%

Critical Infrastructure Exposed: 0%



RANK: 1 / 8 ASSESSED

RANK: 3/8 ASSESSED

RANK: 1/8 ASSESSED

RANK: 8/8 ASSESSED

SCORE: 0.558

Vulnerability in Barbuda is primarily driven by Housing and Transportation Vulnerability and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

0 1 SCORE: 0.567

7.8%
Highest Education
Primary School

85.7%
Households without Desktop Computer Access

31.9% Households with Internet Access 76.9% Households with Television Access 63.3% Households with Radio Access



Economic Constraints

0

0.55Economic
Dependency
Ratio

63.7%Labor Force Participation Rate

11.0%
Population
Receiving
Remittances

7.4%Unemployment Rate

SCORE: 0.054

SCORE: 0.750



Environmental Stress



1.7%

Coastline Exposure to Local or Global Threats

15.5%

Tree Cover Loss



Gender Inequality

0

0.06 0.30

Female to Male
Labor Ratio

Labor Ratio

Secondary
Education

Attainment

SCORE: 0.629 RANK: 1/8 ASSESSED



RANK: 1 / 8 ASSESSED

SCORE: 0.558



Housing and Transportation Vulnerability

0 SCORE: 0.853 RANK: 1/8 ASSESSED

74.3% Housing Built Prior to 2000 **4.6%**Household
Overcrowding

61.3% Households without Private Vehicle

12.5% Population with Unmet Housing Need



Household Composition and Vulnerable Health

7.2%

1 SCORE: 0.551 RANK: 2/8 ASSESSED

4.83

Prevalence of Disability (per 100 persons) 32.5%

Prevalence of Chronic Illness (per 100 persons)

Population Age 65 and Over

28.4%

Population Under Age 15



Population Pressures



10.1

1 SCORE: 0.500 RANK: 3/8 ASSESSED

2.5%
Average Annual Population Change

Population Density (persons per sq km)



ISLAND CAPACITY (IC)

RANK: 1/8 ASSESSED

SCORE: 0.760

Barbuda exhibits weaker Island Capacity in the areas of Emergency Services Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.520 RANK: 2/8 ASSESSED

Terrestrial Area

0.0% -39,30 24.3% 85.3% Croplands Net Carbon Protected Protected



Governance Capacity

Flux

SCORE: 0.813 RANK: 1/8 ASSESSED

Coastlines

97.3% 3.9% Household Prevalence of Waste Disposal Crime



Infrastructure Capacity

SCORE: 0.786 RANK: 1/8 ASSESSED



Communications Capacity

SCORE: 1.000 RANK: 1/8 ASSESSED

50.4% 90.6% Households with Households with **Fixed Phones** Mobile Phones



Emergency Services Capacity

SCORE: 0.330 RANK: 6/8 ASSESSED

2.4 2.7 2.5 2.6 Average Distance to Average Distance to Average Distance to Average Distance to Fire Station (km) Police Station (km) Shelter (km) Hospital or Clinic (km)

Energy Capacity

SCORE: 1.000 RANK: 1/8 ASSESSED

95.8% 97.3% 16.5% Households Household Access Households Using

with Generator to Public Electricity Gas for Cooking

Health Care Capacity

SCORE: 0.815 RANK: 1/8 ASSESSED

56.3% 0.51 Health Insurance Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 6 / 8 ASSESSED

SCORE: 0.463

Barbuda exhibits weaker Logistics Capacity in the areas of Maritime Logistics and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 1 SCORE: 0.370

1.4Average
Distance to
Seaport (km)

146.6 Distance to External Medium or Large Seaport (km) **0.03**Port Density (ports per km of coastline)



Air Support

0

SCORE: 0.500

RANK: 3/8 ASSESSED

RANK: 6/8 ASSESSED

96.0 Distance to External C130 Airport (km) 1.5
Average
Distance to
Airport or
Heliport (km)



Transportation Capacity

1 SC

1 SCORE: 0.389

RANK: 4/8 ASSESSED

0.51Gas Stations per 1,000

Persons

0.5Road Density (km of roads per sq km)



Warehouse Access

0 🔷

SCORE: 0.596 RANK: 5/8 ASSESSED

2.6 Average Distance to Warehouse (km) **45.1**Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 2 / 8 ASSESSED

SCORE: 0.612



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 6 / 8 ASSESSED

SCORE: 0.527

KEY FACTORS INFLUENCING RESILIENCE

Barbuda's score and ranking are due to Very High Vulnerability combined with High Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Housing and Transportation Vulnerability

Populations living in older housing, and prior to the enactment of modern building codes, are more susceptible to structural damage and losses as a result of hazard impacts. In addition, higher density living situations such as crowded housing, as well as populations with unmet housing needs, increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



Economic Constraints

Economic constraints have individual, household, community, and region-wide influence. Limitations on available financial resources reduce opportunities to invest in mitigation and preparedness measures and limit the ability to facilitate short- and long-term recovery.



Maritime Logistics

Diverse maritime transport options, within and outside the country, offer crucial support for humanitarian efforts and the transit and delivery of disaster relief supplies. Protecting and maintaining port infrastructure and equipment can help safeguard these key assets and sustain functional operations during a disaster.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 1 / 8 ASSESSED SCORE: 0.582
-Mr-	Earthquake	RANK: 5 / 8 ASSESSED SCORE: 0.493
	Extreme Heat	RANK: 5 / 8 ASSESSED SCORE: 0.493
	Flood	RANK: 2 / 8 ASSESSED SCORE: 0.504
	Hurricane Winds	RANK: 5 / 8 ASSESSED SCORE: 0.493
	Landslide •	RANK: 7 / 8 ASSESSED SCORE: 0.000
	Sea Level Rise	RANK: 1 / 8 ASSESSED SCORE: 0.584
(Cá	Tsunami	RANK: 3 / 8 ASSESSED SCORE: 0.446
	Wildfire	RANK: 7 / 8 ASSESSED SCORE: 0.024



MULTI-HAZARD RISK (MHR)

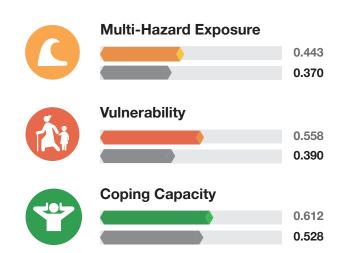
3/8

RANK AMONG PARISHES/DEPENDENCIES Score: 0.463

Barbuda's score and ranking are due to Low Multi-Hazard Exposure combined with Very High Vulnerability and High Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

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ANTIGUA & BARBUDA REDONDA

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA REDONDA

Area: 1.5 km2

Limited data availability for the unpopulated Redonda Dependency precludes the calculation of a comprehensive risk analysis for the island. The indicators below summarize available data across a limited number of the RVA's thematic areas. Note that Logistics Capacity is the only Index calculated for Redonda, based on available data.







