

**DOMINICA** 

## **SAINT ANDREW**

## **NDPBA SUBNATIONAL PROFILE**



# DOMINICA SAINT ANDREW

Area: 179.9 km2



## **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



## **MULTI-HAZARD RISK (MHR)**

- High

Score: 0.458 • Rank: 3/10



**Total Population (2011)** 

9,184



#### **RESILIENCE (R)**

- Very Low

Score: 0.473 • Rank: 9/10



Coastal Population Concentration

23.0%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Low

Score: 0.319 • Rank: 7/10



**Poverty Rate** 

38.1%



## **VULNERABILITY (V)**

- Very High

Score: 0.630 • Rank: 1/10



Households with Reduced Water Availability

36.2%



#### **COPING CAPACITY (CC)**

- Higr

Score: 0.576 • Rank: 4/10



Coastline Exposure to Local or Global Threats

88.2%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 7 / 10 PARISHES ASSESSED** 

**SCORE: 0.319** 



MHE 0.319

Raw MHE 0.532

Relative MHE 0.106

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

1%

**\$94** 

Buildings Exposed: 3%

Critical Infrastructure Exposed: 20%



**Hurricane Winds** 

100%

**8,690** 

Buildings Exposed: **100%** 

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**8,690** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

12%

**1,010** 

Buildings Exposed: 11%

Critical Infrastructure Exposed: 14%



**Extreme Heat** 

**49%** 

**4.260** 

Buildings Exposed: 50%

Critical Infrastructure Exposed: 32%



Sea Level Rise

1%

**80** 

Buildings Exposed: 3%

Critical Infrastructure Exposed: 20%



Flash Flood

12%

**1,080** 

Buildings Exposed: 14%

Critical Infrastructure Exposed: 41%



Tsunami

2%

**4** 161

Buildings Exposed: 4%

Critical Infrastructure Exposed: 20%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 7 / 10 PARISHES ASSESSED** 

**SCORE: 0.319** 

## **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

33%

**2**,830

Buildings Exposed: 32%

Critical Infrastructure Exposed: 22%



Wildfire

2%

**143** 

Buildings Exposed: 1%

Critical Infrastructure Exposed: **0%** 



## VULNERABILITY (V)

**RANK: 1 / 10 PARISHES ASSESSED** 

**SCORE: 0.630** 

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



## **Economic Constraints**

**SCORE: 0.868 RANK: 2/10 PARISHES ASSESSED** 

63.4 Economic Dependency

Ratio

38.1% Poverty Rate



### **Environmental Stress**

**SCORE: 0.618 RANK: 2/10 PARISHES ASSESSED** 

23.0% Coastal

Population Concentration

Coastline Exposure to Local or Global Threats

88.2%

48.0% Tree Cover Loss



## **Household Infrastructure Vulnerability**

1 SCORE: 0.629 **RANK: 2/10 PARISHES ASSESSED** 

11.7% Housing Built Prior to 2003

36.2% Households with Reduced Water Availability



## Household Composition and Vulnerable Health

SCORE: 0.748 **RANK: 1/10 PARISHES ASSESSED** 

6.8% Prevalence of Disability (per 100 persons)

0.4% Institutionalized Population

13.3% Population Age 65 and 25.5% Population Under Age 15



#### Population Pressures

**SCORE: 0.285 RANK: 7/10 PARISHES ASSESSED** 

1.2%

Average Annual Population Change

51.1 Population Density (persons per sq km)

16.0% Youth Bulge (population ages 15-24)



## **ISLAND CAPACITY (IC)**

**RANK: 2 / 10 PARISHES ASSESSED** 

**SCORE: 0.641** 

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



## **Environmental Capacity**

0 1

SCORE: 0.683 RANK: 1/10 PARISHES ASSESSED

0.36% Croplands **-55.2** Net Carbon

25.1% Protected Terrestrial Area

0.0% Protected Coastlines



## **Emergency Service and Health Care Capacity**

0

1 SCORE: 0.623

**RANK: 5/10 PARISHES ASSESSED** 

**0.9**Average
Distance to
Shelter (km)

1.0 Average Distance to Hospital or Clinic (km) 4.8 Average Distance to Fire Station (km) **4.7**Average
Distance to
Police Station
(km)

**1.2**Hospitals and Clinics per 1,000 Persons



## **LOGISTICS CAPACITY (LC)**

**RANK: 6 / 10 PARISHES ASSESSED** 

**SCORE: 0.511** 

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



## **Maritime Logistics**

1

5.1 Average Distance to Seaport (km) 66.4 Distance to External Medium or Large Seaport (km)

0.2 Port Density (ports per 10 km of coastline)



## Air Support

4.9

**SCORE: 0.828** 

SCORE: 0.538

**RANK: 2/10 PARISHES ASSESSED** 

**RANK: 8/10 PARISHES ASSESSED** 

**RANK: 4/10 PARISHES ASSESSED** 

69.9 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



## Transportation Capacity

1 SCORE: 0.147

0.1 1.5 Gas Stations per 1,000 Persons per sq km)

Road Density (km of roads



#### Warehouse Access

1

SCORE: 0.533

**RANK: 6/10 PARISHES ASSESSED** 

5.1 Average Distance to Warehouse

(km)

316.8 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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 4 / 10 PARISHES ASSESSED

**SCORE: 0.576** 



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

RANK: 9 / 10 PARISHES ASSESSED

**SCORE: 0.473** 

## **KEY FACTORS INFLUENCING RESILIENCE**

Saint Andrew'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:



## **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.



## **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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.



## **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.



#### Warehouse Access

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.



## **HAZARD-SPECIFIC RISK (HSR)**





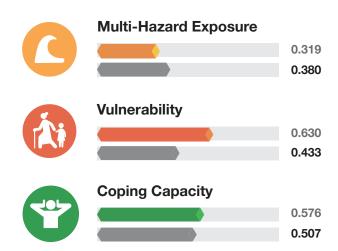
## **MULTI-HAZARD RISK (MHR)**

3 / 10 RANK AMONG PARISHES Score: 0.458

Saint Andrew'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.

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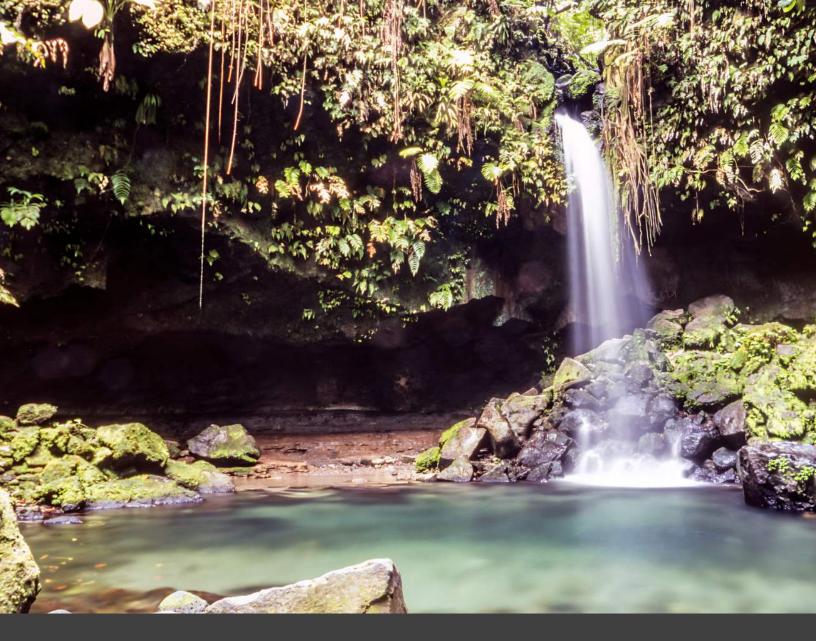
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**DOMINICA** 

## **SAINT DAVID**

## **NDPBA SUBNATIONAL PROFILE**



# DOMINICA SAINT DAVID

Area: 125.8 km2



## **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



## **MULTI-HAZARD RISK (MHR)**

- Very High

Score: 0.512 • Rank: 1/10



**Total Population (2011)** 

5,899



#### **RESILIENCE (R)**

- Very Low

Score: 0.344 • Rank: 10/10



Coastal Population Concentration

19.3%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Very Low

Score: 0.226 • Rank: 9/10



**Poverty Rate** 

40.4%



## **VULNERABILITY (V)**

- Very High

Score: 0.616 • Rank: 2/10



Households with Reduced Water Availability

60.7%



#### **COPING CAPACITY (CC)**

- Very Low

Score: 0.305 • Rank: 10/10



Coastline Exposure to Local or Global Threats

7.9%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 9 / 10 PARISHES ASSESSED** 

