

BARBADOS

SAINT JOSEPH

NDPBA SUBNATIONAL PROFILE



BARBADOS SAINT JOSEPH

Area: 26 km2



RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- High

Score: 0.517 • Rank: 3/11



Population (2010 Census)

5,939



RESILIENCE (R)

- Very Low

Score: 0.338 • Rank: 11/11



Population Density (persons per sq km)

228



MULTI-HAZARD EXPOSURE (MHE)

- Very Low

Score: 0.229 • Rank: 9/11



Poverty Rate

20.3%



VULNERABILITY (V)

- Very High

Score: 0.594 • Rank: 2/11



Housing Built Prior to

1991

65.0%



COPING CAPACITY (CC)

- Very Low

Score: 0.270 • Rank: 11/11



Households with Unimproved Sanitation

13.4%

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MULTI-HAZARD EXPOSURE (MHE)

RANK: 9 / 11 PARISHES ASSESSED

SCORE: 0.229



MHE 0.229

Raw MHE 0.008

Relative MHE 0.449

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

2%

\$ 122

Buildings Exposed: 1%

Critical Infrastructure Exposed: 7%



Hurricane Winds

100%

6,330

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

6,330

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

80%

5,070

Buildings Exposed: 77%

Critical Infrastructure Exposed: **80%**



Extreme Heat

0%

- 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

1%

4 91

Buildings Exposed: 1%

Critical Infrastructure Exposed: **7%**



Flash Flood

27%

1,740

Buildings Exposed: 25%

Critical Infrastructure Exposed: 44%



Tsunami

0%

2 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 9 / 11 PARISHES ASSESSED

SCORE: 0.229

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcanic Ashfall

100%

6,330

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

<1%

20

Buildings Exposed: <1%

Critical Infrastructure Exposed: **0%**

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VULNERABILITY (V)

RANK: 2 / 11 PARISHES ASSESSED

SCORE: 0.594

Vulnerability in Saint Joseph 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

0 1 SCORE: 0.645

81.1% Primary School Attendance Rate **53.4%**Secondary
School
Attendance
Rate

77.3% Household Access to Radio 90.6% Household Access to Television



Economic Constraints

0

1 SCORE: 0.559

RANK: 4/11 PARISHES ASSESSED

RANK: 3/11 PARISHES ASSESSED

0.50Economic
Dependency
Ratio

20.3% Poverty Rate 29.8% GINI Coefficient



Environmental Stress

0

SCORE: 0.594

RANK: 2/11 PARISHES ASSESSED

62.8%

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



Gender Inequality

0

SCORE: 0.656

RANK: 2/11 PARISHES ASSESSED

0.16Female to Mal

Female to Male Labor Ratio **0.07**Female to Male Secondary School Attendance



RANK: 2 / 11 PARISHES ASSESSED

SCORE: 0.594



Housing and Transportation Vulnerability

SCORE: 0.756 RANK: 3/11 PARISHES ASSESSED

65.0%

Housing Built Prior to 1991

20.0% Household Overcrowding

47.7% Households without a Private Vehicle



Household Composition and Vulnerable Health

SCORE: 0.617 **RANK: 2/11 PARISHES ASSESSED** 1

4.1

Prevalence of Disability (per 100 persons)

12.2% Population

Age 65 and

25.2% Population Under Age 18



Population Pressures

228

Over

1 SCORE: 0.393 **RANK: 3/11 PARISHES ASSESSED**

1.4% Average Annual Population Change

Population Density (persons per sq km)



Clean Water Access Vulnerability

1 SCORE: 0.529 RANK: 3/11 PARISHES ASSESSED

92.2% Households

with Piped Water

13.4% Households with Unimproved Sanitation

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ISLAND CAPACITY (IC)

RANK: 9 / 11 PARISHES ASSESSED

SCORE: 0.325

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



Environmental Capacity

SCORE: 0.220 RANK: 6/11 PARISHES ASSESSED

14.6% Croplands -1.2 Net Carbon Flux

1.9% Protected Area

0.0% Protected Coastlines



Infrastructure Capacity

SCORE: 0.369 RANK: 9/11 PARISHES ASSESSED



Communications Capacity

0 **SCORE: 0.025 RANK: 11/11 PARISHES ASSESSED**

68.3% Households with Fixed

42.4% Households with Computer 35.4% Households with Internet Access



Emergency Services and Health Care Capacity

1 SCORE: 0.349 **RANK: 10/11 PARISHES ASSESSED** 4.7 2.1 7.1 1.6 0.0 Average Average Hospitals Average Average Distance to Distance to and Clinics Distance to Distance to Police Station Shelter (km) per 10,000 Fire Station Hospital or Persons (km)



Energy Capacity

Clinic (km)

SCORE: 0.734

RANK: 4/11 PARISHES ASSESSED

97.2% Households with Electric

Lighting

(km)

94.8% Households Using Gas for Cooking



LOGISTICS CAPACITY (LC)

RANK: 11 / 11 PARISHES ASSESSED

SCORE: 0.215

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



Maritime Logistics



SCORE: 0.154

RANK: 11/11 PARISHES ASSESSED

9.0

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

222.2

0.00Port Density (ports per km of coastline)



Air Support



1 SCORE: 0.234

RANK: 10/11 PARISHES ASSESSED

160.1Distance to External C130 Airport (km)

13.0 Average Distance to Airport or Heliport (km)



Transportation Capacity



1 SCORE: 0.044

RANK: 11/11 PARISHES ASSESSED

0.00

Gas Stations per 1,000 Persons **4.1**Road Density (km of roads per sq km)



Warehouse Access



1 SCORE: 0.430

RANK: 8/11 PARISHES ASSESSED

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14.2

Average Distance to Warehouse (km) 10.8 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 Barbados was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 11 / 11 PARISHES ASSESSED

SCORE: 0.270



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

RANK: 11 / 11 PARISHES ASSESSED

SCORE: 0.338

KEY FACTORS INFLUENCING RESILIENCE

Saint Joseph's score and ranking are due to Very High Vulnerability combined with Very 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 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.



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.



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.

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HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 5 / 11 PARISHES ASSESSED SCORE: 0.443
-Mr-	Earthquake	RANK: 3 / 11 PARISHES ASSESSED SCORE: 0.581
	Extreme Heat	RANK: 11 / 11 PARISHES ASSESSED SCORE: 0.000
	Flash Flood	RANK: 6 / 11 PARISHES ASSESSED SCORE: 0.345
	Hurricane Winds	RANK: 3 / 11 PARISHES ASSESSED SCORE: 0.581
MÈ	Landslide	RANK: 1 / 11 PARISHES ASSESSED SCORE: 0.783
	Sea Level Rise	RANK: 4 / 11 PARISHES ASSESSED SCORE: 0.455
(Ca	Tsunami •	RANK: 7 / 11 PARISHES ASSESSED SCORE: 0.000
\$	Volcano	RANK: 3 / 11 PARISHES ASSESSED SCORE: 0.581
	Wildfire	RANK: 11 / 11 PARISHES ASSESSED SCORE: 0.000



MULTI-HAZARD RISK (MHR)

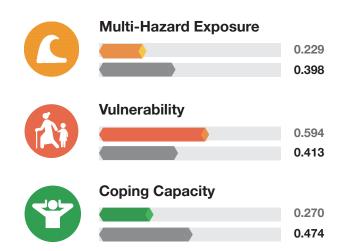
3 / 11

RANK AMONG PARISHES Score: 0.517

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

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





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Better solutions. Fewer disasters.

Safer World.

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