Population (2011 Census)

0





Environmental Stress

0

1 SCORE: 1.000 RANK: 1/8 ASSESSED

No Data

Coastline Exposure to Local or Global Threats 17.0% Tree Cover Loss





Environmental Capacity

1 SCORE: 0.506 **RANK: 3/8 ASSESSED**

0.0% Croplands

-0.06 Net Carbon Flux

1.0% Protected Terrestrial Area Coastlines

100% Protected



LOGISTICS CAPACITY (LC)

RANK: 8 / 8 ASSESSED

SCORE: 0.315



Maritime Logistics

116.2

(km)



1 SCORE: 0.258

RANK: 8/8 ASSESSED

No Data

Average Distance to Seaport (km) **0.00**Port Density

Distance Port Density to External Medium or Large Seaport Port Density (ports per km of coastline)



Air Support

1 SCORE: 1.000

00 RANK: 1/8 ASSESSED

56.6Distance to External C130 Airport (km)

No Data

Average Distance to Airport or Heliport (km)



Transportation Capacity



1 SCORE: 0.000

RANK: 8/8 ASSESSED

No Data

Gas Stations per 1,000 Persons Road Density (km of roads per sq km)

0.0



Warehouse Access



1 SCORE: 0.000

RANK: 8/8 ASSESSED

No Data

Average Distance to Warehouse (km) **55.7**Distance to
CDEMA SubRegional Focal
Point (km)



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ANTIGUA & BARBUDA

SAINT GEORGE

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT GEORGE

Area: 23.96 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very Low

Score: 0.274 • Rank: 7/8



Population (2011 Census)

7.976



RESILIENCE (R)

- Very High

Score: 0.654 • Rank: 1/8



Prevalence of Chronic Illness

32.2%



MULTI-HAZARD EXPOSURE (MHE)

- Very Low

Score: 0.130 • Rank: 6/8



Unemployment Rate

18.1%



VULNERABILITY (V)

- Very Low

Score: 0.330 • Rank: 7/8



Population with Unmet Housing Need

6.8%



COPING CAPACITY (CC)

- Very High

Score: 0.638 • Rank: 1/8



Households with Internet Access

48.9%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 8 ASSESSED

SCORE: 0.130



MHE 0.130

Raw MHE 0.078

Relative MHE 0.182

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

2%

4 149

Buildings Exposed: 3%

Critical Infrastructure Exposed: 14%



Hurricane Winds

100%

4 7,320

Buildings Exposed: **100%**

Critical Infrastructure Exposed: 100%



Earthquake

100%

4 7,320

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

5%

375

Buildings Exposed: 7%

Critical Infrastructure Exposed: 8%



Extreme Heat

100%

7.320

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

14%

1,030

Buildings Exposed: 3%

Critical Infrastructure Exposed: 13%



Flood

27%

1.980

Buildings Exposed: 33%

Critical Infrastructure Exposed: 15%



Tsunami

14%

1.030

Buildings Exposed: 13%

Critical Infrastructure Exposed: 40%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 8 ASSESSED

SCORE: 0.130

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

<1%

4 17

Buildings Exposed: <1%

Critical Infrastructure Exposed: 0%



RANK: 7 / 8 ASSESSED

SCORE: 0.330

Vulnerability in Saint George is primarily driven by Environmental Stress and Population Pressures. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

1 SCORE: 0.119

13.3% 62
Highest Ho
Education wit
Primary School De

62.0%
Households without Desktop Computer Access

48.9% Households with Internet

Access

76.4%Households
with Television
Access

71.5% Households with Radio Access



Economic Constraints

0

1 SCORE: 0.445

RANK: 3/8 ASSESSED

RANK: 7/8 ASSESSED

0.45Economic
Dependency
Ratio

66.0%Labor Force Participation Rate

3.8% Population Receiving Remittances 18.1% Unemployment Rate



Environmental Stress



SCORE: 0.804

RANK: 2/8 ASSESSED

83.9%

Coastline Exposure to Local or Global Threats 11.0% Tree Cover Loss



Gender Inequality

0

SCORE: 0.084

RANK: 7/8 ASSESSED

0.05Female to Male Labor Ratio

0.15Female to Male Secondary Education Attainment



RANK: 7 / 8 ASSESSED

RANK: 6/8 ASSESSED

SCORE: 0.330



Housing and Transportation Vulnerability

1 SCORE: 0.053 **RANK: 7/8 ASSESSED**

64.4% Housing Built Prior to 2000

3.5% Household Overcrowding

28.2% Households without Private Vehicle

6.8% Population with Unmet Housing Need



Household Composition and Vulnerable Health 1

2.35 Prevalence of Disability (per 100 persons)

32.2%

8.3% Population Prevalence of Age 65 and Chronic Illness Over (per 100 persons)

22.9%

Population Under Age 15

SCORE: 0.153



Population Pressures



1 SCORE: 0.655 **RANK: 2/8 ASSESSED**

2.1% Average Annual 332.9

Population Change

Population Density (persons per sq km)



ISLAND CAPACITY (IC)

RANK: 2 / 8 ASSESSED

SCORE: 0.637

Saint George exhibits weaker Island Capacity in the areas of Health Care Capacity and Emergency Services Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.275 RANK: 6/8 ASSESSED

7.7% 0.91 10.5% Protected

99.4% Protected Net Carbon Croplands Terrestrial Area Coastlines



Governance Capacity

SCORE: 0.723 RANK: 4/8 ASSESSED

93.9% 3.2% Household Prevalence of Waste Disposal Crime



Infrastructure Capacity

SCORE: 0.673 RANK: 2/8 ASSESSED



Communications Capacity

SCORE: 0.873 RANK: 2/8 ASSESSED

50.2% 86.0% Households with Households with **Fixed Phones** Mobile Phones



Emergency Services Capacity

SCORE: 0.626 RANK: 3/8 ASSESSED

2.4 2.0 2.1 1.8 Average Distance to Average Distance to Average Distance to Average Distance to Fire Station (km) Police Station (km) Shelter (km) Hospital or Clinic (km)

Energy Capacity

SCORE: 0.657 RANK: 2/8 ASSESSED

95.0% 11.7% 93.9% Households Household Access Households Using with Generator to Public Electricity Gas for Cooking

Health Care Capacity

SCORE: 0.538 RANK: 2/8 ASSESSED

55.6% 0.14 Health Insurance Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 2 / 8 ASSESSED

SCORE: 0.64

Saint George exhibits weaker Logistics Capacity in the areas of Air Support and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

1 SCORE: 0.748

97.9

Distance

3.0 Average

Distance to Seaport (km)

to External Medium or Large Seaport 0.19 Port Density (ports per km of coastline)



ir Support

2.9

SCORE: 0.454

RANK: 5/8 ASSESSED

RANK: 2/8 ASSESSED

94.5 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



Transportation Capacity

1 SCORE: 0.474 **RANK: 3/8 ASSESSED**

0.27 6.9

Gas Stations per 1,000 Persons

Road Density (km of roads per sq km)