**SCORE: 0.226** 



MHE 0.226

Raw MHE 0.355

Relative MHE 0.098

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

<1%

**4** 39

Buildings Exposed: <1%

Critical Infrastructure Exposed: 2%



**Hurricane Winds** 

100%

**5,620** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**5,620** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

23%

**1,310** 

Buildings Exposed: 26%

Critical Infrastructure Exposed: 17%



**Extreme Heat** 

31%

**4** 1,750

Buildings Exposed: 34%

Critical Infrastructure Exposed: 19%



Sea Level Rise

<1%

**31** 

Buildings Exposed: <1%

Critical Infrastructure Exposed: 2%



Flash Flood

11%

**4** 612

Buildings Exposed: 11%

Critical Infrastructure Exposed: 49%



Tsunami

1%

**54** 

Buildings Exposed: 1%

Critical Infrastructure Exposed: 15%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 9 / 10 PARISHES ASSESSED** 

**SCORE: 0.226** 

## **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano 50%

**2**,800

Buildings Exposed: 48%

Critical Infrastructure Exposed: 49%



Wildfire

<1%

**2** 8

Buildings Exposed: <1%

Critical Infrastructure Exposed: 0%



## **VULNERABILITY (V)**

**RANK: 2 / 10 PARISHES ASSESSED** 

**SCORE: 0.616** 

Vulnerability in Saint David is primarily driven by Household Infrastructure Vulnerability and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



### **Economic Constraints**

0

SCORE: 0.908 RANK: 1/10 PARISHES ASSESSED

**63.6**Economic
Dependency
Ratio

**40.4%**Poverty Rate



## **Environmental Stress**

1 SCORE: 0.180 RANK: 9/10 PARISHES ASSESSED

19.3% Coastal Population

Concentration

7.9%
Coastline
Exposure
to Local or
Global Threats

26.0% Tree Cover Loss



## **Household Infrastructure Vulnerability**

1 SCORE: 1.000 RANK: 1/10 PARISHES ASSESSED

12.3% Housing Built Prior to 2003

Households with Reduced Water Availability

60.7%



## **Household Composition and Vulnerable Health**



SCORE: 0.646 RANK: 2/10 PARISHES ASSESSED

**6.2%**Prevalence of Disability (per 100 persons)

**0.0%**Institutionalized Population

**13.1%**Population
Age 65 and
Over

25.8% Population Under Age 15



#### **Population Pressures**



SCORE: 0.349 RANK: 5/10 PARISHES ASSESSED

**1.4%**Average Annual Population Change

46.9
Population
Density
(persons per
sq km)

16.4% Youth Bulge (population ages 15-24)



## **ISLAND CAPACITY (IC)**

**RANK: 10 / 10 PARISHES ASSESSED** 

**SCORE: 0.360** 

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



## **Environmental Capacity**

SCORE: 0.189 **RANK: 9/10 PARISHES ASSESSED** 

0.00% Croplands 47.0 Net Carbon

12.9% 0.0% Protected

Protected Terrestrial Area Coastlines



## **Emergency Service and Health Care Capacity**

1 SCORE: 0.434

RANK: 10/10 PARISHES ASSESSED

0.7 Average Distance to Shelter (km) 1.1 Average Distance to Hospital or Clinic (km)

11.7 Average Distance to Fire Station (km)

7.3 Average Distance to Police Station (km)

1.3 Hospitals and Clinics per 1,000 Persons



## **LOGISTICS CAPACITY (LC)**

0.0 Port Density

(ports per

10 km of

coastline)

**RANK: 10 / 10 PARISHES ASSESSED** 

**SCORE: 0.251** 

**RANK: 9/10 PARISHES ASSESSED** 

RANK: 10/10 PARISHES ASSESSED

Saint David 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: 0.033 RANK: 10/10 PARISHES ASSESSED** 

11.0 Average

Distance to Seaport (km) 83.8 Distance to External Medium or Large Seaport (km)

Air Support

87.1 8.1

Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



## **Transportation Capacity**

1 SCORE: 0.000

0.0 1.4

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



#### Warehouse Access

1

**SCORE: 0.757** 

SCORE: 0.212

**RANK: 3/10 PARISHES ASSESSED** 

4.9 Average

Distance to Warehouse (km)

302.9 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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 10 / 10 PARISHES ASSESSED

**SCORE: 0.305** 



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

RANK: 10 / 10 PARISHES ASSESSED

**SCORE: 0.344** 

## **KEY FACTORS INFLUENCING RESILIENCE**

Saint David'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:



## **Household Infrastructure 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, households experiencing access constraints to clean water and sanitation are challenged to maintain a standard of living that meets basic household needs, and face significant demands on daily routines that effectively limit their response and recovery capacity as well as the ability to maintain livelihoods. Increasing access to improved water and sanitation improves health outcomes and frees up resources to decrease further susceptibility to impacts.



## **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.



## **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.



## **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.102
\\-	Earthquake	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.682
	Extreme Heat	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.487
	Flash Flood	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.366
	Hurricane Winds	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.682
MÈ	Landslide	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.587
	Sea Level Rise	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.064
	Tsunami	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.259
<b>S</b>	Volcano	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.490
	Wildfire	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.034



## **MULTI-HAZARD RISK (MHR)**

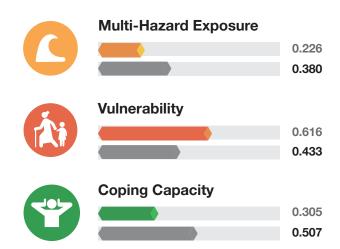
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RANK AMONG PARISHES Score: 0.512

Saint David'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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**DOMINICA** 

## **SAINT GEORGE**

## **NDPBA SUBNATIONAL PROFILE**



# DOMINICA SAINT GEORGE

Area: 56.2 km2



## **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



## **MULTI-HAZARD RISK (MHR)**

- Moderate

Score: 0.436 • Rank: 5/10



**Total Population (2011)** 

20,791



#### **RESILIENCE (R)**

- Very High

Score: 0.689 • Rank: 1/10



Coastal Population Concentration

32.0%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Very High

Score: 0.686 • Rank: 1/10



**Poverty Rate** 

13.7%



## **VULNERABILITY (V)**

- Very Low

Score: 0.332 • Rank: 9/10



Households with Reduced Water Availability

14.1%



#### **COPING CAPACITY (CC)**

- Very High

Score: 0.710 • Rank: 1/10



Coastline Exposure to Local or Global Threats

12.5%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 1 / 10 PARISHES ASSESSED** 

**SCORE: 0.686** 



MHE 0.686

Raw MHE 1.000

Relative MHE 0.372

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

3%

**4** 603

Buildings Exposed: 4%

Critical Infrastructure Exposed: 12%



**Hurricane Winds** 

100%

**21,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**21,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

21%

**4,510** 

Buildings Exposed: 22%

Critical Infrastructure Exposed: 11%



**Extreme Heat** 

0%

**2** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

2%

**483** 

Buildings Exposed: 3%

Critical Infrastructure Exposed: 12%



Flash Flood

16%

**3.540** 

Buildings Exposed: 25%

Critical Infrastructure Exposed: 52%



Tsunami

5%

**4** 1,080

Buildings Exposed: 9%

Critical Infrastructure Exposed: 20%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 1 / 10 PARISHES ASSESSED** 

**SCORE: 0.686** 

## **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

100%

**21,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

14%

**3,040** 

Buildings Exposed: 16%

Critical Infrastructure Exposed: 15%



## **VULNERABILITY (V)**

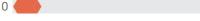
**RANK: 9 / 10 PARISHES ASSESSED** 

**SCORE: 0.332** 

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



## **Economic Constraints**



1 SCORE: 0.113

**RANK: 9/10 PARISHES ASSESSED** 

**49.0**Economic
Dependency

13.7% Poverty Rate



### **Environmental Stress**



**32.0%** 

Coastal Population Concentration 12.5%
Coastline
Exposure
to Local or
Global Threats

**8.5%**Tree Cover Loss



## **Household Infrastructure Vulnerability**

1 SCORE: 0.283 RANK: 7/10 PARISHES ASSESSED

11.0% Housing Built Prior to 2003

Households with Reduced Water Availability

14.1%



## Household Composition and Vulnerable Health



SCORE: 0.464 RANK: 6/10 PARISHES ASSESSED

**4.4%**Prevalence of Disability (per

100 persons)

1.5%
Institutionalized Population

10.2% Population Age 65 and **22.7%**Population
Under Age 15



## **Population Pressures**



SCORE: 0.650 RANK: 2/10 PARISHES ASSESSED

**0.5%**Average Annual Population

Change

370.0
Population
Density
(persons per
sq km)

17.6% Youth Bulge (population ages 15-24)



