



THE BAHAMAS  
**ABACO**

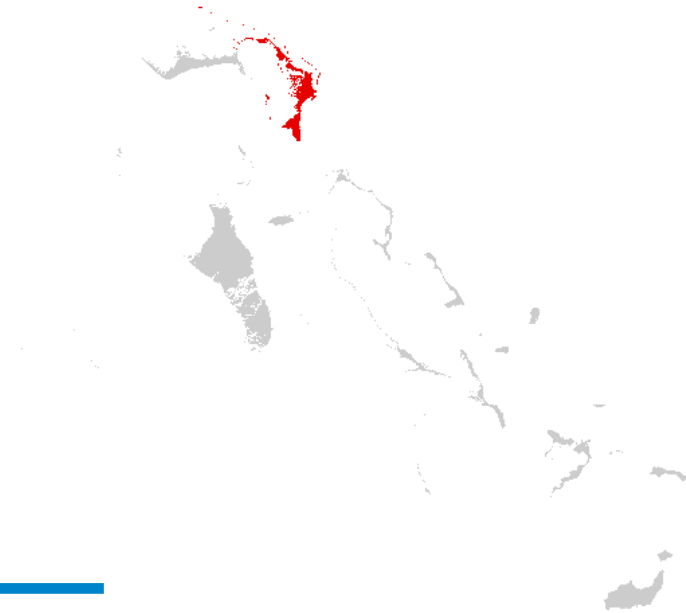
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**NDPBA ISLAND PROFILE**

# THE BAHAMAS ABACO

**CAPITAL: MARSH HARBOUR**

Area: 649 sq. mi (1,681 sq. km)



## RISK AND VULNERABILITY COMPONENT SCORE



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

Score: 0.395 • Rank: 7/17



**RESILIENCE (R) - High**

Score: 0.563 • Rank: 6/17



**MULTI-HAZARD EXPOSURE (MHE) - Very High**

Score: 0.689 • Rank: 2/17



**VULNERABILITY (V) - Moderate**

Score: 0.465 • Rank: 6/17



**COPING CAPACITY (CC) - High**

Score: 0.759 • Rank: 4/17



Population (2010 Census)

**17,224**



Population in Poverty

**43.1%**



Average Annual Foreign Arrivals Per Capita

**24.6**



Households with Piped Water

**85.1%**



Prevalence of Crowded Housing

**29.9%**

\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 2 / 17 ISLANDS

SCORE: 0.689



MHE  
0.689

Raw MHE  
0.705

Relative MHE  
0.673

### ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:

Note: Population values from PDC's All-hazard Impact Model (AIM) leverage 2020 estimates for The Bahamas. Values may exceed 2010 Census population.



Tropical Cyclone Winds

**100.0%**

👤 19,552

**\$1.1 Billion**



Storm Surge

**82.2%**

👤 16,062

**\$937.5 Million**



Flooding

**38.6%**

👤 7,539

**\$491.4 Million**



Wildfire

**27.7%**

👤 5,410

**\$601.7 Million**



Landslide

**2.0%**

👤 399

**\$17.4 Million**



Sea Level Rise

**0.8%**

👤 163

**\$11.9 Million**



# VULNERABILITY (V)

**RANK: 6 / 17 ISLANDS ASSESSED**  
**SCORE: 0.465**

Vulnerability in Abaco is primarily driven by Population Pressures and Clean Water Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



## Environmental Stress

0  1 **SCORE: 0.525** **RANK: 10/17 ISLANDS ASSESSED**

<b>55.7%</b> Coral reef exposed to local threats	<b>75.4%</b> Coral reef exposed to thermal stress	<b>12.0%</b> Tree cover loss	<b>0.68 per mi. (0.42 per km)</b> Historical hurricane hits per length of coastline
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## Household Composition Vulnerability

0  1 **SCORE: 0.059** **RANK: 16/17 ISLANDS ASSESSED**

<b>2.6%</b> Disability	<b>6.1%</b> Elderly population (65+)
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## Clean Water Access Vulnerability

0  1 **SCORE: 0.647** **RANK: 2/17 ISLANDS ASSESSED**

<b>85.1%</b> Households with piped water	<b>93.7%</b> Households with flush toilets	<b>6.2%</b> Households with shared toilet facilities
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## Housing and Transportation Vulnerability

0  1 **SCORE: 0.449** **RANK: 8/17 ISLANDS ASSESSED**

<b>29.9%</b> Crowded housing	<b>32.0%</b> Population without private vehicle	<b>17.5%</b> Housing built before 1980
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## Economic Constraints

0  1 **SCORE: 0.431** **RANK: 8/17 ISLANDS ASSESSED**

<b>49.1</b> Economic dependency ratio	<b>\$87</b> Government benefits received (Bahamian Dollars)	<b>58.9%</b> Non-wage earning population	<b>43.1%</b> Poverty rate
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### Gender Inequality