Narehouse Access

SCORE: 0.883 **RANK: 2/8 ASSESSED**

5.7 Average

Distance to Warehouse (km)

0.0 Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 1 / 8 ASSESSED

SCORE: 0.638



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 1 / 8 ASSESSED

SCORE: 0.654

KEY FACTORS INFLUENCING RESILIENCE

Saint George's score and ranking are due to Very Low Vulnerability combined with Very High Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Population Pressures

Rapid changes in population size and distribution can alter population vulnerability characteristics presenting planning challenges and destabilizing social, economic, and environmental systems. Increased population pressures require disaster managers to realign needs, institutional structures, and available resources to support delivery of basic resources before, during, and after an event.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 7 / 8 ASSESSED SCORE: 0.296
	Earthquake	RANK: 7 / 8 ASSESSED SCORE: 0.434
	Extreme Heat	RANK: 7 / 8 ASSESSED SCORE: 0.434
	Flood	RANK: 5 / 8 ASSESSED SCORE: 0.203
	Hurricane Winds	RANK: 7 / 8 ASSESSED SCORE: 0.434
MÈ	Landslide	RANK: 4 / 8 ASSESSED SCORE: 0.157
	Sea Level Rise	RANK: 6 / 8 ASSESSED SCORE: 0.308
(G)	Tsunami	RANK: 4 / 8 ASSESSED SCORE: 0.352
	Wildfire	RANK: 6 / 8 ASSESSED SCORE: 0.053



MULTI-HAZARD RISK (MHR)



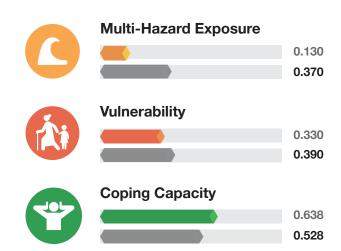
7/8

RANK AMONG PARISHES/DEPENDENCIES Score: 0.274

Saint George's score and ranking are due to Very Low Multi-Hazard Exposure combined with Very Low Vulnerability and Very High Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

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ANTIGUA & BARBUDA SAINT JOHN

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT JOHN

Area: 73.82 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very High

Score: 0.508 • Rank: 1/8



Population (2011 Census)

51,129



RESILIENCE (R)

- High

Score: 0.613 • Rank: 2/8



Prevalence of Chronic Illness

31.0%



MULTI-HAZARD EXPOSURE (MHE)

- Very High

Score: 0.748 • Rank: 1/8



Unemployment Rate

12.3%



VULNERABILITY (V)

- Low

Score: 0.350 • Rank: 5/8



Population with Unmet Housing Need

9.8%



COPING CAPACITY (CC)

- Moderate

Score: 0.575 • Rank: 3/8



Households with Internet Access

37.8%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 1/8 ASSESSED

SCORE: 0.748



MHE 0.748

Raw MHE 1.000

Relative MHE 0.497

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

1%

478

Buildings Exposed: 1%

Critical Infrastructure Exposed: 7%



Hurricane Winds

100%

63,900

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

63,900

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

7%

4,240

Buildings Exposed: 6%

Critical Infrastructure Exposed: 7%



Extreme Heat

100%

63.900

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

8%

5.400

Buildings Exposed: 1%

Critical Infrastructure Exposed: 6%



Floo

71%

45.200

Buildings Exposed: 76%

Critical Infrastructure Exposed: 80%



Tsunami

B%

5.400

Buildings Exposed: 12%

Critical Infrastructure Exposed: 19%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 1/8 ASSESSED

SCORE: 0.748

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

2%

\$ 1,490

Buildings Exposed: 2%

Critical Infrastructure Exposed: 8%



RANK: 5 / 8 ASSESSED

SCORE: 0.350

Vulnerability in Saint John is primarily driven by Population Pressures and Information Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

14.0%Highest

Highest Education Primary School 70.5%
Households without Desktop Computer Access

37.8% Households with Internet Access 77.6%
Households
with Television
Access

61.9% Households with Radio Access



Economic Constraints

0

Rate

SCORE: 0.252 RAN

RANK: 6/8 ASSESSED

0.46Economic
Dependency

Ratio

у

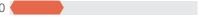
72.7%Labor Force
Participation

5.0%Population
Receiving
Remittances

12.3% Unemployment Rate



Environmental Stress



1 SCORE: 0.255

RANK: 5/8 ASSESSED

7.2%
Coastline
Exposure to
Local or Global
Threats

9.5% Tree Cover Loss



Gender Inequality

0

SCORE: 0.257

RANK: 6/8 ASSESSED

0.09Female to Male Labor Ratio

0.16Female to Male Secondary Education Attainment



RANK: 5 / 8 ASSESSED

SCORE: 0.350



Housing and Transportation Vulnerability

1 **SCORE: 0.354 RANK: 5/8** ASSESSED

64.6%

Housing Built Prior to 2000 Household Overcrowding

4.9%

38.9% Households without Private Vehicle

9.8% Population with Unmet Housing Need



Household Composition and Vulnerable Health

1 SCORE: 0.106 RANK: 7/8 ASSESSED

2.24

Prevalence of Disability (per 100 persons) 31.0% Prevalence of

Chronic Illness (per 100 persons) **7.4%**Population
Age 65 and

Over

24.0%Population
Under Age 15



Population Pressures

0

1 SCORE: 0.765 RANK: 1/8 ASSESSED

1.5% Average Annual Population Change 692.7
Population
Density
(persons per

sq km)



ISLAND CAPACITY (IC)

RANK: 3 / 8 ASSESSED

SCORE: 0.476

Saint John exhibits weaker Island Capacity in the areas of Communications Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.037 RANK: 8/8 ASSESSED

50.6% Croplands -3.21Net Carbon Flux

0.8% 7.6% Protected

Protected Terrestrial Area Coastlines



Governance Capacity

SCORE: 0.422 RANK: 6/8 ASSESSED

95.9% Household Waste Disposal

Prevalence of Crime

5.8%



Infrastructure Capacity

SCORE: 0.620 RANK: 3/8 ASSESSED



Communications Capacity

SCORE: 0.388 RANK: 6/8 ASSESSED

34.3% Households with **Fixed Phones**

86.4% Households with Mobile Phones



Emergency Services Capacity

0.9

SCORE: 1.000 RANK: 1/8 ASSESSED

2.3

Average Distance to Fire Station (km)

Average Distance to Hospital or Clinic (km)

1.5 Average Distance to Police Station (km)

8.0 Average Distance to Shelter (km)



Energy Capacity

SCORE: 0.575 RANK: 3/8 ASSESSED

93.2%

95.9%

10.7% Households with Generator

Household Access to Public Electricity

Households Using Gas for Cooking

Health Care Capacity

SCORE: 0.516 RANK: 3/8 ASSESSED

48.9% 0.81

Health Insurance

Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 1/8 ASSESSED

SCORE: 0.674

Saint John exhibits weaker Logistics Capacity in the areas of Transportation Capacity and Air Support. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 1 SCORE: 0.712