## **ISLAND CAPACITY (IC)**

**RANK: 3 / 10 PARISHES ASSESSED** 

**SCORE: 0.630** 

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



## **Environmental Capacity**

0 1 SCORE: 0.326

RANK: 5/10 PARISHES ASSESSED

0.00% Croplands -3.1 Net Carbon 21.3% 0.0% Protected Terrestrial Area Coastlines

## **Emergency Service and Health Care Capacity**

0

1 SCORE: 0.761

**RANK: 2/10 PARISHES ASSESSED** 

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**0.4**Average
Distance to
Shelter (km)

**0.7**Average
Distance to
Hospital or
Clinic (km)

**2.6**Average
Distance to
Fire Station
(km)

2.6 Average Distance to Police Station (km) **0.7**Hospitals and Clinics per 1,000 Persons

PDC Global



## **LOGISTICS CAPACITY (LC)**

**RANK: 1 / 10 PARISHES ASSESSED** 

**SCORE: 0.789** 

Saint George 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**

SCORE: 0.754 **RANK: 1/10 PARISHES ASSESSED** 

2.0 Average Distance to Seaport (km)

79.0 Distance to External Medium or Large Seaport (km)

12.0 Port Density (ports per 10 km of coastline)



## Air Support

**SCORE: 0.651** 

**RANK: 4/10 PARISHES ASSESSED** 

82.7 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)

2.2



## Transportation Capacity

3.4

SCORE: 0.853 **RANK: 1/10 PARISHES ASSESSED** 

0.4 Gas Stations per 1,000 Persons

Road Density (km of roads per sq km)



#### Warehouse Access

**SCORE: 0.899** 

**RANK: 1/10 PARISHES ASSESSED** 

2.6

Average Distance to Warehouse (km)

302.0 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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 1 / 10 PARISHES ASSESSED

**SCORE: 0.710** 



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

RANK: 1 / 10 PARISHES ASSESSED

**SCORE: 0.689** 

## **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:



## **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.



## **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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: 6 / 10 PARISHES ASSESSED SCORE: 0.435
-W-	Earthquake	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.558
	Extreme Heat	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000
	Flash Flood	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.459
	Hurricane Winds	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.558
MÈ	Landslide	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.464
	Sea Level Rise	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.434
	Tsunami	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.427
<b>X</b>	Volcano	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.558
	Wildfire	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.450



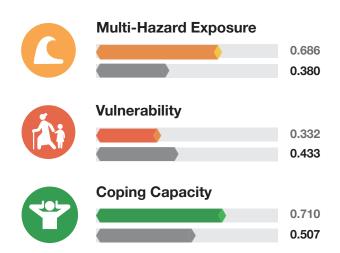
## **MULTI-HAZARD RISK (MHR)**

5 / 10 RANK AMONG PARISHES Score: 0.436

Saint George's score and ranking are due to Very High 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:







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DOMINICA
SAINT JOHN

**NDPBA SUBNATIONAL PROFILE** 



# DOMINICA SAINT JOHN

Area: 59.1 km2



#### **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- Low

Score: 0.425 • Rank: 8/10



**Total Population (2011)** 

6,422



#### **RESILIENCE (R)**

- High

Score: 0.621 • Rank: 3/10



Coastal Population Concentration

80.7%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- High

Score: 0.518 • Rank: 3/10



**Poverty Rate** 

10.2%



#### **VULNERABILITY (V)**

- Low

Score: 0.375 • Rank: 7/10



Households with Reduced Water Availability

21.2%



#### **COPING CAPACITY (CC)**

- High

Score: 0.617 • Rank: 3/10



**Coastline Exposure to Local or Global Threats** 

61.3%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 3 / 10 PARISHES ASSESSED** 

**SCORE: 0.518** 



MHE 0.518

Raw MHE 0.402

Relative MHE 0.635

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

7%

**475** 

Buildings Exposed: 10%

Critical Infrastructure Exposed: 15%



**Hurricane Winds** 

100%

**2** 7,040

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**2** 7,040

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

5%

**331** 

Buildings Exposed: 3%

Critical Infrastructure Exposed: 11%



**Extreme Heat** 

43%

**3.040** 

Buildings Exposed: 36%

Critical Infrastructure Exposed: 22%



Sea Level Rise

5%

**348** 

Buildings Exposed: 7%

Critical Infrastructure Exposed: 8%



Flash Flood

38%

**2.650** 

Buildings Exposed: 56%

Critical Infrastructure Exposed: 69%



Tsunami

19%

**1,350** 

Buildings Exposed: 33%

Critical Infrastructure Exposed: 40%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 3 / 10 PARISHES ASSESSED** 

**SCORE: 0.518** 

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

96%

**6,740** 

Buildings Exposed: 97%

Critical Infrastructure Exposed: 99%



Wildfire

**5%** 

**334** 

Buildings Exposed: 2%

Critical Infrastructure Exposed: <1%



## VULNERABILITY (V)

**RANK: 7 / 10 PARISHES ASSESSED** 

**SCORE: 0.375** 

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



#### **Economic Constraints**

SCORE: 0.000 **RANK: 10/10 PARISHES ASSESSED** 

46.7 Economic Dependency

10.2% Poverty Rate



#### **Environmental Stress**



80.7% Coastal Population

61.3% Coastline Exposure Concentration to Local or Global Threats 65.0% Tree Cover Loss



#### **Household Infrastructure Vulnerability**

1 SCORE: 0.118 **RANK: 9/10 PARISHES ASSESSED** 

9.5% Housing Built Prior to 2003

21.2% Households with Reduced Water Availability



#### Household Composition and Vulnerable Health



SCORE: 0.196 **RANK: 10/10 PARISHES ASSESSED** 

3.8% Prevalence of Disability (per

100 persons)

0.5% Institutionalized Population

9.7% Population Age 65 and 22.1% Population Under Age 15



#### **Population Pressures**



**SCORE: 0.736 RANK: 1/10 PARISHES ASSESSED** 

2.3% Average Annual

108.7 Population Population Density Change (persons per sq km)

18.6% Youth Bulge (population ages 15-24)



# **ISLAND CAPACITY (IC)**

**RANK: 4 / 10 PARISHES ASSESSED** 

**SCORE: 0.576** 

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



#### **Environmental Capacity**

**SCORE: 0.399 RANK: 3/10 PARISHES ASSESSED** 

0.04% Croplands 93.2 Net Carbon 20.1% 44.7% Protected Terrestrial Area

Protected Coastlines



#### **Emergency Service and Health Care Capacity**

1 SCORE: 0.651 **RANK: 4/10 PARISHES ASSESSED** 

0.7 Average Distance to Shelter (km) 1.1 Average Distance to Hospital or Clinic (km)

2.5 Average Distance to Fire Station (km)

2.5 Average Distance to Police Station (km)

0.7 Hospitals and Clinics per 1,000 Persons

**PDC** Global



## **LOGISTICS CAPACITY (LC)**

**RANK: 2 / 10 PARISHES ASSESSED** 

**SCORE: 0.659** 

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



#### **Maritime Logistics**

0

SCORE: 0.746

**RANK: 2/10 PARISHES ASSESSED** 

1.1
Average
Distance to
Seaport (km)

**66.3**Distance to External Medium or Large Seaport (km)

2.9 Port Density (ports per 10 km of coastline)



#### Air Support

69.8 2.7

SCORE: 0.951

**RANK: 1/10 PARISHES ASSESSED** 

69.8
Distance to
External C130
Airport (km)

Average Distance to Airport or Heliport (km)



#### **Transportation Capacity**

0 1

2.2

1 SCORE: 0.450

**RANK: 5/10 PARISHES ASSESSED** 

O.3
Gas Stations per 1,000
Persons

Road Density (km of roads per sq km)



#### Warehouse Access

0 \

SCORE: 0.489

**RANK: 8/10 PARISHES ASSESSED** 

**2.8**Average
Distance to
Warehouse

(km)

327.5
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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 3 / 10 PARISHES ASSESSED

**SCORE: 0.617** 



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

RANK: 3 / 10 PARISHES ASSESSED

**SCORE: 0.621** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

Saint John's score and ranking are due to Low Vulnerability combined with 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.



#### **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.



#### Warehouse Access

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.



