



BELIZE

ORANGE WALK

NDPBA DISTRICTS PROFILE

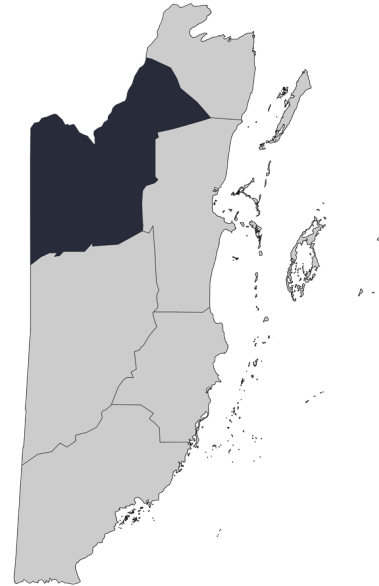
BELIZE

ORANGE WALK

CAPITAL: ORANGE WALK TOWN

Area: 5,106 km²

The Orange Walk District is located in the Northwest region of Belize. This District is divided into 37 Cities, Towns and Villages: Orange Walk Town (The Capital), is the main city. The District borders Mexico to the north, Guatemala to the west, Cayo to the south, Belize to the east and Corozal to the northeast. 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) - Moderate
Score: 0.449 • Rank: 4/6



RESILIENCE (R) - Moderate
Score: 0.500 • Rank: 4/6



MULTI-HAZARD EXPOSURE (MHE) - Moderate
Score: 0.218 • Rank: 4/6



VULNERABILITY (V) - Moderate
Score: 0.473 • Rank: 4/6



COPING CAPACITY (CC) - Moderate
Score: 0.474 • Rank: 4/6



Population (2010 Census)
45,946



Population in lowest wealth quintile
15.4%



Population with no secondary school education
76.2%



Households with unimproved water access
10.42% households



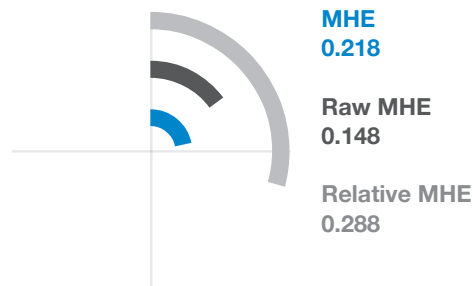
Infant mortality rate (per 1,000 live births)
7.9

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 4 / 6 DISTRICTS
SCORE: 0.218



ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

0.0%

0

-

Critical Infrastructure Exposed:
0.0%



Extreme Heat

35.4%

14,737

\$138.1 Million

Critical Infrastructure Exposed:
18.8%



Flood

16.0%

6,671

\$240.6 Million

Critical Infrastructure Exposed:
11.1%



Landslide

1.4%

571

\$20.4 Million

Critical Infrastructure Exposed:
1.7%



Storm Surge

0.0%

0

-

Critical Infrastructure Exposed:
0.0%



Tropical Cyclone Winds

100.0%

41,656

\$1.7 Billion

Critical Infrastructure Exposed:
100.0%



Wildfire

97.2%

40,470

\$1.7 Billion

Critical Infrastructure Exposed:
99.2%



VULNERABILITY (V)

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.473

Vulnerability in Orange Walk is primarily driven by Information Access Vulnerability and Clean Water Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Environmental Stress SCORE: 0.712 RANK: 3/6 DISTRICTS ASSESSED



17.3%

Tree cover loss

-8.0%

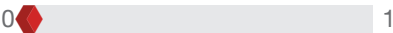
Projected changes in annual precipitation

37.9%

Decline in land productivity



Vulnerable Health Status SCORE: 0.033 RANK: 6/6 DISTRICTS ASSESSED



62.11

TB infections per 10k persons

64.18

Dengue incidence per 100k persons

89.03

Malaria incidence per 100k persons



Clean Water Vulnerability SCORE: 0.751 RANK: 2/6 DISTRICTS ASSESSED



10.42%

Households with unimproved water access

26.04%

Households with unimproved sanitation



Information Access Vulnerability SCORE: 0.826 RANK: 2/6 DISTRICTS ASSESSED



72.6%

Adult literacy

65.7

Primary to secondary school transition rate

27.3%

Working population with no secondary school education

27.3%

Households without radio access

22.7%

Households without television access

91.6%

Households without Internet access



Economic Constraints SCORE: 0.473 RANK: 3/6 DISTRICTS ASSESSED



9.4% Average unemployment (2019)	24.6% Under-employment (2019)	64.1 Economic dependency ratio	15.4% Population in lowest wealth quintile
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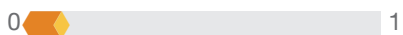
Gender Inequality SCORE: 0.429 RANK: 4/6 DISTRICTS ASSESSED