3.1Average
Distance to
Seaport (km)

95.5
Distance
to External
Medium or
Large Seaport
(km)

0.16Port Density (ports per km of coastline)



Air Support

0

SCORE: 0.514

RANK: 2/8 ASSESSED

RANK: 3/8 ASSESSED

86.1Distance to
External C130
Airport (km)

3.9Average
Distance to
Airport or
Heliport (km)



Transportation Capacity

8.4

1 SC

1 SCORE: 0.500 RANK: 2/8 ASSESSED

0.22Gas Stations per 1,000

Persons

Road Density (km of roads per sq km)



Warehouse Access

0

SCORE: 0.969 RANK: 1/8 ASSESSED

3.4

Average Distance to Warehouse (km) O.O Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 3 / 8 ASSESSED

SCORE: 0.575



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 2 / 8 ASSESSED

SCORE: 0.613

KEY FACTORS INFLUENCING RESILIENCE

Saint John's score and ranking are due to Low Vulnerability combined with Moderate Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Population Pressures

Rapid changes in population size and distribution can alter population vulnerability characteristics presenting planning challenges and destabilizing social, economic, and environmental systems. Increased population pressures require disaster managers to realign needs, institutional structures, and available resources to support delivery of basic resources before, during, and after an event.



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

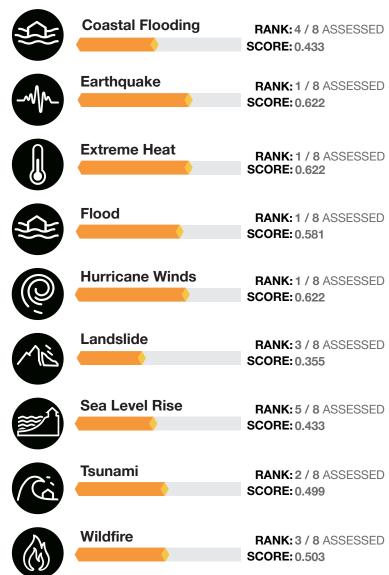


Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



HAZARD-SPECIFIC RISK (HSR)





MULTI-HAZARD RISK (MHR)

1/8

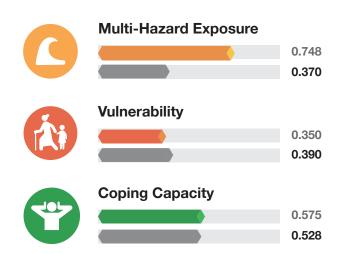
RANK AMONG PARISHES/DEPENDENCIES Score: 0.508



Saint John's score and ranking are due to Very High Multi-Hazard Exposure combined with Low Vulnerability and Moderate Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







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ANTIGUA & BARBUDA SAINT MARY

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT MARY

Area: 59.05 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- High

Score: 0.470 • Rank: 2/8



Population (2011 Census)

7,331



RESILIENCE (R)

- Moderate

Score: 0.579 • Rank: 3/8



Prevalence of Chronic Illness

30.6%



MULTI-HAZARD EXPOSURE (MHE)

- High

Score: 0.569 • Rank: 2/8



Unemployment Rate

15.3%



VULNERABILITY (V)

- Very Low

Score: 0.347 • Rank: 6/8



Population with Unmet Housing Need

10.4%



COPING CAPACITY (CC)

Score: 0.505 • Rank: 5/8



Households with Internet Access

33.0%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 2/8 ASSESSED

SCORE: 0.569



MHE 0.569

Raw MHE 0.201

Relative MHE 0.936

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

5%

417

Buildings Exposed: 5%

Critical Infrastructure Exposed: 20%



Hurricane Winds

100%

& 8,160

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

& 8,160

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

67%

5,470

Buildings Exposed: 70%

Critical Infrastructure Exposed: 68%



Extreme Heat

100%

8.160

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%

Sea Level Rise

22%

1,770

Buildings Exposed: 4%

Critical Infrastructure Exposed: 20%



Flood

45%

3.710

Buildings Exposed: 50%

Critical Infrastructure Exposed: 32%



Tsunami

22%

1.770

Buildings Exposed: 21%

Critical Infrastructure Exposed: 40%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 2/8 ASSESSED

SCORE: 0.569

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

2%

129

Buildings Exposed: 1%

Critical Infrastructure Exposed: 6%



VULNERABILITY (V)

RANK: 6 / 8 ASSESSED

SCORE: 0.347

Vulnerability in Saint Mary is primarily driven by Information Access Vulnerability and Housing and Transportation Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

1 SCORE: 0.613 **RANK: 2/8 ASSESSED**

23.7%

Highest Education Primary School

76.5% Households without

33.0% Households with Internet Access

75.9%

Households with Television Access

68.5% Households with Radio Access



Economic Constraints

Desktop Computer Access

Rate

SCORE: 0.390

RANK: 5/8 ASSESSED

0.48 Economic Dependency Ratio

70.9% Labor Force Participation

4.4% Population Receiving Remittances

15.3% Unemployment Rate



Environmental Stress



SCORE: 0.167

SCORE: 0.264

RANK: 6/8 ASSESSED

RANK: 5/8 ASSESSED

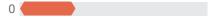
27.3% Coastline Exposure to Local or Global

Threats

2.8% Tree Cover



Gender Inequality



0.23

Female to Male Labor Ratio

0.03

Female to Male Secondary Education Attainment



RANK: 6 / 8 ASSESSED

SCORE: 0.347



Housing and Transportation Vulnerability

1 **SCORE: 0.505 RANK: 3/8** ASSESSED

67.6%

Housing Built Prior to 2000 Household Overcrowding

5.1%

44.0%Households without Private Vehicle

10.4% Population with Unmet Housing Need



Household Composition and Vulnerable Health

1 **SCORE: 0.205 RANK: 4/8** ASSESSED

2.55

Prevalence of Disability (per 100 persons) **30.6%**Prevalence of Chronic Illness

(per 100 persons)

8.2%Population
Age 65 and
Over

24.4%Population
Under Age 15



Population Pressures

0

1 SCORE: 0.284 RANK: 4/8 ASSESSED

1.2%

Average Annual Population Change **124.2**Population
Density
(persons per
sq km)



ISLAND CAPACITY (IC)

RANK: 5 / 8 ASSESSED

SCORE: 0.526

Saint Mary exhibits weaker Island Capacity in the areas of Energy Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.276 RANK: 5/8 ASSESSED