# **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.499
-Mr-	Earthquake	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.502
	Extreme Heat	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.397
	Flash Flood	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.537
	Hurricane Winds	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.502
MÈ	Landslide	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.089
	Sea Level Rise	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.459
	Tsunami	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.614
<del>S</del>	Volcano	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.505
	Wildfire	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.164



## **MULTI-HAZARD RISK (MHR)**

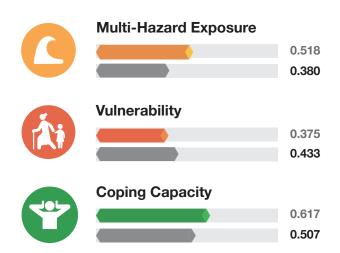
8/10

RANK AMONG PARISHES Score: 0.425

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

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







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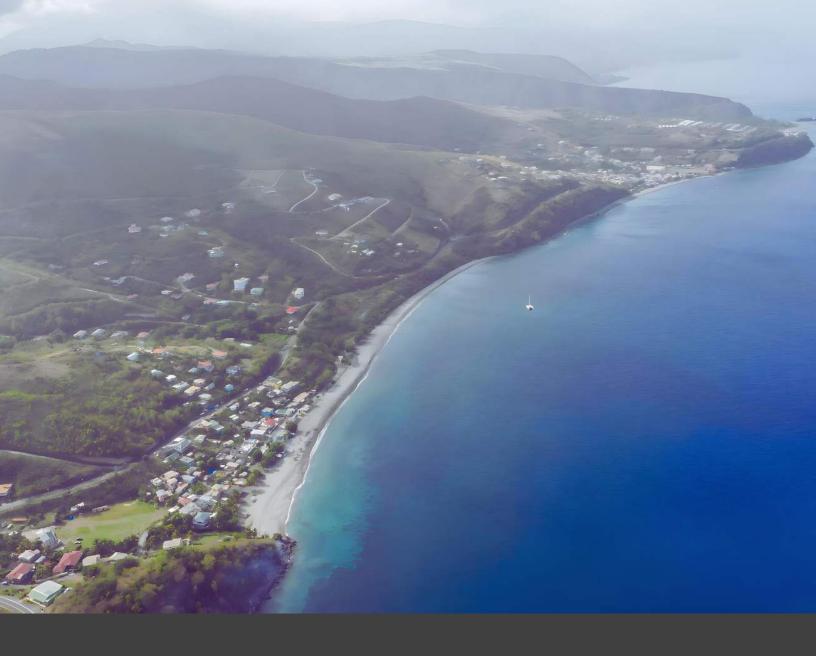
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SAINT JOSEPH

NDPBA SUBNATIONAL PROFILE



# DOMINICA SAINT JOSEPH

Area: 118.4 km2



#### **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- Low

Score: 0.428 • Rank: 7/10



**Total Population (2011)** 

5,434



**RESILIENCE (R)** 

- Low

Score: 0.474 • Rank: 8/10



Coastal Population Concentration

32.1%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Low

Score: 0.231 • Rank: 8/10



**Poverty Rate** 

47.2%



#### **VULNERABILITY (V)**

- Moderate

Score: 0.412 • Rank: 6/10



Households with Reduced Water Availability

50.7%



#### **COPING CAPACITY (CC)**

- LOW

Score: 0.359 • Rank: 8/10



**Coastline Exposure to Local or Global Threats** 

21.6%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 8 / 10 PARISHES ASSESSED** 

**SCORE: 0.231** 



MHE 0.231

Raw MHE 0.283

Relative MHE 0.179

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

3%

**\$** 150

Buildings Exposed: 5%

Critical Infrastructure Exposed: 17%



**Hurricane Winds** 

100%

**5,430** 

Buildings Exposed: **100%** 

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**5,430** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

21%

**1,140** 

Buildings Exposed: 19%

Critical Infrastructure Exposed: 43%



**Extreme Heat** 

11%

**593** 

Buildings Exposed: 24%

Critical Infrastructure Exposed: 12%



Sea Level Rise

2%

**4** 133

Buildings Exposed: 4%

Critical Infrastructure Exposed: 17%



Flash Flood

**12%** 

**4** 650

Buildings Exposed: 18%

Critical Infrastructure Exposed: 40%



Tsunami

2%

**108** 

Buildings Exposed: 6%

Critical Infrastructure Exposed: 16%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 8 / 10 PARISHES ASSESSED** 

**SCORE: 0.231** 

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

40%

**2**,160

Buildings Exposed: 45%

Critical Infrastructure Exposed: 40%



Wildfire

18%

**1,000** 

Buildings Exposed: 18%

Critical Infrastructure Exposed: **11%** 



## **VULNERABILITY (V)**

**RANK: 6 / 10 PARISHES ASSESSED** 

**SCORE: 0.412** 

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



#### **Economic Constraints**

0

SCORE: 0.636

**RANK: 4/10 PARISHES ASSESSED** 

**51.3**Economic Dependency

Ratio

**47.2%**Poverty Rate



#### **Environmental Stress**

0 SCORE: 0.362 RANK: 6/10 PARISHES ASSESSED

**32.1%** Coastal

Coastal
Population
Concentration

21.6%
Coastline
Exposure
to Local or
Global Threats

41.0% Tree Cover Loss



#### **Household Infrastructure Vulnerability**

0 TANK: 6/10 PARISHES ASSESSED

9.3% Housing Built Prior to 2003

Households with Reduced Water Availability

50.7%



#### Household Composition and Vulnerable Health



SCORE: 0.467 RANK: 5/10 PARISHES ASSESSED

**6.3%**Prevalence of Disability (per 100 persons)

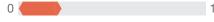
**0.2%**Institutionalized Population

**13.6%**Population
Age 65 and
Over

20.4% Population Under Age 15



#### **Population Pressures**



SCORE: 0.201 RANK: 9/10 PARISHES ASSESSED

0.7%

Average Annual Population Change 45.9
Population
Density
(persons per
sq km)

16.0% Youth Bulge (population ages 15-24)



# **ISLAND CAPACITY (IC)**

**RANK: 8 / 10 PARISHES ASSESSED** 

**SCORE: 0.430** 

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



#### **Environmental Capacity**

0

SCORE: 0.191 RANK: 8/10 PARISHES ASSESSED

0.00% Croplands 109.0 Net Carbon 25.7% Protected Terrestrial Area

0.0% Protected Coastlines



#### **Emergency Service and Health Care Capacity**

1.4 1.4 4.7

1 SCORE: 0.532

**RANK: 7/10 PARISHES ASSESSED** 

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**1.4**Average
Distance to
Shelter (km)

Average Distance to Hospital or Clinic (km) **4.7**Average
Distance to
Fire Station
(km)

Average
Distance to
Police Station
(km)

**1.3**Hospitals and Clinics per 1,000 Persons

PDC Global



# **LOGISTICS CAPACITY (LC)**

**RANK: 9 / 10 PARISHES ASSESSED** 

**SCORE: 0.289** 

Saint Joseph exhibits weaker Logistics Capacity in the areas of Air Support and Warehouse Access.

The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



#### **Maritime Logistics**

0 1

SCORE: 0.313

**RANK: 8/10 PARISHES ASSESSED** 

4.3

Average Distance to Seaport (km) **82.2**Distance to External Medium or Large Seaport (km)

O.9 Port Density (ports per 10 km of coastline)



#### Air Support



1 SCORE: 0.095

**RANK: 10/10 PARISHES ASSESSED** 

85.7 Distance to External C130 Airport (km) 10.8 Average Distance to Airport or Heliport (km)



### **Transportation Capacity**

1.6

0

1 SCORE: 0.540

RANK: 4/10 PARISHES ASSESSED

**0.6**Gas Stations per 1,000
Persons

Road Density (km of roads per sq km)



#### Warehouse Access

0 1

SCORE: 0.207

**RANK: 10/10 PARISHES ASSESSED** 

11.9
Average
Distance to
Warehouse

(km)

314.3
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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 8 / 10 PARISHES ASSESSED

**SCORE: 0.359** 



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

RANK: 8 / 10 PARISHES ASSESSED

**SCORE: 0.474** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

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

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



#### **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.



#### **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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.



#### **Warehouse Access**

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.



