



PANAMÁ

BOCAS DEL TORO

**NDPBA PROVINCES AND INDIGENOUS COMARCAS
PROFILE**

PANAMÁ

BOCAS DEL TORO

CAPITAL: BOCAS DEL TORO

Area: 4,657 km²

The Bocas del Toro province is located in the western region of Panama. This Province is divided into 4 districts: Bocas del Toro (The Capital), Almirante, Changuinola and Chiriquí Grande. The province borders Caribbean Sea to the North, Costa Rica to the west, Chiriquí Province to the south, and Ngäbe Buglé. The main economic sources are cattle, banana and fishing.



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - High
Score: 0.548 • Rank: 4/13



RESILIENCE (R) - Low
Score: 0.471 • Rank: 9/13



MULTI-HAZARD EXPOSURE (MHE) - Medium
Score: 0.586 • Rank: 6/13



VULNERABILITY (V) - Medium
Score: 0.510 • Rank: 5/13



COPING CAPACITY (CC) - Low
Score: 0.453 • Rank: 9/13



Population (2020 Estimate)
179,990



Population in poverty
43.8%



Average years in school
8.2



Access to improved water
8.4% households



Infant mortality rate
(per 1,000 live births)
25

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



MULTI-HAZARD EXPOSURE (MHE)

**RANK: 6 / 13 PROVINCES AND
INDIGENOUS COMARCAS**
SCORE: 0.586



MHE
0.586

Raw MHE
0.581

Relative MHE
0.592

ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

2.3%

3,602

-



Flood

32.3%

50,111

1.4 Billion



Landslide

0.2%

268

-



Storm Surge

2.6%

4,038

20.6 Million



Sea Level Rise

54.1%

83,983

1.9 Billion



Wildfire

-

0

-



Tsunami

0.7%

1,045

3.6 Thousand



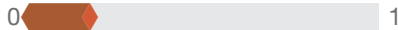
VULNERABILITY (V)

RANK: 5 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.510

Vulnerability in Bocas del Toro 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 SCORE: 0.177 RANK: 11/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



0.06% Percent forest cover lost	48.71 Density of livestock per sq. km	33.8% Percent of freshwater consumption to production
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Vulnerable Health Status SCORE: 0.596 RANK: 3/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



420.8 Dengue incidence per 100,000 persons	3 AIDS incidence per 100,000 persons	0.6 Malaria Incidence per 100,000 persons	82.1 TB incidence per 100,000 persons	27.7% Prevalence of stunting	2.8% Disability	67.46 Maternal Mortality Rate per 100,000 live births
24.51 Infant mortality per 1,000 live births	73.79 Life expectancy					



Clean Water Vulnerability SCORE: 0.629 RANK: 4/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



8.4% Households with access to improved drinking water	73.7% Households with access to improved sanitation
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Information Access Vulnerability SCORE: 0.521 RANK: 5/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



49.2% Households with radio	77.9% Households with TV	52.9% Households with internet	76.8% School attendance rate	8.17 Average years of schooling	8.5% Illiteracy rate
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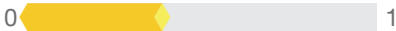
Economic Constraints SCORE: 0.540 RANK: 4/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



43.8% Poverty rate
0.71 Economic dependency ratio



Gender Inequality SCORE: 0.392 RANK: 10/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



0.03 Ratio female to male secondary enrollment
0.35 Ratio female to male labor
0.11 Proportion of female seats in local government



Population Pressures SCORE: 0.718 RANK: 2/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



5.2% Average annual urban population change
3.1% Percent average population change



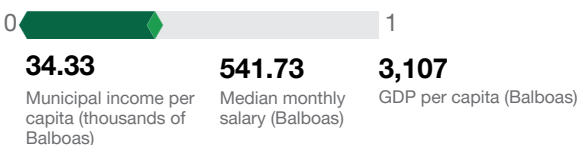
COPING CAPACITY (CC)

RANK: 9 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.453

Bocas del Toro exhibits weaker Coping Capacity in the areas of Economic Capacity and Governance. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



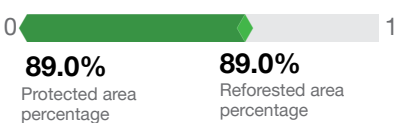
Economic Capacity SCORE: 0.371 RANK: 9/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Governance SCORE: 0.396 RANK: 8/0,396 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Environmental Capacity SCORE: 0.633 RANK: 1/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



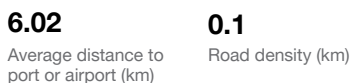
Infrastructure Capacity SCORE: 0.532 RANK: 9/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Health Care Capacity SCORE: 0.435 RANK: 8/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Transportation Capacity SCORE: 0.522 RANK: 6/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Communications Capacity SCORE: 0.555 RANK: 9/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED



Energy Capacity SCORE: 0.614 RANK: 9/13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED





RESILIENCE (R)

RANK: 9 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.471

Bocas del Toro's score and ranking are due to Medium Vulnerability combined with Low Coping Capacity scores.