37.7% Croplands -13.20Net Carbon Flux

43.7% Protected Terrestrial Area 34.0% Protected Coastlines



Governance Capacity

SCORE: 0.750 RANK: 2/8 ASSESSED

93.0% Household Waste Disposal

2.7% Prevalence of Crime



Infrastructure Capacity

SCORE: 0.449 RANK: 5/8 ASSESSED



Communications Capacity

SCORE: 0.581 RANK: 4/8 ASSESSED

41.5% Households with **Fixed Phones**

85.2% Households with Mobile Phones



Emergency Services Capacity

SCORE: 0.611 **RANK: 4/8 ASSESSED**

4.0 Average Distance to Fire Station (km)

2.5 Average Distance to Hospital or Clinic (km) 2.2 Average Distance to Police Station (km)

1.0 Average Distance to Shelter (km)

Energy Capacity

SCORE: 0.230 RANK: 6/8 ASSESSED

91.9% 93.0% Household Access Households Using to Public Electricity Gas for Cooking

6.5% Households with Generator



Health Care Capacity

SCORE: 0.376 RANK: 5/8 ASSESSED

52.1%

0.25 Hospitals and Clinics per 1,000 Persons

Health Insurance



LOGISTICS CAPACITY (LC)

RANK: 3 / 8 ASSESSED

SCORE: 0.485

Saint Mary exhibits weaker Logistics Capacity in the areas of Transportation Capacity and Air Support. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 SCORE: 0.527

3.3Average
Distance to
Seaport (km)

90.8
Distance
to External
Medium or
Large Seaport
(km)

0.02Port Density (ports per km of coastline)



Air Support

0

4.0

SCORE: 0.490 RA

RANK: 4/8 ASSESSED

RANK: 5/8 ASSESSED

87.5 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



Transportation Capacity

0

1 SCORE: 0.175 RANK: 7/8 ASSESSED

0.25Gas Stations per 1,000
Persons

2.4Road Density (km of roads per sq km)



60

Warehouse Access

0

SCORE: 0.746 RANK: 3/8 ASSESSED

8.7 Average Distance to Warehouse (km) 2.7
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 5 / 8 ASSESSED

SCORE: 0.505



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 3 / 8 ASSESSED

SCORE: 0.579

KEY FACTORS INFLUENCING RESILIENCE

Saint Mary's score and ranking are due to Very Low Vulnerability combined with Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Housing and Transportation Vulnerability

Populations living in older housing, and prior to the enactment of modern building codes, are more susceptible to structural damage and losses as a result of hazard impacts. In addition, higher density living situations such as crowded housing, as well as populations with unmet housing needs, increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 2 / 8 ASSESSED SCORE: 0.526
	Earthquake	RANK: 4 / 8 ASSESSED SCORE: 0.497
	Extreme Heat	RANK: 4 / 8 ASSESSED SCORE: 0.497
	Flood	RANK: 4 / 8 ASSESSED SCORE: 0.320
	Hurricane Winds	RANK: 4 / 8 ASSESSED SCORE: 0.497
MÈ	Landslide	RANK: 1 / 8 ASSESSED SCORE: 0.632
	Sea Level Rise	RANK: 2 / 8 ASSESSED SCORE: 0.561
(Cá	Tsunami	RANK: 1 / 8 ASSESSED SCORE: 0.514
	Wildfire	RANK: 4 / 8 ASSESSED SCORE: 0.292



MULTI-HAZARD RISK (MHR)

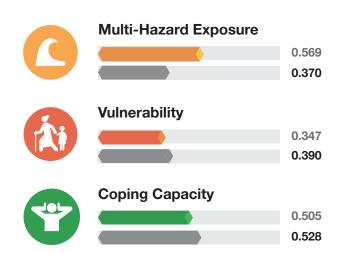
2/8

RANK AMONG PARISHES/DEPENDENCIES Score: 0.470

Saint Mary's score and ranking are due to High Multi-Hazard Exposure combined with Very Low Vulnerability and Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







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ANTIGUA & BARBUDA SAINT PAUL

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT PAUL

Area: 47.92 km2





RISK AND VULNERABILITY





MULTI-HAZARD RISK (MHR)

- Moderate

Score: 0.463 • Rank: 3/8



Population (2011 Census)

8.116



RESILIENCE (R)

- Low

Score: 0.566 • Rank: 4/8



Prevalence of Chronic Illness

29.6%



MULTI-HAZARD EXPOSURE (MHE)

- Moderate

Score: 0.520 • Rank: 3/8



Unemployment Rate

20.6%



VULNERABILITY (V)

- High

Score: 0.407 • Rank: 2/8



Population with Unmet Housing Need

13.1%



COPING CAPACITY (CC)

Score: 0.539 • Rank: 4/8



Households with Internet Access

36.3%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 3 / 8 ASSESSED

SCORE: 0.520



MHE 0.520

Raw MHE 0.169

Relative MHE 0.871

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

3%

228

Buildings Exposed: 3%

Critical Infrastructure Exposed: 31%



Hurricane Winds

100%

8,070

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

8,070

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

37%

2,960

Buildings Exposed: 31%

Critical Infrastructure Exposed: 29%



Extreme Heat

100%

& 8,070

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

9%

4 699

Buildings Exposed: 2%

Critical Infrastructure Exposed: 27%



Flood

73%

5.860

Buildings Exposed: 79%

Critical Infrastructure Exposed: 65%



Tsunami

9%

4 699

Buildings Exposed: 11%

Critical Infrastructure Exposed: 33%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 3/8 ASSESSED

SCORE: 0.520

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

1%

4 79

Buildings Exposed: 1%

Critical Infrastructure Exposed: 0%

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RANK: 2 / 8 ASSESSED

SCORE: 0.407

Vulnerability in Saint Paul is primarily driven by Housing and Transportation Vulnerability and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

1 SCORE: 0.461 RANK: 4/8 ASSESSED

19.7%
Highest
Education
Primary School

Households without Desktop Computer Access

74.0%

36.3%Households with Internet Access

79.9% Households with Television Access 67.3% Households with Radio Access



Economic Constraints

1 SCORE: 0.518

0.48Economic
Dependency
Ratio

67.7%Labor Force Participation Rate

3.7%Population
Receiving
Remittances

20.6% Unemployment Rate

SCORE: 0.062



Environmental Stress

0

15.7% Coastline Exposure to Local or Global Threats 1.9% Tree Cover Loss



Gender Inequality

0

0.10 0.25 Female to Male Female

Labor Ratio

Female to Male Secondary Education Attainment SCORE: 0.600

RANK: 2/8 ASSESSED

RANK: 2/8 ASSESSED

RANK: 7/8 ASSESSED



RANK: 2 / 8 ASSESSED

SCORE: 0.407



Housing and Transportation Vulnerability

1 **SCORE: 0.727 RANK: 2/8** ASSESSED

70.3%

Housing Built Prior to 2000 **6.4%**Household
Overcrowding

38.3% Households without Private Vehicle 13.1% Population with Unmet Housing Need