# **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.388
-W-	Earthquake	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.589
	Extreme Heat	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.299
	Flash Flood	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.342
	Hurricane Winds	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.589
MÈ	Landslide	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.507
	Sea Level Rise	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.408
Cá.	Tsunami	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.309
\$	Volcano	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.392
	Wildfire	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.495



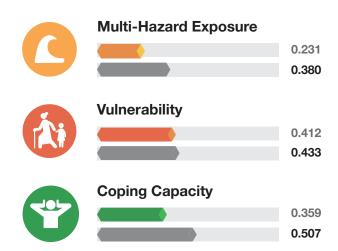
## **MULTI-HAZARD RISK (MHR)**

7 / 10 RANK AMONG PARISHES Score: 0.428

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

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







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# DOMINICA SAINT LUKE

## **NDPBA SUBNATIONAL PROFILE**



# DOMINICA SAINT LUKE

Area: 10.8 km2



#### **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- Very Low

Score: 0.356 • Rank: 9/10



**Total Population (2011)** 

1,565



#### **RESILIENCE (R)**

- Very High

Score: 0.632 • Rank: 2/10



Coastal Population Concentration

1.0%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Moderate

Score: 0.333 • Rank: 6/10



**Poverty Rate** 

17.5%



#### **VULNERABILITY (V)**

- Very Low

Score: 0.285 • Rank: 10/10



Households with Reduced Water Availability

20.8%



#### **COPING CAPACITY (CC)**

- Moderate

Score: 0.549 • Rank: 5/10



Coastline Exposure to Local or Global Threats

0.0%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 6 / 10 PARISHES ASSESSED** 

**SCORE: 0.333** 



MHE 0.333

Raw MHE 0.024

Relative MHE 0.643

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

8%

**\$ 128** 

Buildings Exposed: 22%

Critical Infrastructure Exposed: 30%



**Hurricane Winds** 

100%

**1,620** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**1,620** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

29%

**462** 

Buildings Exposed: 39%

Critical Infrastructure Exposed: 40%



**Extreme Heat** 

3%

**\$** 52

Buildings Exposed: 1%

Critical Infrastructure Exposed: 3%



Sea Level Rise

**7%** 

**107** 

Buildings Exposed: **18%** 

Critical Infrastructure Exposed: 30%



Flash Flood

**52%** 

**843** 

Buildings Exposed: 67%

Critical Infrastructure Exposed: 63%



Tsunam

3%

**47** 

Buildings Exposed: 14%

Critical Infrastructure Exposed: 3%

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





# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 6 / 10 PARISHES ASSESSED** 

**SCORE: 0.333** 

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

100%

**\$**1,620

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

0%

**&** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: **0%** 



## **VULNERABILITY (V)**

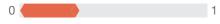
**RANK: 10 / 10 PARISHES ASSESSED** 

**SCORE: 0.285** 

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



#### **Economic Constraints**



SCORE: 0.288

**RANK: 8/10 PARISHES ASSESSED** 

**53.1**Economic Dependency Ratio

17.5% Poverty Rate



#### **Environmental Stress**



1.0%
Coastal
Population
Concentration

0.0%
Coastline
Exposure
to Local or
Global Threats

4.3% Tree Cover Loss



#### **Household Infrastructure Vulnerability**

0 SCORE: 0.116 RANK: 10/10 PARISHES ASSESSED

9.5% Housing Built Prior to 2003 20.8% Households with Reduced Water Availability



#### Household Composition and Vulnerable Health



SCORE: 0.398 RANK: 9/10 PARISHES ASSESSED

**5.2%**Prevalence of Disability (per 100 persons)

**0.2%**Institutionalized Population

**10.2%**Population
Age 65 and
Over

**24.5%**Population
Under Age 15



#### **Population Pressures**



SCORE: 0.289 RANK: 6/10 PARISHES ASSESSED

**0.0%**Average Annual Population Change

144.9
Population
Density
(persons per
sq km)

16.9% Youth Bulge (population ages 15-24)



# **ISLAND CAPACITY (IC)**

**RANK: 5 / 10 PARISHES ASSESSED** 

**SCORE: 0.543** 

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



#### **Environmental Capacity**

0 SCORE: 0.168 RANK: 10/10 PARISHES ASSESSED

0.00%

Croplands

**-1.5** Net Carbon **0.0%**Protected
Terrestrial Area

0.0% Protected Coastlines



#### **Emergency Service and Health Care Capacity**

0 \

0.5

1 SCORE: 0.704

**RANK: 3/10 PARISHES ASSESSED** 

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**0.5**Average
Distance to
Shelter (km)

Average Distance to Hospital or Clinic (km) 5.0 Average Distance to Fire Station (km)

**3.7**Average
Distance to
Police Station
(km)

**0.6**Hospitals and Clinics per 1,000 Persons

PDC Global



## **LOGISTICS CAPACITY (LC)**

**RANK: 4 / 10 PARISHES ASSESSED** 

**SCORE: 0.555** 

Saint Luke 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**

0 1

SCORE: 0.529 R

**RANK: 5/10 PARISHES ASSESSED** 

1.3
Average
Distance to
Seaport (km)

77.2
Distance
to External
Medium or
Large Seaport
(km)

1.9 Port Density (ports per 10 km of coastline)



#### Air Support

0

SCORE: 0.636

**RANK: 6/10 PARISHES ASSESSED** 

81.1 Distance to External C130 Airport (km) **3.2**Average
Distance to
Airport or
Heliport (km)



#### **Transportation Capacity**

0.0 2.5

1 SCORE: 0.281

**RANK: 6/10 PARISHES ASSESSED** 

O.O
Gas Stations
per 1,000
Persons

Road Density (km of roads per sq km)



#### Warehouse Access

0

SCORE: 0.773

**RANK: 2/10 PARISHES ASSESSED** 

**5.2**Average
Distance to
Warehouse

(km)

301.1
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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 5 / 10 PARISHES ASSESSED

**SCORE: 0.549** 



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

RANK: 2 / 10 PARISHES ASSESSED

**SCORE: 0.632** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

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

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



#### **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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.



#### **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.



#### **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.



# **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.448
-Mr	Earthquake	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.430
	Extreme Heat	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.080
	Flash Flood	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.442
	Hurricane Winds	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.430
MÈ	Landslide	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.405
	Sea Level Rise	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.451
CG.	Tsunami	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.216
\$\frac{1}{2}	Volcano	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.446
	Wildfire	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000



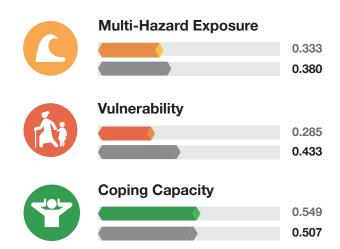
## **MULTI-HAZARD RISK (MHR)**

9 / 10 RANK AMONG PARISHES Score: 0.356

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

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







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SAINT MARK

**NDPBA SUBNATIONAL PROFILE** 



# DOMINICA SAINT MARK

Area: 13.5 km2



#### RISK AND VULNERABILITY

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- Moderate

Score: 0.435 • Rank: 6/10



**Total Population (2011)** 

1,767



#### **RESILIENCE (R)**

- High

Score: 0.613 • Rank: 4/10



Coastal Population Concentration

92.2%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Very High

Score: 0.532 • Rank: 2/10



**Poverty Rate** 

27.3%



#### **VULNERABILITY (V)**

- Moderate

Score: 0.424 • Rank: 5/10



Households with Reduced Water Availability

32.6%



#### **COPING CAPACITY (CC)**

- Very High

Score: 0.650 • Rank: 2/10



Coastline Exposure to Local or Global Threats

57.1%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 2 / 10 PARISHES ASSESSED** 

**SCORE: 0.532** 



MHE 0.532

Raw MHE 0.064

Relative MHE 1.000

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

9%

**4** 153

Buildings Exposed: 16%

Critical Infrastructure Exposed: 28%



**Hurricane Winds** 

100%

**1,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**1,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

35%

**\$** 591

Buildings Exposed: 40%

Critical Infrastructure Exposed: 39%



**Extreme Heat** 

100%

**1,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

8%

**137** 

Buildings Exposed: 14%

Critical Infrastructure Exposed: 28%



Flash Flood

25%

**426** 

Buildings Exposed: 30%

Critical Infrastructure Exposed: 43%



Tsunami

4%

**2** 74

Buildings Exposed: 10%

Critical Infrastructure Exposed: 22%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 2 / 10 PARISHES ASSESSED** 

SCORE: 0.532

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

100%

**\$1,700** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

0%

**&** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: **0%** 



## **VULNERABILITY (V)**

**RANK: 5 / 10 PARISHES ASSESSED** 

**SCORE: 0.424** 

Vulnerability in Saint Mark is primarily driven by Environmental Stress and Household Infrastructure Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



#### **Economic Constraints**



SCORE: 0.392 RANK: 5

**RANK: 5/10 PARISHES ASSESSED** 

**52.2**Economic
Dependency
Ratio

27.3% Poverty Rate



#### **Environmental Stress**



SCORE: 0.543 RANK: 3/10 PARISHES ASSESSED

92.2%
Coastal
Population
Concentration

**57.1%**Coastline
Exposure
to Local or
Global Threats

**8.6%**Tree Cover Loss



#### **Household Infrastructure Vulnerability**

1 \$

1 SCORE: 0.532 RANK: 3/10 PARISHES ASSESSED

11.3% Housing Built Prior to 2003 **32.6%**Households with Reduced Water Availability



#### **Household Composition and Vulnerable Health**



SCORE: 0.411 RANK: 8/10 PARISHES ASSESSED

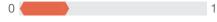
**5.2%**Prevalence of Disability (per 100 persons)

**0.3%**Institutionalized Population

14.3% Population Age 65 and Over 20.0% Population Under Age 15



#### **Population Pressures**



SCORE: 0.240 RANK: 8/10 PARISHES ASSESSED

**0.8%**Average Annual Population Change

130.9
Population
Density
(persons per
sq km)

15.2% Youth Bulge (population ages 15-24)