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



Population Pressures



Clean Water Access Vulnerability



Economic Capacity



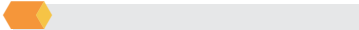
Governance



HAZARD-SPECIFIC RISK (HSR)



Earthquake



RANK: 9 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.096



Flood



RANK: 1 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.529



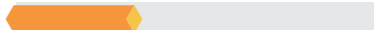
Sea Level Rise



RANK: 1 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.474



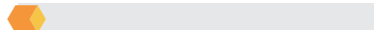
Storm Surge



RANK: 2 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.350



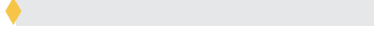
Landslide



RANK: 11 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.065



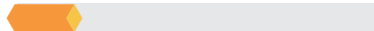
Wildfire



RANK: 11 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.000



Tsunami



RANK: 7 / 13 PROVINCES AND INDIGENOUS COMARCAS ASSESSED
SCORE: 0.173



MULTI-HAZARD RISK (MHR)

4 / 13

RANK WITHIN PROVINCES AND
INDIGENOUS COMARCAS
SCORE: 0.548



Bocas del Toro's score and ranking are due to Medium Multi-hazard Exposure combined with Medium Vulnerability and Low Coping Capacity scores.4,657

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

BOCAS DEL TORO SCORE
COUNTRY SCORE



Multi-Hazard Exposure



Vulnerability



Coping Capacity



BOCAS DEL TORO RECOMMENDATIONS



Population Pressures

Bocas del Toro ranks second in population pressures only behind Ngäbe Buglé and experiences a 5.19% annual population change. Population growth increases stress on public utilities, emergency services, and health care. An increase in these decreases the ability for governments to respond adequately to disasters and mass casualties with already limited resources. The migration of large populations leads to strain on social services, economic opportunities, and health care access. Lack of economic opportunity can potentially cause increased criminal activity, increased nutrition needs for vulnerable populations (i.e., elderly and adolescents), and lack of adequate shelter for individuals.

Given that Bocas del Toro ranks sixth highest in overall Multi-Hazard Exposure, monitor population growth to ensure policy, plans, and programs meet requirements to respond to mass casualties and disasters. Ensure population growth and migration remain at a stable and sustainable level. Identify causes and drivers of migration for large populations to address needs and limit forced migration. Ensure a comprehensive understanding of population change across the country to meet public safety needs and requirements.

BOCAS DEL TORO RECOMMENDATIONS

2

Clean Water Access Vulnerability

Bocas del Toro ranks fourth in Panama for Clean Water Access Vulnerability, with high access to improved sanitation. A lack of access to improved water sources and improved sanitation can lead to contracting enteric diseases from contaminated water supplies and increases the risk of the population facing an acute enteric disease outbreak. Water contamination and disease outbreaks exacerbate existing vulnerabilities and hazard exposures, and stress sometimes limits local health care resources. Lack of clean water in specific environments can quickly lead to a mass casualty situation needing national-level resources and external assistance to ensure a population has clean drinking water necessary for survival.

Invest in the development and water treatment and water distribution systems to ensure populations have access to clean water and adequate sanitation services. Develop an emergency action plan to identify and prevent acute enteric disease outbreaks can prevent community spread and isolate sources of contaminated water or inadequate sanitation.

BOCAS DEL TORO RECOMMENDATIONS

3

Economic Capacity

Bocas del Toro has the second lowest GDP per capita rankings when compared to the rest of Panama. The median salary of individuals in the province also ranks ninth in the country. Socioeconomic deprivation increases dependency on limited government resources and individuals and limits economic opportunity and mobility. A more consequential situation for socioeconomic deprivation is unchecked and forced migration of large populations, potentially creating immediate instability within civil society. As noted in the vulnerability results for Bocas del Toro, it ranks the highest in overall population pressures in Panama. Lack of economic capacity increases criminal activity, provides opportunities for transnational criminal organizations to gain influence, and stresses relationships between individuals and the standing government.

Encourage programs to generate public revenue and create new job opportunities. Address existing public policy to limit inflation and ensure equal employment opportunities, especially for marginalized populations. Expand and provide equal opportunity programs for disparate people to increase economic opportunity for all. Identify drivers of poverty and criminal activity to address opportunities for strained populations within civil society.

BOCAS DEL TORO RECOMMENDATIONS

4

Governance

Bocas del Toro ranks eighth in overall Governance. Voter participation is the lowest of all provinces in Panama, suggesting a possible challenge for governance and elections. Reduced governance can undermine stability for civil society creating further stress among disparate and disadvantaged populations. Provide financial and technical assistance to law enforcement to adequately address criminal activity. Identify underlying factors and drivers of illegal activity to ensure targeted actions with government resources are best utilized to reduce criminal activity.

Develop methods for measures of performance and measures of effectiveness to utilize limited government resources best. Identify feedback mechanisms for the public to best understand and identify issues of governance within civil society. Provide and integrate civic education to address government distrust and encourage participation in elections.

**Better solutions.
Fewer disasters.**

Safer world.

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