155.40 Domestic violence cases per 10k persons	0,900 Female economic opportunity score	1 Female economic opportunity rank	1.33 Female to male secondary school transition ratio	0.20 Female to male income ratio	0.52 Female to male labor force participation ratio	0.084 Female healthcare access score
6 Female healthcare access rank	7.9 Infant mortality rate (per 1,000 live births)	97.7 Maternal mortality rate (per 100k live births)	67.0 Adolescent birth rate (per 1,000 women)	15.9% Unmet need for contraception		



Population Pressures SCORE: 0.090 RANK: 6/6 DISTRICTS ASSESSED



1.60% Average annual population change	-0.03% Average annual urban population change	13.00% Prevalence of stunting
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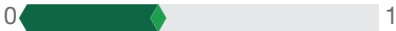
COPING CAPACITY (CC)

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.474

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



Economic Capacity SCORE: 0.381 RANK: 4/6 DISTRICTS ASSESSED



61.2%

Households owning homes

18.4%

Change in active tourism business

\$213.87

Average revenue per room (BZ\$)

\$1,016.05

Median monthly income (BZ\$)

59.92

Labor force participation rate

21.1%

Population in highest wealth quintile



Governance SCORE: 0.551 RANK: 2/6 DISTRICTS ASSESSED



85.6%

Voter participation

33.0%

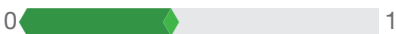
Households with municipal garbage collection

33.11

Crime rate per 10k persons



Environmental Capacity SCORE: 0.418 RANK: 5/6 DISTRICTS ASSESSED



47.3%

Land area with low interannual water variability

48.4%

Percent protected land area



Infrastructure Capacity SCORE: 0.492 RANK: 5/6 DISTRICTS ASSESSED



Health Care Capacity SCORE: 0.455 RANK: 2/6 DISTRICTS ASSESSED

5.80

Health care centers per 10,000 persons

6.09

Physicians per 10,000 persons

13.06

Nurses per 10,000 persons

82.5%

Immunization coverage

19.05

Average distance to hospital (km)

12.41

Hospital beds per 10,000 persons



Transportation Capacity SCORE: 0.309 RANK: 5/6 DISTRICTS ASSESSED

0.4

Road density (km)

9.8

Average distance to port facility (km)



Communications Capacity SCORE: 0.618 RANK: 5/6 DISTRICTS ASSESSED

2.49 Average distance to cell tower (km)	20.7% Households with fixed phone	75.7% Households with mobile phone
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Energy Capacity SCORE: 0.810 RANK: 3/6 DISTRICTS ASSESSED

93.2% Households with electricity	84.9% Households using gas for cooking
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Emergency Services Capacity SCORE: 0.266 RANK: 6/6 DISTRICTS ASSESSED

1,507 Emergency shelter capacity per 10,000 persons	18.8 Average distance to warehouse (km)	3.5 Average distance to emergency shelter (km)	18.8 Average distance to fire station (km)	11.3 Average distance to police station (km)
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RESILIENCE (R)

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.500

Orange Walk's score and ranking are due to Moderate Vulnerability combined with Moderate Coping Capacity scores.

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



Information
Access
Vulnerability



Clean Water Access
Vulnerability



Emergency Service
Capacity



Transportation
Capacity



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 3 / 6 DISTRICTS ASSESSED
SCORE: 0.000



