



BELIZE

COROZAL

NDPBA DISTRICTS PROFILE

BELIZE COROZAL

CAPITAL: COROZAL TOWN

Area: 2,235 km²

The Corozal District is located in the Northern region of Belize. This District is divided into 31 Cities, Towns and Villages: Corozal Town (The Capital), is the main city. The District borders Mexico to the Northwest, Orange walk to the southwest, Belize to the south, and the Atlantic Ocean to the east. The main economic sources for the country of Belize continues to be tourism, sugar, banana, citrus, marine products and crude oil.



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Low
Score: 0.437 • Rank: 5/6



RESILIENCE (R) - Low
Score: 0.466 • Rank: 5/6



MULTI-HAZARD EXPOSURE (MHE) - Very Low
Score: 0.068 • Rank: 6/6



VULNERABILITY (V) - Very High
Score: 0.553 • Rank: 2/6



COPING CAPACITY (CC) - High
Score: 0.485 • Rank: 3/6



Population (2010 Census)
41,061



Population in lowest wealth quintile
18.4%



Population with no secondary school education
67.8%



Households with unimproved water access
6.36% households



Infant mortality rate (per 1,000 live births)
17.8

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 6 DISTRICTS
SCORE: 0.068



ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

0.0%

0

-

Critical Infrastructure Exposed:
0.0%



Extreme Heat

0.0%

0

-

Critical Infrastructure Exposed:
0.0%



Flood

14.6%

7,094

\$112.7 Million

Critical Infrastructure Exposed:
10.9%



Landslide

0.0%

0

-

Critical Infrastructure Exposed:
0.0%



Storm Surge

4.3%

2,060

\$76.2 Million

Critical Infrastructure Exposed:
3.9%



Tropical Cyclone Winds

100.0%

48,467

\$848.4 Million

Critical Infrastructure Exposed:
100.0%



Wildfire

80.5%

39,027

\$804.2 Million

Critical Infrastructure Exposed:
76.6%



VULNERABILITY (V)

RANK: 2 / 6 DISTRICTS ASSESSED
SCORE: 0.553

Vulnerability in Corozal is primarily driven by Environmental Stress and Clean Water Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



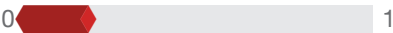
Environmental Stress SCORE: 1.000 RANK: 1/6 DISTRICTS ASSESSED



21.8% Tree cover loss	-6.9% Projected changes in annual precipitation	- Decline in land productivity
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Vulnerable Health Status SCORE: 0.189 RANK: 5/6 DISTRICTS ASSESSED



127.72 TB infections per 10k persons	494.57 Dengue incidence per 100k persons	84.24 Malaria incidence per 100k persons
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Clean Water Vulnerability SCORE: 0.63 RANK: 3/6 DISTRICTS ASSESSED



6.36% Households with unimproved water access	34.06% Households with unimproved sanitation
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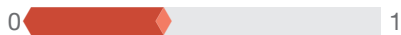
Information Access Vulnerability SCORE: 0.616 RANK: 3/6 DISTRICTS ASSESSED



75.7% Adult literacy	70.0 Primary to secondary school transition rate	23.2% Working population with no secondary school education	23.2% Households without radio access	15.7% Households without television access	90.6% Households without Internet access
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Economic Constraints SCORE: 0.385 RANK: 5/6 DISTRICTS ASSESSED



7.7% Average unemployment (2019)	24.9% Under-employment (2019)	63.6 Economic dependency ratio	18.4% Population in lowest wealth quintile
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Gender Inequality SCORE: 0.596 RANK: 1/6 DISTRICTS ASSESSED



316.85 Domestic violence cases per 10k persons	0,489 Female economic opportunity score	3 Female economic opportunity rank	1.06 Female to male secondary school transition ratio	0.16 Female to male income ratio	0.39 Female to male labor force participation ratio	0.434 Female healthcare access score
3 Female healthcare access rank	17.8 Infant mortality rate (per 1,000 live births)	122.1 Maternal mortality rate (per 100k live births)	104.0 Adolescent birth rate (per 1,000 women)	11.7% Unmet need for contraception		