Household Composition and Vulnerable Health

1 **SCORE: 0.212 RANK: 3/8** ASSESSED

2.98

Prevalence of Disability (per 100 persons) 29.6%
Prevalence of Chronic Illness

(per 100 persons)

e of Population ness Age 65 and Over

7.8%

24.5%Population
Under Age 15



Population Pressures

0

1 SCORE: 0.270 RANK: 5/8 ASSESSED

1.0% Average Annual Population

Change

169.4
Population
Density
(persons per
sq km)



ISLAND CAPACITY (IC)

RANK: 4 / 8 ASSESSED

SCORE: 0.606

Saint Paul exhibits weaker Island Capacity in the areas of Energy Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.471 RANK: 4/8 ASSESSED

5.0% -6.3440.7% Croplands

84.8% Protected Net Carbon Protected Terrestrial Area Coastlines Flux



Governance Capacity

SCORE: 0.705 RANK: 5/8 ASSESSED

96.9% 4.4% Household Prevalence of Waste Disposal Crime



Infrastructure Capacity

SCORE: 0.578 RANK: 4/8 ASSESSED



Communications Capacity

SCORE: 0.635 RANK: 3/8 ASSESSED

41.7% 87.0% Households with Households with **Fixed Phones** Mobile Phones



Emergency Services Capacity

SCORE: 0.767 RANK: 2/8 ASSESSED

4.6 1.8 Average Distance to Fire Station (km)

1.7 Average Distance to Average Distance to Police Station (km) Hospital or Clinic (km)

1.0 Average Distance to Shelter (km)



SCORE: 0.399 RANK: 4/8 ASSESSED

91.6% 96.9% Household Access Households Using to Public Electricity Gas for Cooking

7.8% Households with Generator



Health Care Capacity

SCORE: 0.510 RANK: 4/8 ASSESSED

53.0% 0.37

Health Insurance Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 5 / 8 ASSESSED

SCORE: 0.471

Saint Paul exhibits weaker Logistics Capacity in the areas of Air Support and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0

1 SCORE: 0.930

RANK: 1/8 ASSESSED

2.3 Average

Average Distance to Seaport (km) 87.7
Distance to External Medium or Large Seaport (km)

0.23Port Density (ports per km of coastline)



Air Support

0

SCORE: 0.157

RANK: 7/8 ASSESSED

84.3
Distance to
External C130
Airport (km)

12.1
Average
Distance to
Airport or
Heliport (km)



Transportation Capacity

0

1 SCORE: 0.251 RANK: 5/8 ASSESSED

0.25Gas Stations per 1,000
Persons

3.6Road Density (km of roads per sq km)



Warehouse Access

0

SCORE: 0.548 RANK: 6/8 ASSESSED

12.7 Average Distance to Warehouse (km) 8.1 Distance to CDEMA Sub-Regional Focal Point (km)

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Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 4 / 8 ASSESSED

SCORE: 0.539



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 4 / 8 ASSESSED

SCORE: 0.566

KEY FACTORS INFLUENCING RESILIENCE

Saint Paul's score and ranking are due to High Vulnerability combined with Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Housing and Transportation Vulnerability

Populations living in older housing, and prior to the enactment of modern building codes, are more susceptible to structural damage and losses as a result of hazard impacts. In addition, higher density living situations such as crowded housing, as well as populations with unmet housing needs, increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 3 / 8 ASSESSED SCORE: 0.472
-Mr	Earthquake	RANK: 3 / 8 ASSESSED SCORE: 0.499
	Extreme Heat	RANK: 3 / 8 ASSESSED SCORE: 0.499
	Flood	RANK: 3 / 8 ASSESSED SCORE: 0.433
	Hurricane Winds	RANK: 3 / 8 ASSESSED SCORE: 0.499
MÈ	Landslide	RANK: 2 / 8 ASSESSED SCORE: 0.446
	Sea Level Rise	RANK: 3 / 8 ASSESSED SCORE: 0.495
	Tsunami	RANK: 5 / 8 ASSESSED SCORE: 0.346
	Wildfire	RANK: 5 / 8 ASSESSED SCORE: 0.133



MULTI-HAZARD RISK (MHR)

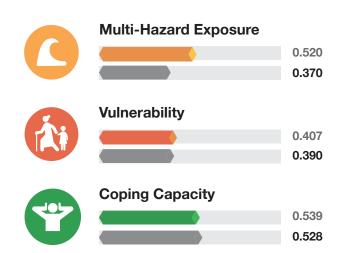
3/8

RANK AMONG PARISHES/DEPENDENCIES Score: 0.463

Saint Paul's score and ranking are due to Moderate Multi-Hazard Exposure combined with High Vulnerability and Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







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ANTIGUA & BARBUDA

SAINT PETER

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT PETER

Area: 33.02 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very Low

Score: 0.343 • Rank: 6/8



Population (2011 Census)

5,317



RESILIENCE (R)

- Low

Score: 0.563 • Rank: 5/8



Prevalence of Chronic Illness

33.2%



MULTI-HAZARD EXPOSURE (MHE)

- Low

Score: 0.156 • Rank: 5/8



Unemployment Rate

14.5%



VULNERABILITY (V)

- Moderate

Score: 0.376 • Rank: 3/8



Population with Unmet

Housing Need

10.5%



COPING CAPACITY (CC)

- Very Low

Score: 0.502 • Rank: 6/8



Households with Internet Access

32.3%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 8 ASSESSED

SCORE: 0.156



MHE 0.156

Raw MHE 0.032

Relative MHE 0.280

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

2%

~ 70

Buildings Exposed: 4%

Critical Infrastructure Exposed: 22%



Hurricane Winds

100%

4,130

Buildings Exposed: **100%**

Critical Infrastructure Exposed: 100%



Earthquake

100%

4,130

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

7%

291

Buildings Exposed: 6%

Critical Infrastructure Exposed: 0%



Extreme Heat

100%

4,130

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%

Sea Level Rise

9%

369

Buildings Exposed: 3%

Critical Infrastructure Exposed: **11%**



Flood

23%

\$ 949

Buildings Exposed: 27%

Critical Infrastructure Exposed: 14%



Tsunami

9%

4 369

Buildings Exposed: 10%

Critical Infrastructure Exposed: 44%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 8 ASSESSED

SCORE: 0.156

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire

16%

4 676

Buildings Exposed: 13%

Critical Infrastructure Exposed: 11%



RANK: 3 / 8 ASSESSED

SCORE: 0.376

Vulnerability in Saint Peter is primarily driven by Environmental Stress and Information Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