# **ISLAND CAPACITY (IC)**

**RANK: 1 / 10 PARISHES ASSESSED** 

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**SCORE: 0.661** 

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



#### **Environmental Capacity**

1 SCORE: 0.425 **RANK: 2/10 PARISHES ASSESSED** 

0.00%

-0.9 Croplands Net Carbon

1.0% 55.5% Protected Protected Terrestrial Area Coastlines



#### **Emergency Service and Health Care Capacity**

1 SCORE: 0.763 **RANK: 1/10 PARISHES ASSESSED** 

0.4

Average Distance to Shelter (km) Average Distance to Hospital or Clinic (km)

0.6

9.1 Average Distance to Fire Station (km)

1.2 Average Distance to Police Station (km)

1.2 Hospitals and Clinics per 1,000 Persons

**PDC** Global



## **LOGISTICS CAPACITY (LC)**

**RANK: 3 / 10 PARISHES ASSESSED** 

**SCORE: 0.638** 

**RANK: 3/10 PARISHES ASSESSED** 

**RANK: 5/10 PARISHES ASSESSED** 

**RANK: 2/10 PARISHES ASSESSED** 

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

**SCORE: 0.567** 

**SCORE: 0.639** 



#### **Maritime Logistics**

1.3 Average Distance to Seaport (km)

73.5 Distance to External Medium or Large Seaport (km)

1.0 Port Density (ports per 10 km of coastline)



#### Air Support

77.3 4.9

Distance to External C130 Airport (km)

0.6

Average Distance to Airport or Heliport (km)



#### Transportation Capacity

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



#### Warehouse Access

1

SCORE: 0.614

1 SCORE: 0.733

**RANK: 5/10 PARISHES ASSESSED** 

9.3 Average Distance to Warehouse

(km)

297.0 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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 2 / 10 PARISHES ASSESSED

**SCORE: 0.650** 



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

RANK: 4 / 10 PARISHES ASSESSED

**SCORE: 0.613** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

Saint Mark's score and ranking are due to Moderate 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.



#### **Household Infrastructure 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, households experiencing access constraints to clean water and sanitation are challenged to maintain a standard of living that meets basic household needs, and face significant demands on daily routines that effectively limit their response and recovery capacity as well as the ability to maintain livelihoods. Increasing access to improved water and sanitation improves health outcomes and frees up resources to decrease further susceptibility to impacts.



### **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.



#### Warehouse Access

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.



# **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.444
-W/\-	Earthquake	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.446
	Extreme Heat	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.505
	Flash Flood	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.283
	Hurricane Winds	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.446
MÈ	Landslide	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.435
	Sea Level Rise	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.459
Ca Ca	Tsunami	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.285
\$	Volcano	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.461
	Wildfire	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000



## **MULTI-HAZARD RISK (MHR)**

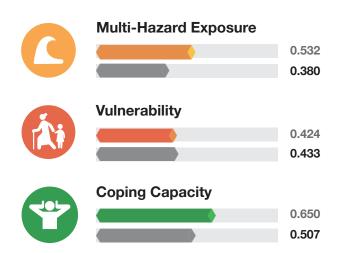
6/10

RANK AMONG PARISHES Score: 0.435

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

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







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SAINT PATRICK

**NDPBA SUBNATIONAL PROFILE** 



# DOMINICA SAINT PATRICK

Area: 86.7 km2



#### **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- Very High

Score: 0.499 • Rank: 2/10



**Total Population (2011)** 

7,361



#### **RESILIENCE (R)**

- Low

Score: 0.486 • Rank: 7/10



Coastal Population Concentration

11.1%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- High

Score: 0.468 • Rank: 4/10



**Poverty Rate** 

42.7%



#### **VULNERABILITY (V)**

- High

Score: 0.481 • Rank: 3/10



Households with Reduced Water Availability

30.0%



#### **COPING CAPACITY (CC)**

- LOW

Score: 0.453 • Rank: 7/10



Coastline Exposure to Local or Global Threats

40.5%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 4 / 10 PARISHES ASSESSED** 

**SCORE: 0.468** 



MHE 0.468

Raw MHE 0.453

Relative MHE 0.483

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

<1%

**4** 37

Buildings Exposed: <1%

Critical Infrastructure Exposed: 3%



**Hurricane Winds** 

100%

**2** 7,000

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**2** 7,000

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

21%

**1,470** 

Buildings Exposed: 20%

Critical Infrastructure Exposed: 35%



**Extreme Heat** 

**59%** 

**4.140** 

Buildings Exposed: 63%

Critical Infrastructure Exposed: 69%



Sea Level Rise

<1%

**27** 

Buildings Exposed: <1%

Critical Infrastructure Exposed: 2%



Flash Flood

14%

**974** 

Buildings Exposed: 22%

Critical Infrastructure Exposed: 21%



Tsunami

<1%

**2** 9

Buildings Exposed: <1%

Critical Infrastructure Exposed: <1%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 4 / 10 PARISHES ASSESSED** 

**SCORE: 0.468** 

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

100%

**2** 7,000

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

0%

**&** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: **0%** 



## VULNERABILITY (V)

**RANK: 3 / 10 PARISHES ASSESSED** 

**SCORE: 0.481** 

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



#### **Economic Constraints**

SCORE: 0.802 **RANK: 3/10 PARISHES ASSESSED** 

59.0 Economic

42.7% Poverty Rate

Dependency



#### **Environmental Stress**

SCORE: 0.234 **RANK: 8/10 PARISHES ASSESSED** 

11.1% Coastal Population

Concentration

40.5% Coastline Exposure to Local or Global Threats

19.0% Tree Cover Loss



#### **Household Infrastructure Vulnerability**

30.0%

1 SCORE: 0.420 **RANK: 4/10 PARISHES ASSESSED** 

10.8% Housing Built Prior to 2003

Households with Reduced Water Availability



#### Household Composition and Vulnerable Health



SCORE: 0.519 **RANK: 3/10 PARISHES ASSESSED** 

5.2% Prevalence of Disability (per 100 persons)

0.2% Institutionalized Population

13.8% Population Age 65 and 23.3% Population Under Age 15



#### **Population Pressures**



84.9

**SCORE: 0.430 RANK: 4/10 PARISHES ASSESSED** 

1.4% Average Annual Population

Change

Population Density (persons per sq km)

16.8% Youth Bulge (population ages 15-24)



## **ISLAND CAPACITY (IC)**

**RANK: 7 / 10 PARISHES ASSESSED** 

**RANK: 4/10 PARISHES ASSESSED** 

**SCORE: 0.463** 

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



#### **Environmental Capacity**

SCORE: 0.393

0.00% Croplands 15.9 Net Carbon 34.2% 0.0% Protected Terrestrial Area

Protected Coastlines



#### **Emergency Service and Health Care Capacity**

1 SCORE: 0.493 **RANK: 8/10 PARISHES ASSESSED** 

0.6 Average Distance to Shelter (km)

Average Distance to Hospital or Clinic (km)

0.7

12.1 Average Distance to Fire Station (km)

9.0 Average Distance to Police Station (km)

1.3 Hospitals and Clinics per 1,000 Persons



## **LOGISTICS CAPACITY (LC)**

**RANK: 7 / 10 PARISHES ASSESSED** 

**SCORE: 0.442** 

**RANK: 9/10 PARISHES ASSESSED** 

Saint Patrick 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**

9.0 Average Distance to Seaport (km)

73.4 Distance to External Medium or Large Seaport (km)

0.0 Port Density (ports per 10 km of coastline)



#### Air Support

1.8

**SCORE: 0.813** 

SCORE: 0.281

**RANK: 3/10 PARISHES ASSESSED** 

**RANK: 7/10 PARISHES ASSESSED** 

77.1 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)



#### Transportation Capacity

0.1 1.5

Gas Stations per 1,000 Persons

Road Density (km of roads per sq km)



#### Warehouse Access

1 SCORE: 0.518

1 SCORE: 0.158

**RANK: 7/10 PARISHES ASSESSED** 

11.5 Average Distance to Warehouse

(km)

295.6 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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 7 / 10 PARISHES ASSESSED

**SCORE: 0.453** 



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

RANK: 7 / 10 PARISHES ASSESSED

**SCORE: 0.486** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

Saint Patrick'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:



#### **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.



#### **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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.



### **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.



# **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.073
-M/-	Earthquake	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.603
	Extreme Heat	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.622
	Flash Flood	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.314
	Hurricane Winds	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.603
MÈ	Landslide	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.531
	Sea Level Rise	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.000
(Ca	Tsunami •	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.000
\$	Volcano	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.612
	Wildfire	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000