0  1 **SCORE: 0.447** **RANK: 7/17 ISLANDS ASSESSED**

**0.39**  
Ratio female to male  
income

**1.06**  
Ratio female to male  
avg. years of school

**12**  
Adolescent birth rate  
(per 1,000)



### Population Pressures

0  1 **SCORE: 0.700** **RANK: 1/17 ISLANDS ASSESSED**

**30.8%**  
Average  
population  
change (2000 -  
2010)

**24.6**  
Average annual  
foreign arrivals  
per capita

**652.1**  
Average annual  
foreign arrivals  
per sq. mile

**14.7**  
Migration per 100  
persons



# ISLAND CAPACITY (IC)

**RANK: 7 / 17 ISLANDS ASSESSED**  
**SCORE: 0.548**

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



## Economic Capacity

0 1 **SCORE: 0.645** **RANK: 4/17 ISLANDS ASSESSED**

**0.9%** **\$14,700**  
 Households receiving remittances      Median income, Bahamian dollars



## Environmental Capacity

0 1 **SCORE: 0.753** **RANK: 3/17 ISLANDS ASSESSED**

**5.9%** **57%** **0.14 oz. per sq. ft (42.08 g per sq. m)**  
 Protected areas      Coastline protected by natural habitat      Standing fish stock



## Infrastructure Capacity

0 1 **SCORE: 0.409** **RANK: 15/17 ISLANDS ASSESSED**



## Health Care Capacity

**SCORE: 0.245** **RANK: 15/17 ISLANDS ASSESSED**

**1.2** **13.4** **6.4** **98.0%**  
 Physicians per 10,000      Nurses & midwives per 10,000      Clinics per 10,000      DTP3 Vaccine coverage rate



## Transportation Capacity

**SCORE: 0.527** **RANK: 8/17 ISLANDS ASSESSED**

**1.93 mi per sq. mi (1.2 km per sq. km)**  
 Road density



## Communications Capacity

**SCORE: 0.624** **RANK: 12/17 ISLANDS ASSESSED**

**49.4%** **71.4%**  
 Internet access      Mobile coverage



## Emergency Services Capacity

**SCORE: 0.108** **RANK: 16/17 ISLANDS ASSESSED**

**9.25 mi (14.89 km)** **75.52 mi (121.51 km)** **0.0**  
 Average distance to police station      Average distance to shelter      Shelter capacity per 100 persons



## Energy Capacity

**SCORE: 0.538** **RANK: 15/17 ISLANDS ASSESSED**

**82.9%** **68.2%**  
 Households with electricity      Households with liquid propane gas



## LOGISTICS CAPACITY (LC)

**RANK: 3 / 18 ISLANDS ASSESSED**  
**SCORE: 0.966**

Logistics Capacity describes the ability of the island to ensure efficient storage, movement, and delivery of resources key for effective humanitarian assistance and disaster relief operations. Logistics Capacity is driven by distances to a major airport, major seaport, and disaster warehouse.



**0 mi (0 km)**

Distance to port



**0 mi (0 km)**

Distance to airport



**65.39 mi (105.21 km)**

Distance to  
warehouse



## COPING CAPACITY (CC)

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

**RANK: 4 / 17 ISLANDS ASSESSED**  
**SCORE: 0.759**



## RESILIENCE (R)

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

**RANK: 6 / 17 ISLANDS ASSESSED**  
**SCORE: 0.563**



## HAZARD-SPECIFIC RISK (HSR)



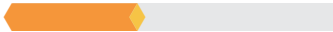
**Tropical Cyclone Winds** RANK: 12 / 17 ISLANDS ASSESSED  
 SCORE: 0.405



**Storm Surge** RANK: 7 / 17 ISLANDS ASSESSED  
 SCORE: 0.414



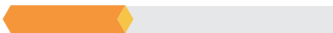
**Flooding** RANK: 7 / 17 ISLANDS ASSESSED  
 SCORE: 0.365



