



TRINIDAD AND TOBAGO

MAYARO-RIO CLARO

NDPBA MUNICIPALITIES PROFILE

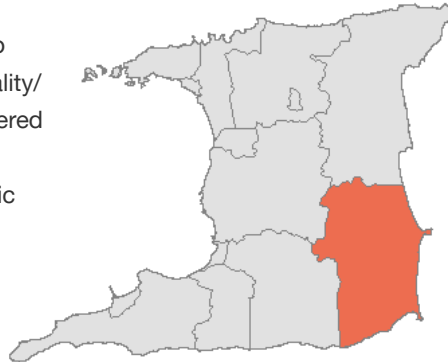
TRINIDAD AND TOBAGO MAYARO-RIO CLARO



CAPITAL: MAYARO

Area: 814 km²

Located in southeast Trinidad, the Municipality of Mayaro-Rio Claro is the second largest and third least populous municipality/ regional corporation in the country. Mayaro-Rio Claro is bordered by Sangre Grande to the north, Couva-Tabaquite-Talparo to the northwest, Princes Town in the southwest, and the Atlantic Ocean to the south and east. Geographic features include portions of the Central Range in the north and the Southern Range in the south, with mostly gently sloping or low-lying areas and mangrove forest along portions of the coast. Land use is predominantly rural and agricultural, with extensive protected areas, including the Nariva Swamp and the Victoria Mayaro Forest Reserve. Primary economic drivers include energy, retail and distribution, personal services, and construction.



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Moderate
Score: 0.478 • Rank: 9/15



RESILIENCE (R) - Very Low
Score: 0.414 • Rank: 15/15



MULTI-HAZARD EXPOSURE (MHE) - Very Low
Score: 0.261 • Rank: 14/15



VULNERABILITY (V) - Very High
Score: 0.621 • Rank: 2/15



COPING CAPACITY (CC) - Low
Score: 0.448 • Rank: 12/15



Population (2011 Census)
35,650



Population in Poverty
26.6%



Population with less than a secondary education
41.0%



Access to improved water
92.5% households



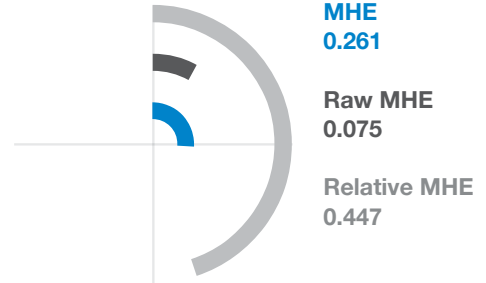
Infant mortality rate (per 1,000 live births)
45

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 14 / 15 MUNICIPALITIES
SCORE: 0.261



ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:

Earthquake

100.0%

37,848
\$1.4 Billion

Flood

82.6%

31,279
\$1.1 Billion

Landslide

45.7%

17,295
\$573.3 Million

Coastal Flood

22.1%

8,377
\$315.9 Million

Tropical Cyclone Winds

100.0%

37,848
\$1.4 Billion

Wildfire

1.1%

413
\$35.2 Million




VULNERABILITY (V)

RANK: 2 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.621

Vulnerability in Mayaro-Rio Claro 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

0  1 **SCORE: 0.521** **RANK: 6/15 MUNICIPALITIES ASSESSED**

0.5% Households affected by deforestation	30% Households affected by drainage issues	17.0% Households affected by flooding	1.39% Households affected by sewage issues	8.8% Households affected by soil erosion	2.0% Households affected by solid waste issues	2.3% Households affected by wastewater issues	1.6% Households affected by water contamination
---	--	---	--	--	--	---	---




Vulnerable Health Status

0  1 **SCORE: 0.454** **RANK: 7/15 MUNICIPALITIES ASSESSED**

22.3% Persons with chronic illness	45.1 Infant mortality rate (per 1k live births)	4.6% Persons with long-standing disability	- Population in collective living quarters	3.09 Chikungunya cases per 10k	0.00 Dengue cases per 10k	0.84 Zika cases per 10k	0.00 Leptospirosis cases per 10k
--	---	--	--	--	-------------------------------------	-----------------------------------	--




Clean Water Vulnerability

0  1 **SCORE: 0.919** **RANK: 1/15 MUNICIPALITIES ASSESSED**

92.5% Households with access to improved water	23.1% Households with inadequate toilet facilities
--	--




Information Access Vulnerability

0  1 **SCORE: 0.959** **RANK: 1/15 MUNICIPALITIES ASSESSED**

41.0% Population with less than secondary education	80.3% Households with no Internet	12.2% Households with no TV	23.8% Households with radio
---	---	---------------------------------------	---------------------------------------




Economic Constraints

0  1 **SCORE: 0.679** **RANK: 4/15 MUNICIPALITIES ASSESSED**

42.8 Age dependency ratio	56.4% Households with no vehicle	13.9% Population with unmet housing need	26.6% Poverty rate
-------------------------------------	--	--	------------------------------



Gender Inequality

0  1 **SCORE: 0.275** **RANK: 12/15 MUNICIPALITIES ASSESSED**

0.74


Female to male labor participants

1.02

Female to male secondary education attainment



Population Pressures

0  1 **SCORE: 0.537** **RANK: 4/15 MUNICIPALITIES ASSESSED**

1.0%

Average annual population change

-31.5

Net migration rate



COPING CAPACITY (CC)