Population Pressures SCORE: 0.459 RANK: 5/6 DISTRICTS ASSESSED



2.27% Average annual population change	2.83% Average annual urban population change	15.80% Prevalence of stunting
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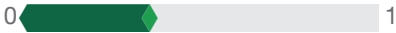
COPING CAPACITY (CC)

RANK: 3 / 6 DISTRICTS ASSESSED
SCORE: 0.485

Corozal exhibits weaker Coping Capacity in the areas of Emergency Service Capacity and Economic Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



Economic Capacity SCORE: 0.356 RANK: 5/6 DISTRICTS ASSESSED



77.3%

Households owning homes

3.8%

Change in active tourism business

\$73.88

Average revenue per room (BZ\$)

\$854.83

Median monthly income (BZ\$)

65.86

Labor force participation rate

20.3%

Population in highest wealth quintile



Governance SCORE: 0.629 RANK: 1/6 DISTRICTS ASSESSED



86.5%

Voter participation

28.4%

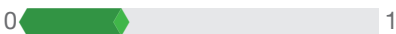
Households with municipal garbage collection

23.86

Crime rate per 10k persons



Environmental Capacity SCORE: 0.274 RANK: 6/6 DISTRICTS ASSESSED



76.2%

Land area with low interannual water variability

14.3%

Percent protected land area



Infrastructure Capacity SCORE: 0.592 RANK: 4/6 DISTRICTS ASSESSED



Health Care Capacity SCORE: 0.430 RANK: 4/6 DISTRICTS ASSESSED

4.13

Health care centers per 10,000 persons

8.04

Physicians per 10,000 persons

4.14

Nurses per 10,000 persons

86.1%

Immunization coverage

12.96

Average distance to hospital (km)

8.52

Hospital beds per 10,000 persons



Transportation Capacity SCORE: 0.864 RANK: 2/6 DISTRICTS ASSESSED

0.7

Road density (km)

6.8

Average distance to port facility (km)



Communications Capacity SCORE: 0.644 RANK: 4/6 DISTRICTS ASSESSED

1.96 Average distance to cell tower (km)	19.0% Households with fixed phone	76.7% Households with mobile phone
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Energy Capacity SCORE: 0.714 RANK: 5/6 DISTRICTS ASSESSED

93.5% Households with electricity	78.0% Households using gas for cooking
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Emergency Services Capacity SCORE: 0.306 RANK: 5/6 DISTRICTS ASSESSED

1,311 Emergency shelter capacity per 10,000 persons	36.1 Average distance to warehouse (km)	2.1 Average distance to emergency shelter (km)	13.8 Average distance to fire station (km)	10.2 Average distance to police station (km)
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RESILIENCE (R)

RANK: 5 / 6 DISTRICTS ASSESSED
SCORE: 0.466

Corozal'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:



Environmental Stress



Clean Water Access Vulnerability



Emergency Service Capacity



Economic Capacity



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 3 / 6 DISTRICTS ASSESSED
SCORE: 0.000



Extreme Heat

RANK: 5 / 6 DISTRICTS ASSESSED
SCORE: 0.000



Flood

RANK: 6 / 6 DISTRICTS ASSESSED
SCORE: 0.004



Landslide

RANK: 6 / 6 DISTRICTS ASSESSED
SCORE: 0.000



Storm Surge

RANK: 3 / 6 DISTRICTS ASSESSED
SCORE: 0.249



Tropical Cyclone Winds

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.303



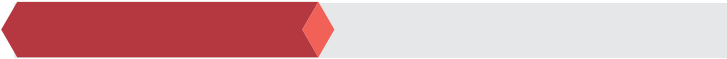
Wildfire

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.318



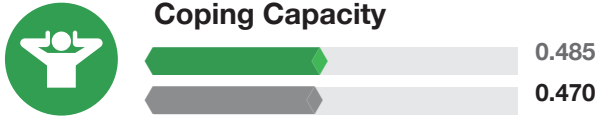
MULTI-HAZARD RISK (MHR)

5 / 6
RANK WITHIN DISTRICTS
SCORE: 0.437



Corozal's score and ranking are due to Very 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: █ █ **COROZAL SCORE** █ **COUNTRY SCORE**



COROZAL RECOMMENDATIONS



Environmental Stress

Corozal ranks the highest in Belize in environmental stress. According to data from the Global Forest Watch, this district has lost nearly 22% of its tree cover since the year 2000 and has the lowest acreage in protected areas of any district. High poverty rates, income inequality, food insecurity, and clean water access vulnerability can be further exacerbated by environmental stressors. Unsustainable development contributes to an increased risk of economic upheaval, force unsustainable migration patterns, and deplete already limited resources.