## **MULTI-HAZARD RISK (MHR)**

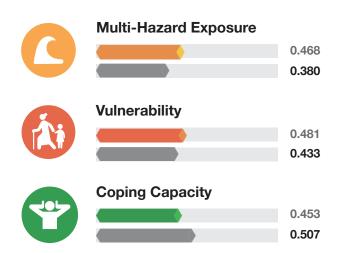
2/10

RANK AMONG PARISHES Score: 0.499

Saint Patrick's score and ranking are due to High 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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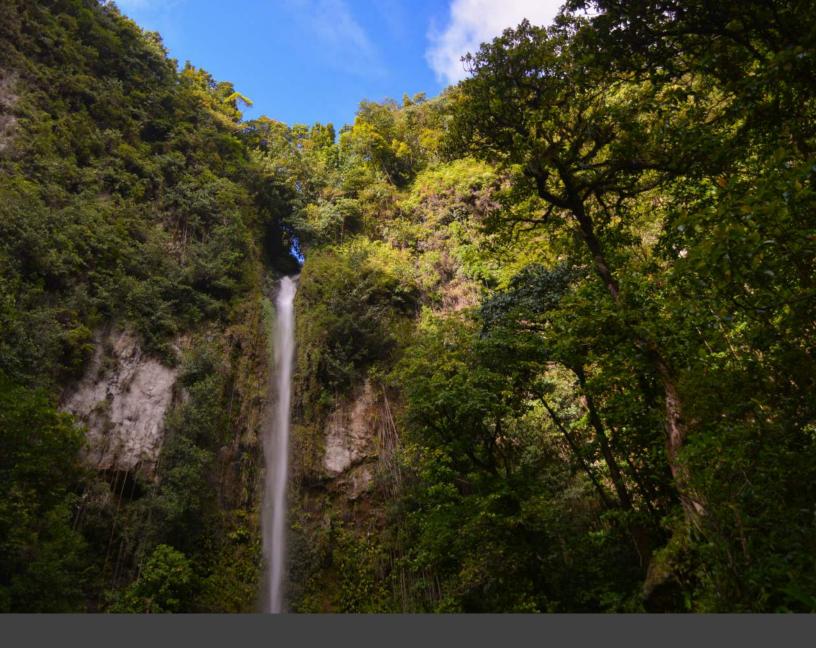
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DOMINICA

SAINT PAUL

**NDPBA SUBNATIONAL PROFILE** 



# DOMINICA SAINT PAUL

Area: 66.4 km2



#### **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



#### **MULTI-HAZARD RISK (MHR)**

- High

Score: 0.453 • Rank: 4/10



**Total Population (2011)** 

9,531



#### **RESILIENCE (R)**

- Moderate

Score: 0.531 • Rank: 5/10



Coastal Population Concentration

49.8%



#### **MULTI-HAZARD EXPOSURE (MHE)**

- Moderate

Score: 0.420 • Rank: 5/10



**Poverty Rate** 

32.6%



#### **VULNERABILITY (V)**

- High

Score: 0.436 • Rank: 4/10



Households with Reduced Water Availability

26.5%



#### **COPING CAPACITY (CC)**

- Moderate

Score: 0.497 • Rank: 6/10



Coastline Exposure to Local or Global Threats

46.4%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 5 / 10 PARISHES ASSESSED** 

**SCORE: 0.420** 



MHE 0.420

Raw MHE 0.459

Relative MHE 0.381

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

4%

**405** 

Buildings Exposed: 5%

Critical Infrastructure Exposed: 28%



**Hurricane Winds** 

100%

**10,800** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**1**0,800

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

16%

**1,700** 

Buildings Exposed: 17%

Critical Infrastructure Exposed: 4%



**Extreme Heat** 

0%

**2** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

3%

**350** 

Buildings Exposed: 4%

Critical Infrastructure Exposed: 28%



Flash Flood

10%

**1,130** 

Buildings Exposed: 14%

Critical Infrastructure Exposed: 21%



Tsunam

4%

**477** 

Buildings Exposed: 5%

Critical Infrastructure Exposed: 14%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 5 / 10 PARISHES ASSESSED** 

**SCORE: 0.420** 

#### **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

100%

**\$ 10,800** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

35%

**3,740** 

Buildings Exposed: 30%

Critical Infrastructure Exposed: 26%



## **VULNERABILITY (V)**

**RANK: 4 / 10 PARISHES ASSESSED** 

**SCORE: 0.436** 

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



#### **Economic Constraints**

0 1

SCORE: 0.334

**RANK: 7/10 PARISHES ASSESSED** 

**47.8**Economic Dependency

32.6% Poverty Rate



#### **Environmental Stress**

0 SCORE: 0.473 RANK: 5/10 PARISHES ASSESSED

**49.8%** Coastal

Coastal Co Population Ex Concentration to

Coastline Exposure to Local or Global Threats

46.4%

32.0% Tree Cover Loss



#### **Household Infrastructure Vulnerability**

0 TANK: 5/10 PARISHES ASSESSED

10.9% Housing Built Prior to 2003 26.5% Households with Reduced Water Availability



#### **Household Composition and Vulnerable Health**



SCORE: 0.436 RANK: 7/10 PARISHES ASSESSED

**4.8%**Prevalence of Disability (per 100 persons)

1.3%
Institutionalized Population

**9.3%**Population
Age 65 and
Over

23.1% Population Under Age 15



#### **Population Pressures**

0

SCORE: 0.529 RANK: 3/10 PARISHES ASSESSED

**1.4%**Average Annual Population

Change

Population Density (persons per sq km)

143.5

17.3% Youth Bulge (population ages 15-24)



# **ISLAND CAPACITY (IC)**

**RANK: 6 / 10 PARISHES ASSESSED** 

**SCORE: 0.476** 

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



#### **Environmental Capacity**

0

SCORE: 0.289 RANK: 6/10 PARISHES ASSESSED

0.13% Croplands **43.5** Net Carbon 14.1% Protected Terrestrial Area

0.0%
Protected
Coastlines



#### **Emergency Service and Health Care Capacity**

0

1 SCORE: 0.556

**RANK: 6/10 PARISHES ASSESSED** 

**0.9**Average
Distance to
Shelter (km)

**1.1**Average
Distance to
Hospital or
Clinic (km)

2.7 Average Distance to Fire Station (km) 2.9 Average Distance to Police Station (km) **0.5**Hospitals and Clinics per 1,000 Persons

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## **LOGISTICS CAPACITY (LC)**

**RANK: 5 / 10 PARISHES ASSESSED** 

**SCORE: 0.519** 

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



#### **Maritime Logistics**

0 \ 1

SCORE: 0.378

**RANK: 7/10 PARISHES ASSESSED** 

2.1

Average Distance to Seaport (km) 85.8
Distance
to External
Medium or
Large Seaport
(km)

2.8
Port Density
(ports per
10 km of
coastline)



#### Air Support

0

1 SCORE: 0.432 RANK: 7/10 PARISHES ASSESSED

89.4

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

3.0



#### **Transportation Capacity**

0

2.5

1 SCORE: 0.614 RANK: 3

**RANK: 3/10 PARISHES ASSESSED** 

**0.4**Gas Stations per 1,000

Persons

Road Density (km of roads per sq km)



#### Warehouse Access

0 \

SCORE: 0.651

**RANK: 4/10 PARISHES ASSESSED** 

**5.4** Average

Average Distance to Warehouse (km) 308.3
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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 6 / 10 PARISHES ASSESSED

**SCORE: 0.497** 



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

RANK: 5 / 10 PARISHES ASSESSED

**SCORE: 0.531** 

#### **KEY FACTORS INFLUENCING RESILIENCE**

Saint Paul's score and ranking are due to High 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.



