



THE BAHAMAS
BIMINI

NDPBA ISLAND PROFILE

THE BAHAMAS BIMINI

CAPITAL: ALICE TOWN

Area: 11 sq. mi (28.5 sq. km)



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Very Low

Score: 0.287 • Rank: 16/17



RESILIENCE (R) - Low

Score: 0.484 • Rank: 10/17



MULTI-HAZARD EXPOSURE (MHE) - Very Low

Score: 0.114 • Rank: 16/17



VULNERABILITY (V) - Low

Score: 0.432 • Rank: 10/17



COPING CAPACITY (CC) - Low

Score: 0.617 • Rank: 11/17



Population (2010 Census)

1,988



Population in Poverty

33.7%



Average Annual Foreign Arrivals Per Capita

61.2



Households with Piped Water

97.1%



Prevalence of Crowded Housing

22.5%

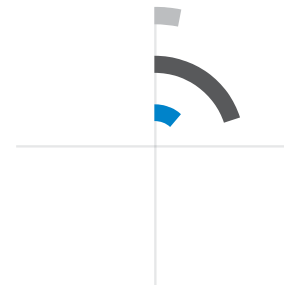
*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



MULTI-HAZARD EXPOSURE (MHE)

RANK: 16 / 17 ISLANDS

SCORE: 0.114



MHE
0.114

Raw MHE
0.199

Relative MHE
0.029

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%

2,020

\$59.4 Million



Storm Surge

15.8%

319

\$23.8 Million



Flooding

0.0%

0

0



Wildfire

0.0%

0

0



Landslide

6.5%

131

\$1.2 Million



Sea Level Rise

0.5%

< 25

\$230 Thousand



VULNERABILITY (V)

RANK: 10 / 17 ISLANDS ASSESSED
SCORE: 0.432

Vulnerability in Bimini is primarily driven by Housing and Transport Vulnerability and Environmental Stress. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Environmental Stress

0 1 **SCORE: 0.688** **RANK: 6/17 ISLANDS ASSESSED**

100.0% Coral reef exposed to local threats	100.0% Coral reef exposed to thermal stress	9.9% Tree cover loss	0.59 per mi. (0.36 per km) Historical hurricane hits per length of coastline
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Household Composition Vulnerability

0 1 **SCORE: 0.108** **RANK: 11/17 ISLANDS ASSESSED**

2.4% Disability	7.6% Elderly population (65+)
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Clean Water Access Vulnerability

0 1 **SCORE: 0.263** **RANK: 16/17 ISLANDS ASSESSED**

97.1% Households with piped water	100.0% Households with flush toilets	7.5% Households with shared toilet facilities
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Housing and Transportation Vulnerability

0 1 **SCORE: 0.691** **RANK: 1/17 ISLANDS ASSESSED**

22.5% Crowded housing	61.3% Population without private vehicle	35.2% Housing built before 1980
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Economic Constraints

0 1 **SCORE: 0.165** **RANK: 14/17 ISLANDS ASSESSED**

44.5 Economic dependency ratio	\$62 Government benefits received (Bahamian Dollars)	46.3% Non-wage earning population	33.7% Poverty rate
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Gender Inequality

0 1 **SCORE: 0.565** **RANK: 5/17 ISLANDS ASSESSED**

0.71

Ratio female to male income

1.09

Ratio female to male avg. years of school

37

Adolescent birth rate (per 1,000)



Population Pressures

0 1 **SCORE: 0.544** **RANK: 5/17 ISLANDS ASSESSED**

15.8%

Average population change (2000 - 2010)

61.2

Average annual foreign arrivals per capita

11,064.2

Average annual foreign arrivals per sq. mile

2.7

Migration per 100 persons



ISLAND CAPACITY (IC)

RANK: 13 / 17 ISLANDS ASSESSED
SCORE: 0.397

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



Economic Capacity

0 1 **SCORE: 0.237** **RANK: 11/17 ISLANDS ASSESSED**

0.0% **\$12,600**
 Households receiving remittances Median income, Bahamian dollars



Environmental Capacity

0 1 **SCORE: 0.171** **RANK: 13/17 ISLANDS ASSESSED**

0.0% **25%** **0.11 oz. per sq. ft (32.81 g per sq. m)**
 Protected areas Coastline protected by natural habitat Standing fish stock



Infrastructure Capacity

0 1 **SCORE: 0.584** **RANK: 8/17 ISLANDS ASSESSED**



Health Care Capacity

SCORE: 0.352 **RANK: 12/17 ISLANDS ASSESSED**

5.0 **20.1** **10.1** **100.0%**
 Physicians per 10,000 Nurses & midwives per 10,000 Clinics per 10,000 DTP3 Vaccine coverage rate



Transportation Capacity

SCORE: 0.523 **RANK: 9/17 ISLANDS ASSESSED**

1.9 mi per sq. mi (1.18 km per sq. km)
 Road density



Communications Capacity

SCORE: 0.811 **RANK: 4/17 ISLANDS ASSESSED**

62.3% **82.1%**
 Internet access Mobile coverage



Emergency Services Capacity

SCORE: 0.663 **RANK: 5/17 ISLANDS ASSESSED**

3.44 mi (5.53 km) **2.9 mi (4.66 km)** **29.7**
 Average distance to police station Average distance to shelter Shelter capacity per 100 persons



Energy Capacity

SCORE: 0.572 **RANK: 14/17 ISLANDS ASSESSED**

94.9% **41.8%**
 Households with electricity Households with liquid propane gas



LOGISTICS CAPACITY (LC)

RANK: 9 / 18 ISLANDS ASSESSED
SCORE: 0.833

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.