Extreme Heat

RANK: 3 / 6 DISTRICTS ASSESSED
SCORE: 0.164



Flood

RANK: 5 / 6 DISTRICTS ASSESSED
SCORE: 0.020



Landslide

RANK: 4 / 6 DISTRICTS ASSESSED
SCORE: 0.178



Storm Surge

RANK: 5 / 6 DISTRICTS ASSESSED
SCORE: 0.000



Tropical Cyclone Winds

RANK: 5 / 6 DISTRICTS ASSESSED
SCORE: 0.295



Wildfire

RANK: 2 / 6 DISTRICTS ASSESSED
SCORE: 0.376



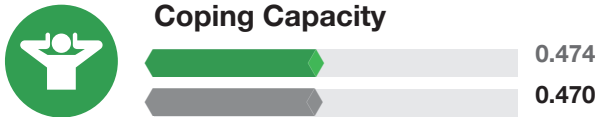
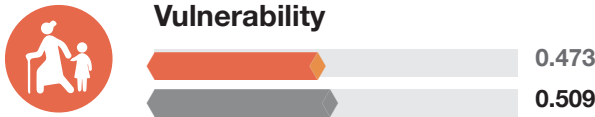
MULTI-HAZARD RISK (MHR)

4 / 6
RANK WITHIN DISTRICTS
SCORE: 0.449



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

Multi-hazard risk component scores compared to overall average country scores: ■ ■ ORANGE WALK SCORE ■ COUNTRY SCORE



ORANGE WALK RECOMMENDATIONS



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the district. Emergency messages presented to the population of Orange Walk must contain clear and simple information to ensure an appropriate response to save lives and reduce losses. Orange Walk ranks the second highest in Belize for Information Access Vulnerability. 92% of homes in Orange Walk do not have internet leaving many to rely on broadband radio and television to receive their information. Orange Walk also show the second largest average distance to a cell phone tower from populated places. Lack of access to information hinders the ability of government agencies to share critical information during disasters.

Increase network infrastructure to increase coverage, accessibility, and reliability of communications for day-to-day use and especially during disasters. Encourage telecommunication infrastructure development at a sustainable pace and alongside more environmentally friendly technology.

Lack of access to information can also be dependent on access to education, healthcare, and other needs. Orange Walk ranks second lowest in adult literacy as well as the working population with no secondary school. It also ranks the lowest for the transition from primary to secondary school. Investing in the continuity and quality of education for the district population will improve the access to and understanding of important emergency messages and empower communities with the knowledge to make better decisions during a disaster.

ORANGE WALK RECOMMENDATIONS

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 Orange Walk improves health outcomes and frees up resources to decrease further susceptibility to impacts.

Corozal ranks second in Belize for Clean Water Access Vulnerability with over ten percent of households lacking access to improved drinking water, the highest in Belize. Lack of access to improved drinking water is linked to the transmission of diseases such as cholera and chronic diseases caused by inadequate drinking water strain medical resources.

Invest in the expansion of piped water and sewer systems to underserved areas, as growing population and climate change will only exacerbate existing vulnerabilities. Ensure that all clean drinking water is easily accessed for all households within a certain distance. Ensure clean drinking water plans are made for disasters.

ORANGE WALK RECOMMENDATIONS

3

Emergency Service Capacity

Orange Walk has the lowest Emergency Services Capacity when compared to the other five districts in Belize and nearly 100% of its critical infrastructure locations are exposed to Wildfire. However, it is an average of over 18 kilometers from any populated area in Orange Walk to the only fire station in the district and over 3.5 kilometers to an emergency shelter, the furthest in the country. Wildfire impacts over 99% of critical infrastructure in the district, making it difficult for first responders to respond or for citizens to travel to safety. Orange Walk has higher-than-average distances to most of its emergency services.

Strengthen emergency service capacity by reducing distance traveled to reach shelters, warehouses and other emergency infrastructure. Expand shelter capacity by designating existing structures located in Orange Walk or investing in new purpose-built shelter locations. Ensure that new shelters can withstand wind or flood impacts annually prior to the start of the Atlantic Hurricane Season. Locate new shelters away from fire-prone areas and use fire safe landscaping and defensible space techniques to protect critical infrastructure. 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.

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ORANGE WALK 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 provincial populations. Improved transportation capacity supports all aspects of Orange Walk's ability to distribute resources before, during, and after a disaster. Orange Walk ranks the second lowest in Transportation Capacity. This is reflected in high distances to ports and airports and a low density of roads per area.

Orange Walk is a large district with many uninhabited areas where roads are scarce, and some infrastructure repairs have been underway since Hurricanes Eta and Iota. However additional investments in the quality and maintenance of existing transportation infrastructure as well as the creation of new roadways will not only alleviate supply chain issues during an emergency but can also improve economic opportunity, tourism and every day goods and services distribution for residents.

**Better solutions.
Fewer disasters.**

Safer world.

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