SCORE: 0.453 **RANK: 6/8 ASSESSED**

12.0%

Highest Education Primary School

71.9% Households without Desktop Computer

32.3%

76.4% Households Households with Internet with Television Access Access

66.8% Households with Radio Access



Economic Constraints

Access

SCORE: 0.425

RANK: 4/8 ASSESSED

RANK: 3/8 ASSESSED

0.46 Economic Dependency Ratio

65.5% Labor Force Participation Rate

4.5% Population Receiving Remittances

14.5% Unemployment Rate

SCORE: 0.669



Environmental Stress



Coastline Exposure to Local or Global Threats

43.2%

0.05 Female to Male

Labor Ratio

15.0% Tree Cover



Gender Inequality



Female to Male Secondary Education Attainment **SCORE: 0.286**

RANK: 4/8 ASSESSED



RANK: 3 / 8 ASSESSED

SCORE: 0.376



Housing and Transportation Vulnerability

1 SCORE: 0.416 **RANK: 4/8** ASSESSED

65.3%

Housing Built Prior to 2000

Household Overcrowding

5.4%

37.1% Households without Private Vehicle

10.5% Population with Unmet Housing Need



Household Composition and Vulnerable Health

1 SCORE: 0.168 **RANK: 5/8 ASSESSED**

2.64

Prevalence of Disability (per 100 persons)

33.2% Prevalence of

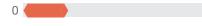
Population Age 65 and Chronic Illness Over (per 100 persons)

7.0%

24.5% Population Under Age 15



Population Pressures



1 SCORE: 0.213 **RANK: 6/8 ASSESSED**

0.8% Average Annual Population

Change

Population Density (persons per sq km)

161.0



ISLAND CAPACITY (IC)

RANK: 6 / 8 ASSESSED

SCORE: 0.519

Saint Peter exhibits weaker Island Capacity in the areas of Health Care Capacity and Energy Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

1 SCORE: 0.543 RANK: 1/8 ASSESSED

10.7% Croplands -1.77
Net Carbon

11.0% Protected Terrestrial Area 100% Protected Coastlines



Governance Capacity

1 SCORE: 0.750 RANK: 2/8 ASSESSED

97.2% Household Waste Disposal **4.2%**Prevalence of Crime



Infrastructure Capacity

1 SCORE: 0.369 RANK: 6/8 ASSESSED



Communications Capacity

1 SCORE: 0.498

37.0% 87.4%
Households with Fixed Phones Mobile Phones



Emergency Services Capacity

0

1 SCORE: 0.583 RANK: 5/8 ASSESSED

RANK: 5/8 ASSESSED

4.3Average Distance to Fire Station (km)

3.4Average Distance to Hospital or Clinic (km)

1.7Average Distance to Police Station (km)

1.3
Average Distance to Shelter (km)

Energy Capacity

0

1 SCORE: 0.393 RANK: 5/8 ASSESSED

91.2% Household Access

to Public Electricity

Households Using Gas for Cooking

97.2%

8.1% Households with Generator



Health Care Capacity

0 **♦** 1 **SCORE: 0.000 RANK: 7/8** ASSESSED

48.7%Health Insurance

0.00

ce Hospitals and Clinics per 1,000 Persons

85



LOGISTICS CAPACITY (LC)

RANK: 3 / 8 ASSESSED

SCORE: 0.485

Saint Peter exhibits weaker Logistics Capacity in the areas of Transportation Capacity and Air Support. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 SCORE: 0.629

3.4
Average
Distance to
Seaport (km)

94.6
Distance
to External
Medium or
Large Seaport
(km)

0.11Port Density (ports per km of coastline)



Air Support

0 🔷 1

6.2

SCORE: 0.345

RANK: 6/8 ASSESSED

RANK: 4/8 ASSESSED

91.2 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



Transportation Capacity

0

1 SCORE: 0.235 RAN

RANK: 6/8 ASSESSED

0.24Gas Stations per 1,000
Persons

3.5Road Density (km of roads per sq km)



86

Warehouse Access

0

SCORE: 0.730 RANK: 4/8 ASSESSED

9.1 Average Distance to Warehouse (km) 2.9
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 6 / 8 ASSESSED

SCORE: 0.502



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 5 / 8 ASSESSED

SCORE: 0.563

KEY FACTORS INFLUENCING RESILIENCE

Saint Peter's score and ranking are due to Moderate Vulnerability combined with Very Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



HAZARD-SPECIFIC RISK (HSR)

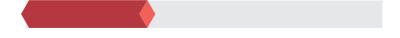
	Coastal Flooding	RANK: 6 / 8 ASSESSED SCORE: 0.318
-M/V-	Earthquake	RANK: 6 / 8 ASSESSED SCORE: 0.476
	Extreme Heat	RANK: 6 / 8 ASSESSED SCORE: 0.476
	Flood	RANK: 6 / 8 ASSESSED SCORE: 0.196
	Hurricane Winds	RANK: 6 / 8 ASSESSED SCORE: 0.476
MÈ	Landslide	RANK: 6 / 8 ASSESSED SCORE: 0.135
	Sea Level Rise	RANK: 7 / 8 ASSESSED SCORE: 0.283
(3)	Tsunami	RANK: 6 / 8 ASSESSED SCORE: 0.313
	Wildfire	RANK: 1 / 8 ASSESSED SCORE: 0.561



MULTI-HAZARD RISK (MHR)

6/8

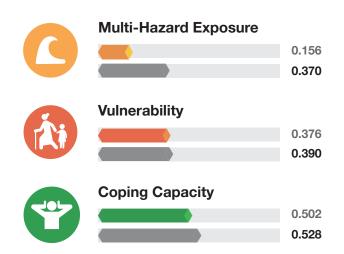
RANK AMONG PARISHES/DEPENDENCIES Score: 0.343



Saint Peter's score and ranking are due to Low Multi-Hazard Exposure combined with Moderate Vulnerability and Very Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

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ANTIGUA & BARBUDA - SAINT PHILIP

NDPBA SUBNATIONAL PROFILE



ANTIGUA & BARBUDA SAINT PHILIP

Area: 44.03 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

Score: 0.355 • Rank: 5/8



Population (2011 Census)

3.322



RESILIENCE (R)

- Very Low

Score: 0.481 • Rank: 7/8



Prevalence of Chronic Illness

49.6%



MULTI-HAZARD EXPOSURE (MHE)

- Very Low

Score: 0.026 • Rank: 7/8



Unemployment Rate

7.5%



VULNERABILITY (V)

- Low

Score: 0.363 • Rank: 4/8



Population with Unmet Housing Need

8.8%



COPING CAPACITY (CC)

- Very Low

Score: 0.324 • Rank: 7/8



Households with Internet Access

36.0%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 7 / 8 F SCORE: 0.026



Raw MHE 0.052

Relative MHE 0.000

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

4%

\$ 126

Buildings Exposed: 6%

Critical Infrastructure Exposed: 6%



Hurricane Winds

100%

3,170

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

3,170

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

4%

4 136

Buildings Exposed: 4%

Critical Infrastructure Exposed: 5%



Extreme Heat

100%

3.170

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

8%

249

Buildings Exposed: 5%

Critical Infrastructure Exposed: 5%



Flood

1%

36

Buildings Exposed: 1%

Critical Infrastructure Exposed: 15%



Tsunami

8%

249

Buildings Exposed: 10%

Critical Infrastructure Exposed: 6%

NOTE: Population exposure values for Antigua and Barbuda are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 7 / 8 ASSESSED