#### **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.



#### **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.



#### **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 / 10 PARISHES ASSESSED SCORE: 0.476
V/\-	Earthquake	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.584
	Extreme Heat	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000
	Flash Flood	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.238
	Hurricane Winds	RANK: 5 / 10 PARISHES ASSESSED SCORE: 0.584
MÈ	Landslide	RANK: 9 / 10 PARISHES ASSESSED SCORE: 0.372
	Sea Level Rise	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.492
(Ca)	Tsunami	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.342
\$	Volcano	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.593
	Wildfire	RANK: 1 / 10 PARISHES ASSESSED SCORE: 0.683



## **MULTI-HAZARD RISK (MHR)**

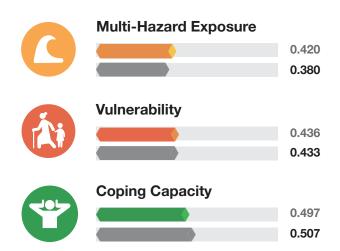
4/10

RANK AMONG PARISHES Score: 0.453

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

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







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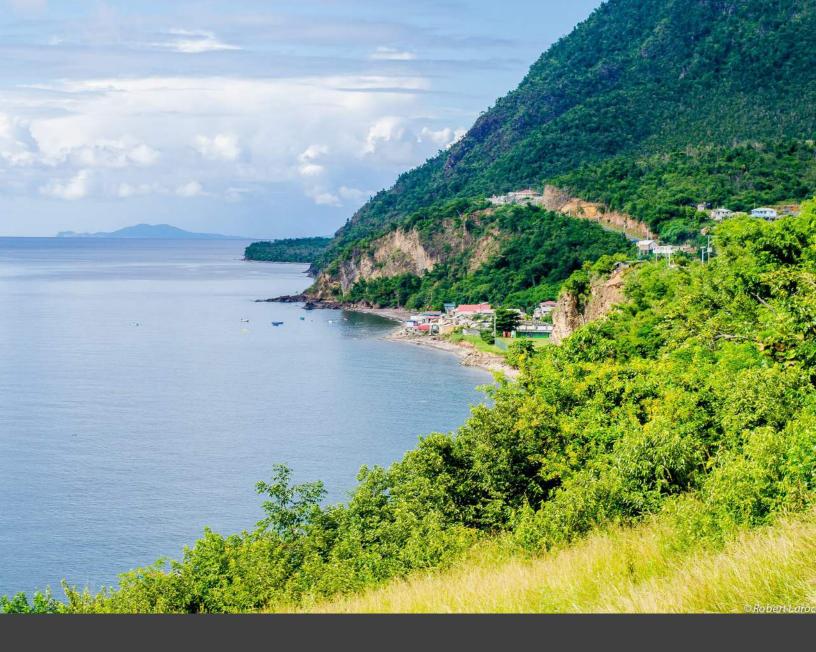
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DOMINICA
SAINT PETER

## **NDPBA SUBNATIONAL PROFILE**



## DOMINICA SAINT PETER

Area: 34.2 km2



## **RISK AND VULNERABILITY**

**COMPONENT SCORE** 



## **MULTI-HAZARD RISK (MHR)**

- Very Low

Score: 0.349 • Rank: 10/10



**Total Population (2011)** 

1,371



## **RESILIENCE (R)**

- Moderate

Score: 0.510 • Rank: 6/10



Coastal Population Concentration

1.0%



## **MULTI-HAZARD EXPOSURE (MHE)**

- Very Low

Score: 0.067 • Rank: 10/10



**Poverty Rate** 

23.7%



## **VULNERABILITY (V)**

- Low

Score: 0.334 • Rank: 8/10



Households with Reduced Water Availability

35.9%



#### **COPING CAPACITY (CC)**

- Very Low

Score: 0.353 • Rank: 9/10



Coastline Exposure to Local or Global Threats

0.0%



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 10 / 10 PARISHES ASSESSED** 

**SCORE: 0.067** 



MHE 0.067

Raw MHE 0.023

Relative MHE 0.111

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



**Coastal Flooding** 

6%

**4** 71

Buildings Exposed: 10%

Critical Infrastructure Exposed: 41%



**Hurricane Winds** 

100%

**1,290** 

Buildings Exposed: **100%** 

Critical Infrastructure Exposed: 100%



**Earthquake** 

100%

**1,290** 

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

34%

**443** 

Buildings Exposed: 33%

Critical Infrastructure Exposed: **58%** 



**Extreme Heat** 

0%

**≗** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

4%

**4** 57

Buildings Exposed: 10%

Critical Infrastructure Exposed: 41%



Flash Flood

22%

**287** 

Buildings Exposed: 33%

Critical Infrastructure Exposed: 46%



Tsunami

2%

**30** 

Buildings Exposed: 3%

Critical Infrastructure Exposed: 31%

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



# MULTI-HAZARD EXPOSURE (MHE)

**RANK: 10 / 10 PARISHES ASSESSED** 

**SCORE: 0.067** 

## **ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):**



Volcano

0%

**&** 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Wildfire

11%

**148** 

Buildings Exposed: 10%

Critical Infrastructure Exposed: 5%



## **VULNERABILITY (V)**

**RANK: 8 / 10 PARISHES ASSESSED** 

**SCORE: 0.334** 

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



## **Economic Constraints**



SCORE: 0.348 RANK: 6/10 PAR

**RANK: 6/10 PARISHES ASSESSED** 

**52.3**Economic
Dependency
Ratio

23.7% Poverty Rate



## **Environmental Stress**



1.0%
Coastal
Population
Concentration

**0.0%**Coastline
Exposure
to Local or
Global Threats

30.0% Tree Cover Loss



## **Household Infrastructure Vulnerability**

1 SCORE: 0.278 RANK: 8/10 PARISHES ASSESSED

9.5% Housing Built Prior to 2003

Households with Reduced Water Availability

35.9%



## Household Composition and Vulnerable Health



SCORE: 0.488 RANK: 4/10 PARISHES ASSESSED

**6.2%**Prevalence of Disability (per 100 persons)

**0.2%**Institutionalized Population

**14.3%**Population
Age 65 and
Over

20.1% Population Under Age 15



## **Population Pressures**



SCORE: 0.083 RANK: 10/10 PARISHES ASSESSED

**0.6%**Average Annual Population Change

40.1
Population
Density
(persons per
sq km)

14.8% Youth Bulge (population ages 15-24)



## **ISLAND CAPACITY (IC)**

**RANK: 9 / 10 PARISHES ASSESSED** 

**SCORE: 0.396** 

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



## **Environmental Capacity**

SCORE: 0.229 **RANK: 7/10 PARISHES ASSESSED** 

0.00%

18.1 Croplands Net Carbon

12.1% 0.0% Protected Protected

Terrestrial Area



## **Emergency Service and Health Care Capacity**

1 SCORE: 0.467 **RANK: 9/10 PARISHES ASSESSED** 

Coastlines

2.0 Average Distance to Shelter (km) 1.3 Average Distance to Hospital or Clinic (km)

8.4 Average Distance to Fire Station (km)

2.4 Average Distance to Police Station (km)

1.6 Hospitals and Clinics per 1,000 Persons



## **LOGISTICS CAPACITY (LC)**

**RANK: 8 / 10 PARISHES ASSESSED** 

**SCORE: 0.311** 

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



## **Maritime Logistics**

0 🔷 1

SCORE: 0.466

**RANK: 6/10 PARISHES ASSESSED** 

2.3
Average
Distance to
Seaport (km)

77.3
Distance to External Medium or Large Seaport (km)

1.0 Port Density (ports per 10 km of coastline)



## Air Support

0

SCORE: 0.395 RAN

**RANK: 8/10 PARISHES ASSESSED** 

80.8
Distance to
External C130
Airport (km)

**7.6**Average
Distance to
Airport or
Heliport (km)



## **Transportation Capacity**

0 1

1 SCORE: 0.084

**RANK: 9/10 PARISHES ASSESSED** 

O.O
Gas Stations
per 1,000
Persons

1.7 Road Density (km of roads per sq km)



#### Warehouse Access

0

SCORE: 0.300

**RANK: 9/10 PARISHES ASSESSED** 

**6.6** Average

Average Distance to Warehouse (km) 326.6
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 Dominica was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 9 / 10 PARISHES ASSESSED

**SCORE: 0.353** 



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

RANK: 6 / 10 PARISHES ASSESSED

**SCORE: 0.510** 

## **KEY FACTORS INFLUENCING RESILIENCE**

Saint Peter'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:



## **Household Composition and Vulnerable Health**

Households with dependent populations, such as the very young, elderly and the disabled, and populations living in institutional settings 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.



## **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.



## **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.



## **Warehouse Access**

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.



## **HAZARD-SPECIFIC RISK (HSR)**

	Coastal Flooding	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.451
-M-	Earthquake	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.505
	Extreme Heat	RANK: 8 / 10 PARISHES ASSESSED SCORE: 0.000
	Flash Flood	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.327
	Hurricane Winds	RANK: 7 / 10 PARISHES ASSESSED SCORE: 0.505
MÈ	Landslide	RANK: 3 / 10 PARISHES ASSESSED SCORE: 0.518
	Sea Level Rise	RANK: 2 / 10 PARISHES ASSESSED SCORE: 0.460
Cá.	Tsunami	RANK: 6 / 10 PARISHES ASSESSED SCORE: 0.297
\$	Volcano ♦	RANK: 10 / 10 PARISHES ASSESSED SCORE: 0.000
	Wildfire	RANK: 4 / 10 PARISHES ASSESSED SCORE: 0.309



## **MULTI-HAZARD RISK (MHR)**

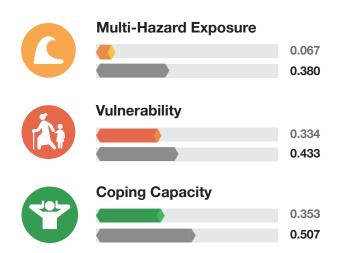


10 / 10 RANK AMONG PARISHES Score: 0.349

Saint Peter'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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