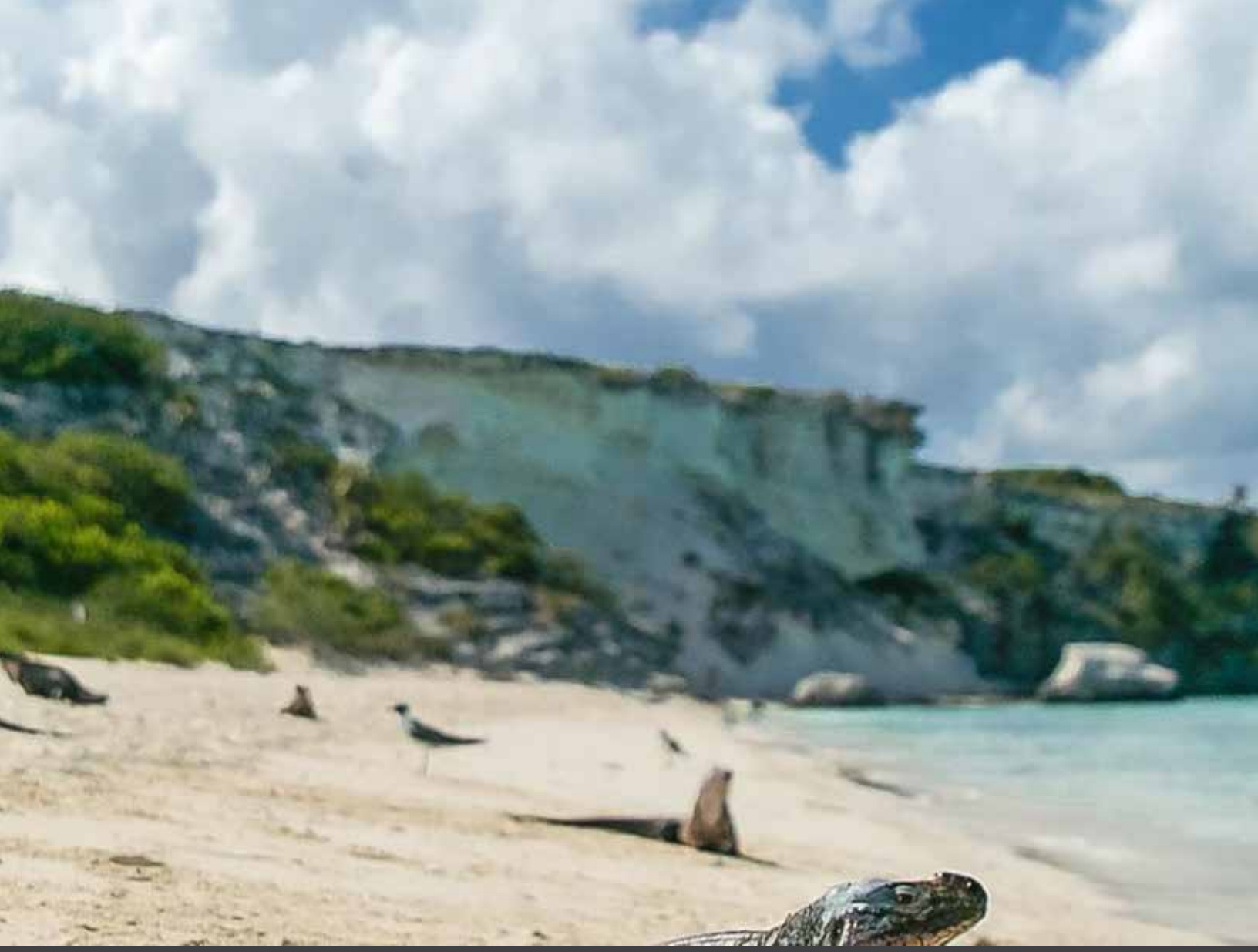


THE BAHAMAS

MAYAGUANA

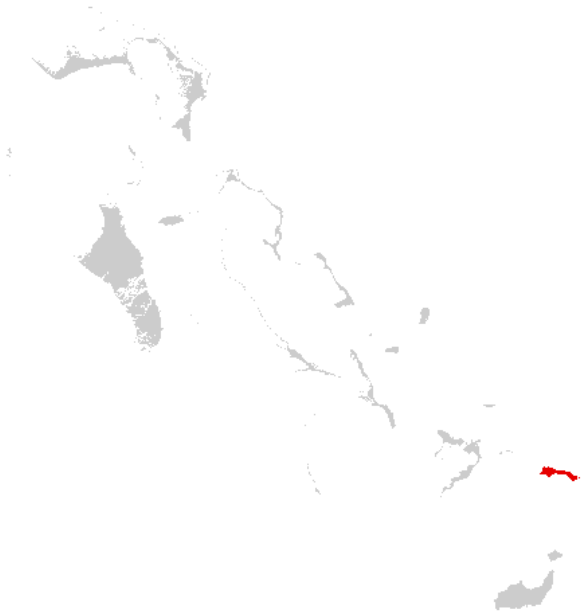
NDPBA ISLAND PROFILE

PDC | GLOBAL

THE BAHAMAS
MAYAGUANA

CAPITAL: ABRAHAM'S BAY

Area: 110 sq. mi (284.9 sq. km)



RISK AND VULNERABILITY
COMPONENT SCORE

MULTI-HAZARD RISK (MHR) - Moderate
Score: 0.377 • Rank: 9/17

RESILIENCE (R) - Very Low
Score: 0.349 • Rank: 17/17

MULTI-HAZARD EXPOSURE (MHE) - Very Low
Score: 0.133 • Rank: 15/17

VULNERABILITY (V) - Very Low
Score: 0.387 • Rank: 14/17

COPING CAPACITY (CC) - Very Low
Score: 0.263 • Rank: 17/17

Population (2010 Census)
277

Population in Poverty
41.2%

Average Annual Foreign Arrivals Per Capita
0

Households with Piped Water
91.6%

Prevalence of Crowded Housing
28.0%

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

MULTI-HAZARD EXPOSURE (MHE)

RANK: 15 / 17 ISLANDS
SCORE: 0.133

MHE
0.133

Raw MHE
0.018

Relative MHE
0.247

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%
287
$20.1 Million

Storm Surge
71.7%
206
$16.7 Million

Flooding
0.0%
0
0

Wildfire
0.0%
0
0

Landslide
0.0%
0
$20 Thousand

Sea Level Rise
0.0%
0
0

VULNERABILITY (V)

RANK: 14 / 17 ISLANDS ASSESSED
SCORE: 0.387