SCORE: 0.026

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Wildfire 10%

4 315

Buildings Exposed: 7%

Critical Infrastructure Exposed: 13%



VULNERABILITY (V)

RANK: 4 / 8 ASSESSED

SCORE: 0.363

Vulnerability in Saint Philip is primarily driven by Information Access Vulnerability and Household Composition and Vulnerable Health. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

SCORE: 0.741 **RANK: 1/8 ASSESSED**

14.9%

Highest Education Primary School

74.0% Households without

Desktop Computer Access

36.0% Households with Internet Access

66.3% Households with Television Access

58.2% Households with Radio Access



Economic Constraints

SCORE: 0.101

RANK: 7/8 ASSESSED

0.49

Economic Dependency Ratio

76.5%

Labor Force Participation Rate

2.5% Population Receiving Remittances

7.5% Unemployment Rate



Environmental Stress



SCORE: 0.299

RANK: 4/8 ASSESSED

42.6% Coastline Exposure to Local or Global

Threats

3.8% Tree Cover



Gender Inequality



SCORE: 0.512

RANK: 3/8 ASSESSED

0.16 Female to Male Labor Ratio

Female to Male Secondary Education Attainment



RANK: 4 / 8 ASSESSED

SCORE: 0.363



Housing and Transportation Vulnerability

1 **SCORE: 0.258 RANK: 6/8** ASSESSED

70.7%

Housing Built Prior to 2000 Household Overcrowding

2.7%

30.8% Households without Private Vehicle 8.8%
Population
with Unmet
Housing Need



Household Composition and Vulnerable Health

10.5%

Population

Age 65 and

Over

3.08

Prevalence of Disability (per 100 persons) 49.6%
Prevalence

Prevalence of Chronic Illness (per 100 persons) 22.6%

Population Under Age 15



Population Pressures

0

1 SCORE: 0.048 RANK: 7/8 ASSESSED

0.3%Average Annual Population Change

75.5Population
Density
(persons per sq km)



ISLAND CAPACITY (IC)

RANK: 7 / 8 ASSESSED

SCORE: 0.254

Saint Philip exhibits weaker Island Capacity in the areas of Energy Capacity and Communications Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Environmental Capacity

SCORE: 0.275 RANK: 6/8 ASSESSED

28.0% Croplands -7.30Net Carbon Flux

5.5% Protected Terrestrial Area 83.6% Protected Coastlines



Governance Capacity

SCORE: 0.280 RANK: 7/8 ASSESSED

88.7% 4.1% Household Waste Disposal

Prevalence of Crime



Infrastructure Capacity

SCORE: 0.233 **RANK: 7/8 ASSESSED**



Communications Capacity

SCORE: 0.232

RANK: 7/8 ASSESSED

41.7% Households with **Fixed Phones**

71.7% Households with Mobile Phones



Emergency Services Capacity

SCORE: 0.288 RANK: 7/8 ASSESSED

10.2 Average Distance to

Fire Station (km)

3.6

Average Distance to Hospital or Clinic (km)

1.7 Average Distance to Police Station (km)

2.0 Average Distance to Shelter (km)



Energy Capacity

88.7%

SCORE: 0.104 RANK: 7/8 ASSESSED

92.6%

Household Access Households Using to Public Electricity Gas for Cooking

6.1% Households with Generator



Health Care Capacity

SCORE: 0.307 RANK: 6/8 ASSESSED

50.4% Health Insurance 0.32

Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 7 / 8 ASSESSED

SCORE: 0.394

Saint Philip exhibits weaker Logistics Capacity in the areas of Air Support and Maritime Logistics. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

1 SCORE: 0.321

5.6Average
Distance to
Seaport (km)

89.9
Distance to External Medium or Large Seaport (km)

0.00Port Density (ports per km of coastline)



Air Support

0

1 SCORE: 0.122

RANK: 8/8 ASSESSED

RANK: 7/8 ASSESSED

86.4Distance to
External C130
Airport (km)

12.2
Average
Distance to
Airport or
Heliport (km)



Transportation Capacity

1 **SCORE: 0.706 RANK: 1/8** ASSESSED

0.63Gas Stations per 1,000

Persons

3.5Road Density (km of roads per sq km)



Warehouse Access

0

SCORE: 0.428 RANK: 7/8 ASSESSED

15.9 Average Distance to Warehouse (km) 8.0
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Antigua & Barbuda was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 7 / 8 ASSESSED

SCORE: 0.324



Resilience in Antigua & Barbuda was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 7 / 8 ASSESSED

SCORE: 0.481

KEY FACTORS INFLUENCING RESILIENCE

Saint Philip's score and ranking are due to Low Vulnerability combined with Very Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Household Composition and Vulnerable Health

Households with dependent populations, such as the very young, elderly, chronically ill, and/ or the disabled may have more difficulty with mobilizing and evacuating in a timely fashion and therefore become even more susceptible to harm during times of disaster. Further, the deaf or hard of hearing may not hear audible hazard alerts. Once evacuated, these populations will require additional services and care considerations in the response aftermath and during recovery. Plans and strategies must consider the special accommodations for these populations during response and recovery, including evacuation and sheltering.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Maritime Logistics

Diverse maritime transport options, within and outside the country, offer crucial support for humanitarian efforts and the transit and delivery of disaster relief supplies. Protecting and maintaining port infrastructure and equipment can help safeguard these key assets and sustain functional operations during a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 5 / 8 ASSESSED SCORE: 0.418
-Mr	Earthquake	RANK: 2 / 8 ASSESSED SCORE: 0.526
	Extreme Heat	RANK: 2 / 8 ASSESSED SCORE: 0.526
	Flood	RANK: 7 / 8 ASSESSED SCORE: 0.039
	Hurricane Winds	RANK: 2 / 8 ASSESSED SCORE: 0.526
MÈ	Landslide	RANK: 5 / 8 ASSESSED SCORE: 0.150
	Sea Level Rise	RANK: 4 / 8 ASSESSED SCORE: 0.451
(Cá	Tsunami	RANK: 7 / 8 ASSESSED SCORE: 0.223
	Wildfire	RANK: 2 / 8 ASSESSED SCORE: 0.507

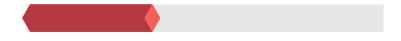


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MULTI-HAZARD RISK (MHR)

5/8

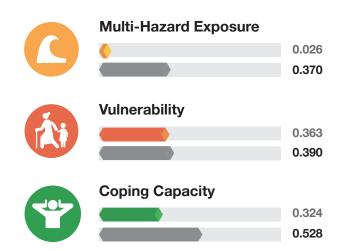
RANK AMONG PARISHES/DEPENDENCIES Score: 0.355



Saint Philip's score and ranking are due to Very Low Multi-Hazard Exposure combined with Low Vulnerability and Very Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







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