65.39 mi (105.21 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: 11 / 17 ISLANDS ASSESSED
SCORE: 0.617



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: 10 / 17 ISLANDS ASSESSED
SCORE: 0.484



HAZARD-SPECIFIC RISK (HSR)



Tropical Cyclone Winds RANK: 9 / 17 ISLANDS ASSESSED
 SCORE: 0.432



Storm Surge RANK: 16 / 17 ISLANDS ASSESSED
 SCORE: 0.309



Flooding RANK: 11 / 17 ISLANDS ASSESSED
 SCORE: 0.000



Wildfire RANK: 7 / 17 ISLANDS ASSESSED
 SCORE: 0.000



Landslide RANK: 5 / 17 ISLANDS ASSESSED
 SCORE: 0.393



Sea Level Rise RANK: 4 / 17 ISLANDS ASSESSED
 SCORE: 0.395



MULTI-HAZARD RISK (MHR)

16 / 17

RANK WITHIN ISLANDS
Score: 0.287

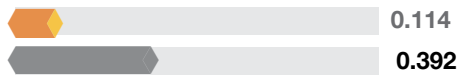


Bimini's score and ranking are due to Very Low Multi-hazard Exposure combined with Low Vulnerability and Low Coping Capacity scores.

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



Multi-Hazard Exposure



Vulnerability



Coping Capacity



BIMINI RECOMMENDATIONS



Housing and Transport Vulnerability

Older housing units, constructed prior to modern building codes, are more susceptible to the damaging effects of natural hazards. Crowded housing is linked to both economic constraints and vulnerable health status, which are exacerbated by hazard exposure. Crowding presents a challenge for disaster response activities including evacuation and sheltering when large numbers of people must relocate from their homes. These challenges are further complicated when households do not have personal means of transportation, relying instead on public or mass transit.

Bimini ranks highest in Housing and Transport Vulnerability. Contributing to this score is 61% of the population without a vehicle for private use. Inadequate transportation services for populations can limit mobility, economic opportunity, access to adequate food sources, access to necessary healthcare, and access to government services. Not having reliable transportation also increases dependency on other individuals and government resources in times of disaster.

Identify alternative methods of transportation such as bicycles and walking and focus on adequately developing infrastructure to encourage it. Survey the population to identify desirable transportation options, balancing development and implementation with realistic, sustainable solutions. Ensure emergency supply, evacuation and shelter planning consider an increased need in transportation support.

BIMINI RECOMMENDATIONS

2

Environmental Stress

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

Bimini ranks 6th overall for Environmental Stress, with 100% of reefs exposed to local threats, and 100% exposed to thermal stress, the highest out of all islands in The Bahamas. In addition, Bimini ranks 4th highest in The Bahamas for exposure to sea level rise. Reefs already under stress may experience more dramatic decline due to the effects of climate change.

Ensure climate change policies account for development of programs to monitor reef stress in and around the islands. Institute policies to decrease public or commercial activity near the reefs, perhaps establishing additional environmental protection areas where applicable and economically feasible. Provide educational training on sustainable development and environmental stewardship for both private and public entities.

BIMINI RECOMMENDATIONS

3

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.

Bimini has the 6th lowest Health Care Capacity in The Bahamas, driven by both the 6th lowest number of clinics per 10,000 persons (10), and nurses and midwives per 10,000 persons (20). 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 casualties and acute disease outbreaks during a disaster.

Build additional health clinics to address medical needs that do not require a hospital. Locate new health care infrastructure outside of identified hazard zones.

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

BIMINI RECOMMENDATIONS

4

Transportation Capacity

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access island populations. Improved transportation capacity supports all aspects of Bimini's ability to distribute resources before, during, and after a disaster.

Bimini ranks 9th lowest among islands in The Bahamas for Transportation Capacity. Poor transportation capacity limits economic opportunities and mobility of society and reduces opportunities for individuals to attend higher education and find gainful employment. In addition, poor transportation capacity can hamper emergency response activities and decrease public access to vital resources such as adequate healthcare and food.

Evaluate transportation routes, including air and maritime, to reduce impact to movement in times of disaster. Identify emergency routes and vital transportation routes that provide critical access to services for the population. Update emergency plans to reflect transportation limitations and workarounds.

Identify areas with limited transportation opportunities to identify the best project areas where increasing transportation capacity has the highest impact. Ensure that all new transportation infrastructure projects include risk reduction initiatives to mitigate the impacts of future hazards, including sea level rise.

**Better solutions.
Fewer disasters.**

Safer world.

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