Vulnerability in Mayaguana is primarily driven by Household Composition Vulnerability and Housing and Transport Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.

Environmental Stress

0 — 1 **SCORE: 0.261** **RANK: 17/17** ISLANDS ASSESSED

0.8% Coral reef exposed to local threats
51.9% Coral reef exposed to thermal stress
2.0% Tree cover loss
1.19 per mi. (0.74 per km) Historical hurricane hits per length of coastline

Household Composition Vulnerability

0 — 1 **SCORE: 0.608** **RANK: 5/17** ISLANDS ASSESSED

3.3% Disability
16.6% Elderly population (65+)

Clean Water Access Vulnerability

0 — 1 **SCORE: 0.525** **RANK: 6/17** ISLANDS ASSESSED

91.6% Households with piped water
86.9% Households with flush toilets
1.9% Households with shared toilet facilities

Housing and Transportation Vulnerability

0 — 1 **SCORE: 0.605** **RANK: 2/17** ISLANDS ASSESSED

28.0% Crowded housing
33.6% Population without private vehicle
37.4% Housing built before 1980

Economic Constraints

0 — 1 **SCORE: 0.431** **RANK: 9/17** ISLANDS ASSESSED

57.1 Economic dependency ratio
$107 Government benefits received (Bahamian Dollars)
49.5% Non-wage earning population
41.2% Poverty rate