Environmental protection is vital to ensuring sustainable development within Belize. Developing and following sustainable development goals can address and mitigate factors that may be exacerbated during development phases. Improving land tenure legislation to remove “development” requirements on leased lands can allow for alternative land uses of natural areas (Ministry Agriculture et al., 2020). Promoting environmental health and mitigating sources of environmental stress will also help to safeguard against negative impacts to the growing tourism industry in Corozal. Additionally, expanding and diversifying protected areas can promote the sustainable use and protection of unique resources in the district, in addition to acting as a natural buffer against hazard impacts.

COROZAL RECOMMENDATIONS

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Clean Water Access Vulnerability

Corozal ranks third in Belize for Clean Water Access Vulnerability with 34% of households lacking access to improved sanitation. Lack of access to improved sanitation is a leading risk factor for infectious diseases such as cholera, dysentery, typhoid, and polio. Lack of reliable sanitation also increases the spread of mosquitos contributing to incidents of chikungunya, zika, and dengue. 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 Corozal improves health outcomes and frees up resources to decrease further susceptibility to impacts, as growing populations and climate change will only exacerbate existing vulnerabilities.

COROZAL RECOMMENDATIONS

3

Emergency Service Capacity

Corozal has the 2nd lowest Emergency Services Capacity when compared to the other 5 districts in Belize. The entire district only has one mapped fire station and two mapped police stations. Decreasing the distance between populations and emergency services infrastructure will help to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Corozal has a higher travel distance to warehouses and shelters. This could be due in part to the number of approved shelter locations which were not able to be mapped. However, a review of the locations and capacities of emergency shelters in the district can help save lives and make shelter more accessible to vulnerable populations. Ensure that new shelters can withstand wind and flood impacts annually prior to the start of the Atlantic Hurricane Season.

There are no emergency storage warehouses located within the district so emergency supplies travel on average 36 miles from Orange Walk to populated places in Corozal. Designating existing structures located within Corozal or investing in new purpose-built warehouse locations in the district will strengthen emergency services capacity. Update existing disaster management and logistics plans to ensure that adequate resources and equipment are available to support mass care of affected populations during a disaster.

COROZAL RECOMMENDATIONS

4

Economic Capacity

A strong economic foundation provides an indication of a district's ability to absorb economic losses and quickly mobilize financial assets for preparedness, response, and recovery activities. Corozal's limited economic capacity correlates to disproportionate disaster impacts. Corozal ranks second lowest in overall economic capacity in Belize. Contributing to this low ranking is the lowest median monthly income in Belize, more than \$300 Belizean less per month than the average of other districts. Additionally, low ratios of women to men in the workforce and high levels of underemployment may point to an uneven economy. Low economic capacity can exacerbate access to adequate health care, food stability, proper nutrition, and strain the environment and social services.

While the tourism industry in Corozal is still developing, the district has the highest rate of home ownership in the country, and the second lowest unemployment rate. Expanding public policies guaranteeing equal opportunity and fair wages for all could rapidly improve the district's economic capacity. Assess the feasibility of government programs to assist in job creation and economic growth through education and short-term assistance designed to promote self-sustaining economic opportunities and decrease long-term reliance on government programs.

Evaluate disaster response and recovery plans to ensure the inclusion of economically vulnerable populations in long- and short-term recovery processes. Review food security and nutrition requirements for a population and analyze if nutritional needs are being met and that in the case of disaster, nutritional requirements are planned for.

**Better solutions.
Fewer disasters.**

Safer world.

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