**Wildfire** RANK: 2 / 17 ISLANDS ASSESSED  
 SCORE: 0.411



**Landslide** RANK: 9 / 17 ISLANDS ASSESSED  
 SCORE: 0.333



**Sea Level Rise** RANK: 2 / 17 ISLANDS ASSESSED  
 SCORE: 0.410



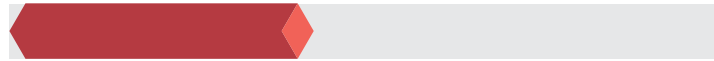




## MULTI-HAZARD RISK (MHR)

**7 / 17**

RANK WITHIN ISLANDS  
Score: 0.395



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

### Multi-hazard risk component scores compared to overall average country scores:



#### Multi-Hazard Exposure



#### Vulnerability



#### Coping Capacity



# ABACO RECOMMENDATIONS



## 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.

Abaco ranks first for overall Population Pressures in The Bahamas, driven by both the 3rd highest overall population increase between 2000 and 2010 (31%) and the highest migration rate per 100 persons (14.7). Rapid population growth in Abaco and the expansion of informal migrant settlements across the island are linked to unsustainable and unplanned building development, placing strain on the island's services and infrastructure. Undocumented migrant populations can also complicate emergency preparedness and response planning, including evacuation, sheltering, and damage and needs assessments. During Hurricane Dorian, undocumented migrant populations occupied shantytowns in Marsh Harbour, suffering severe flood and wind damages, and obscuring loss estimates. Given Abaco's 2nd highest overall Multi-Hazard Exposure ranking in The Bahamas, it is critical that projects and plans support the growing population, institute coastline protections and setbacks, endorse safer building codes, and emphasize the importance of personal/family disaster preparedness.

Closely monitor migration to Abaco and strengthen short- and long-term planning to anticipate the requirements of a growing population in line with sustainable development practices. Use a multi-stakeholder approach to address issues of sustainable housing development, social services, economic inclusion, public safety, and emergency management.

Conduct periodic surveying and mapping of informal settlement locations to address needs, and update disaster response and recovery plans to ensure adequate planning for evacuation, sheltering and mass care. Assess exposure of undocumented migrant settlements in relation to hazards affecting Abaco, including tropical cyclone wind, storm surge, flood, wildfire, sea-level rise, and landslides to anticipate potential impacts.

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## ABACO RECOMMENDATIONS

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# 2

### Clean Water Access Vulnerability

Those without easy or adequate access to water distribution and containment systems face significant demands on daily routines that effectively limit their response and recovery capacity and the ability to maintain livelihoods. Increasing access to improved water and sanitation in Abaco improves health outcomes and frees up resources to decrease further susceptibility to impacts.

Abaco ranks 2nd in The Bahamas for Clean Water Access Vulnerability, with only 85% of homes having a public or private piped water source. Over 6% of homes do not have access to flush toilets, and the same percentage (6%) use shared toilet facilities. Invest in the expansion of piped water and sewer systems to underserved areas, as growing population and climate change will only exacerbate existing vulnerabilities.

Given Abaco's exposure to storm surge, flood, and sea-level rise, institute measures to protect water supplies and prevent the spread of enteric disease from untreated sewage following hazard events.

Strengthen collaboration with non-government partners to address clean water and sanitation issues within informal settlements, including potential public health and environmental impacts.

## ABACO RECOMMENDATIONS

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# 3

### Emergency Service Capacity

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services in Abaco will increase the capacity for disaster management and response.

Abaco has the 2nd lowest Emergency Services Capacity when compared to the rest of The Bahamas. The island has the highest average distance to shelter as well as the lowest shelter capacity per 100 persons. Most of Abaco's designated hurricane shelters were destroyed by Hurricane Dorian in 2019. In addition, the average distance to a police station is 6th highest in the country.

Strengthen emergency service capacity by increasing the number of designated emergency shelters on the island. Expand shelter capacity by designating existing structures or investing in new purpose-built shelter locations outside of hazard-prone areas. Given Abaco's exposure to hurricanes, ensure that new shelters can withstand wind and flood impacts. Update existing disaster management and logistics plans to incorporate lessons learned from previous disaster events and ensure that adequate resources and equipment are available to support evacuation and mass care of affected populations during a disaster.

Address existing public policy to expand the police force and the presence of patrols. Identify community policing opportunities and promote feedback from communities on efforts that may alleviate the strain caused by lengthy response times and/or limited police services.

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## ABACO RECOMMENDATIONS

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# 4

### Health Care Capacity

Robust access to skilled caregivers and the dedicated facilities for the treatment of injury and disease during non-disaster times greatly enhances the ability of the served population to absorb and manage post-disaster impacts to health, and increases the likelihood that disaster associated health and medical impacts may be addressed.

Abaco has the 3rd lowest overall Health Care Capacity in The Bahamas, driven by the 5th lowest number of physicians per 10,000 persons (1.2), the 4th lowest numbers of nurses and midwives per 10,000 persons (13.4), and the 4th lowest clinics per 10,000 persons (6.4). A lack of skilled health care professionals and resources creates limitations in meeting emergent medical needs. The resulting triage of limited medical resources can exacerbate mass casualty situations and acute disease outbreaks in the aftermath of a disaster.

Assess and remove health care barriers to adequately address outpatient medical needs for all members of society, preventing medical conditions from turning into more complex in-patient treatment situations. Expand outpatient health clinics to address medical needs without a hospital.

Work with the Ministry of Health and Wellness to promote comprehensive health education programs, including nutrition, exercise, vaccination, child, and maternal health to promote the overall wellbeing and quality of life on the island.

**Better solutions.  
Fewer disasters.**

# Safer world.

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