Gender Inequality

0 — 1 **SCORE: 0.099** **RANK: 16/17** ISLANDS ASSESSED

0.83
Ratio female to male income

1.00
Ratio female to male avg. years of school

-
Adolescent birth rate (per 1,000)

Population Pressures

0 — 1 **SCORE: 0.178** **RANK: 14/17** ISLANDS ASSESSED

7.0%
Average population change (2000 - 2010)

0.0
Average annual foreign arrivals per capita

0.0
Average annual foreign arrivals per sq. mile

5.1
Migration per 100 persons

ISLAND CAPACITY (IC)

RANK: 17 / 17 ISLANDS ASSESSED
SCORE: 0.317

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

Economic Capacity

0 — 1 **SCORE: 0.021** **RANK: 16/17** ISLANDS ASSESSED

0.0%
Households receiving remittances

$8,412
Median income, Bahamian dollars

Environmental Capacity

0 — 1 **SCORE: 0.069** **RANK: 15/17** ISLANDS ASSESSED

0.1%
Protected areas

23%
Coastline protected by natural habitat

0.09 oz. per sq. ft (27.22 g per sq. m)
Standing fish stock

Infrastructure Capacity

0 — 1 **SCORE: 0.594** **RANK: 6/17** ISLANDS ASSESSED

Health Care Capacity **SCORE: 0.750** **RANK: 2/17** ISLANDS ASSESSED

0.0
Physicians per 10,000

72.2
Nurses & midwives per 10,000

108.3
Clinics per 10,000

250.0%
DTP3 Vaccine coverage rate

Transportation Capacity **SCORE: 0.414** **RANK: 12/17** ISLANDS ASSESSED

1.26 mi per sq. mi (0.78 km per sq. km)
Road density

Communications Capacity **SCORE: 0.393** **RANK: 16/17** ISLANDS ASSESSED

23.5%
Internet access

76.5%
Mobile coverage

Emergency Services Capacity **SCORE: 0.514** **RANK: 10/17** ISLANDS ASSESSED

6.31 mi (10.15 km)
Average distance to police station

5.08 mi (8.17 km)
Average distance to shelter

27.1
Shelter capacity per 100 persons

Energy Capacity **SCORE: 0.899** **RANK: 5/17** ISLANDS ASSESSED

94.4%
Households with electricity

91.6%
Households with liquid propane gas

LOGISTICS CAPACITY (LC)

RANK: 16 / 18 ISLANDS ASSESSED
SCORE: 0.209

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.

201.73 mi (324.58 km)
Distance to port

160.57 mi (258.36 km)
Distance to airport

107.67 mi (173.24 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: 17 / 17 ISLANDS ASSESSED
SCORE: 0.263

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: 17 / 17 ISLANDS ASSESSED
SCORE: 0.349

HAZARD-SPECIFIC RISK (HSR)

Tropical Cyclone Winds	**RANK:** 2 / 17 ISLANDS ASSESSED	**SCORE:** 0.513
Storm Surge	**RANK:** 2 / 17 ISLANDS ASSESSED	**SCORE:** 0.522
Flooding	**RANK:** 11 / 17 ISLANDS ASSESSED	**SCORE:** 0.000
Wildfire	**RANK:** 7 / 17 ISLANDS ASSESSED	**SCORE:** 0.000
Landslide	**RANK:** 16 / 17 ISLANDS ASSESSED	**SCORE:** 0.238
Sea Level Rise	**RANK:** 17 / 17 ISLANDS ASSESSED	**SCORE:** 0.000

MULTI-HAZARD RISK (MHR)

9 / 17
RANK WITHIN ISLANDS
Score: 0.377

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

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

MAYAGUANA SCORE
COUNTRY SCORE

Multi-Hazard Exposure

0.133
0.392

Vulnerability

0.387
0.435

Coping Capacity

0.263
0.617

MAYAGUANA RECOMMENDATIONS

1

Household Composition Vulnerability

Vulnerable household members may have special needs that necessitate additional support to ensure their safety before, during, and after a disaster. Elderly or disabled family members more likely to require financial support, transportation, or specialized resources to support their daily care.

Mayaguana has the lowest overall Resilience ranking in The Bahamas and ranks 5th highest for Household Composition Vulnerability, driven by the highest percentage of households with elderly persons (17%) age 65 and older. Households with elderly individuals may require special accommodations during evacuation and sheltering during a disaster and may be dependent on other household members or caregivers for sustenance, health care, and housing needs.

Review and update local emergency plans to anticipate and address the special needs of vulnerable population groups. Include special considerations in disaster management and sheltering plans for those with chronic health conditions, mobility challenges or other disabilities. These individuals will require extra precautions to protect against transmission of COVID-19 or other communicable diseases during sheltering.

Strengthen partnerships with government agencies and non-government organizations to improve availability of, and access to, social programs providing services to vulnerable populations (e.g., children, the elderly, disabled). As part of service delivery, assist families in developing disaster preparedness and response plans.

MAYAGUANA RECOMMENDATIONS

2

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 be 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.

Mayaguana has the 2nd highest ranking for overall Housing and Transport Vulnerability. Contributing to this score is the 4th highest reported crowding rate per household, 34% of households without private vehicles, and 37% of homes built prior to 1980. 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.

Ensure that disaster response plans incorporate the requirement for additional transportation due to the number of households without vehicles and the number of persons in each household.

Boost resilience by implementing programs that provide government or private sector assistance to install safety measures, reinforce, or bring up to code existing older homes to reduce disaster impacts on Mayaguana's housing.

MAYAGUANA RECOMMENDATIONS

3

Logistics Capacity

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Ensuring that the supply chain can reach vulnerable and isolated communities can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.

Mayaguana has the lowest overall Coping Capacity in The Bahamas and ranks 2nd lowest for Logistics Capacity. Driving this ranking is the 2nd greatest distance to an international airport, the 2nd greatest distance to a port facility, and the 8th greatest distance to a warehouse. Airports and seaports are vital to receiving assistance in The Bahamas and long supply chains can greatly affect the ability of a population to absorb and respond to disasters. Strategic locations of warehouses for disaster equipment and supplies can facilitate effective and efficient response during a disaster.

Evaluate options to provide permanent storage for disaster response material such as bedding, food and water, roofing material, and medicine. Resident storage will make the island population more self -sufficient and decrease reliance on outside supplies during the early phase of a disaster.

Evaluate maritime routes and mailboat deliveries. Develop plans to increase delivery quantities from the mailboat or other shipping methods during hurricane season, especially prior to an approaching storm.

MAYAGUANA RECOMMENDATIONS

4

Communications Capacity

The density, diversity, resilience, and quality of communications infrastructure influence how island- and local-level populations able to facilitate effective and coordinated communication.

Mayaguana ranks 2nd lowest in The Bahamas for overall Communications Capacity with the 2nd lowest percentage of the population with internet access (23%) and the 5th lowest percentage of land area with mobile phone coverage (76%). Limited communications and lack of access to communications infrastructure exacerbate information access vulnerability and hinder the ability of government agencies to share critical information during disasters.

Boost Communications Capacity and overall resilience through the expansion of infrastructure to ensure coverage, accessibility, and reliability of communications during disasters. Encourage telecommunication infrastructure development at a sustainable pace and implement risk reduction measures in all infrastructure enhancements to protect against hazard impacts. Create communications plans to share critical information with the public during disasters with primary, alternate, contingency, and emergency plans for communication.

PDC | GLOBAL

Better solutions.
Fewer disasters.

Safer world.

1305 N Holopono Street
Suite 2, Kihei, HI 9675 3

P: (808) 891-0525
F: (808) 891-0526

@PDC_Global **/PDCGlobal** **www.pdc.prg** **ndpba.bah@pdc.org**