RANK: 12 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.448

Mayaro-Rio Claro exhibits weaker Coping Capacity in the areas of Transportation Capacity and Economic Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



Economic Capacity

0 1 **SCORE: 0.094** **RANK: 15/15 MUNICIPALITIES ASSESSED**

42.0% Labor force participation rate
\$4,594 Annual household income per capita (USD)
0.5 Financial institutions per 10k persons



Governance

0 1 **SCORE: 0.894** **RANK: 1/15 MUNICIPALITIES ASSESSED**

52.6 Serious crimes reported per 10k persons
56.4% Voter participation
2.6% Households with unmet need for refuse collection



Environmental Capacity

0 1 **SCORE: 1.000** **RANK: 1/15 MUNICIPALITIES ASSESSED**

48.3% Protected areas (sq km)



Infrastructure Capacity

0 1 **SCORE: 0.174** **RANK: 15/15 MUNICIPALITIES ASSESSED**



Health Care Capacity

SCORE: 0.144 **RANK: 14/15 MUNICIPALITIES ASSESSED**

1.1 Health care facilities (per 10k persons)
35.0 Average distance to hospital (km)
8.7% Population with private health insurance



Transportation Capacity

SCORE: 0.072 **RANK: 14/15 MUNICIPALITIES ASSESSED**

0.9 Road density (km per sq. km)
21.5 Average distance to nearest port (km)



Communications Capacity

SCORE: 0.263 **RANK: 14/15 MUNICIPALITIES ASSESSED**

84.2% Population using mobile phones
11.9 Mobile and wireless infrastructure (per 10k persons)



Emergency Services Capacity

SCORE: 0.217 **RANK: 15/15 MUNICIPALITIES ASSESSED**

12.7 Average distance to fire station (km)
5.0 Average distance to police station (km)
7.1 Emergency shelters (per 10k persons)



RESILIENCE (R)

RANK: 15 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.414

Mayaro-Rio Claro's score and ranking are due to Very High Vulnerability combined with Low Coping Capacity scores.

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



Information
Access
Vulnerability



Clean Water Access
Vulnerability



Transportation
Capacity



Economic Capacity



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 10 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.312



Coastal Flood

RANK: 2 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.305



Flood

RANK: 14 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.055



Landslide

RANK: 7 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.165



Wildfire

RANK: 12 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.027



Tropical Cyclone Winds

RANK: 10 / 15 MUNICIPALITIES ASSESSED
SCORE: 0.312



MULTI-HAZARD RISK (MHR)

9 / 15

RANK WITHIN MUNICIPALITIES
Score: 0.478



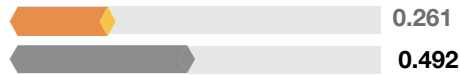
Mayaro-Rio Claro's score and ranking are due to Very Low Multi-hazard Exposure combined with Very High Vulnerability and Low Coping Capacity scores.



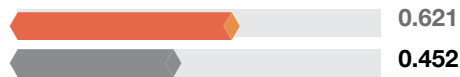
Multi-hazard risk component scores compared to overall average country scores:



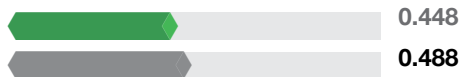
Multi-Hazard Exposure



Vulnerability



Coping Capacity



MAYARO-RIO CLARO RECOMMENDATIONS

1

Information Access Vulnerability

Mayaro-Rio Claro has the highest Information Access Vulnerability in the country. More than 80% of municipal households have no Internet access, and 24% do not have radios. This limits the mechanisms by which the populace can receive hazard alerts and warning information. In addition, just over 40% of the population has less than a secondary level education, which may influence understanding of hazard messaging and delay life-saving actions.

Implement preparedness campaigns that educate communities about exposure to potential hazards and socialize alert and warning procedures and protective actions that can be taken to safeguard lives and property.

Increase the number of mediums through which critical warning information is disseminated to the public, giving special consideration to those with disabilities, those living in squatter settlements, and in rural areas with limited connectivity.

2

Clean Water Access Vulnerability

Mayaro-Rio Claro has the highest vulnerability related to Clean Water Access, with nearly 8% of households lacking Improved Water, and 23% with Inadequate Toilet Facilities. According to the Mayaro-Rio Claro Local Area Economic Profile, the municipality has a limited sewer network, with major challenges in wastewater treatment and management.

Secure investments to strengthen clean water and sanitation infrastructure and improve delivery of water and sanitation services in underserved areas.

Ensure that all new infrastructure installations and expanded services include measures that mitigate against hazard-related impacts such as inland and coastal flooding.

MAYARO-RIO CLARO RECOMMENDATIONS

3

Transportation Capacity

Mayaro-Rio Claro has the 2nd lowest Transportation Capacity score in the country, with the lowest Road Density and 2nd greatest Distance to Port Facility. Per the Mayaro-Rio Claro Local Area Economic Profile, existing road infrastructure is of “low quality” and “inadequate relative to the level of traffic that is now carried.” Roadways in the regional corporation have been damaged by flooding and stormwater, and in some coastal areas are subject to erosion. Limited transportation networks hamper timely evacuations and delay response and recovery activities. Damaged roads, seaports and airports can further postpone delivery and transport of much needed relief supplies and hold up recovery processes. Currently, the average distance to the nearest hospital is over 35 km away, the greatest in the country. Delays in receiving urgent medical care put residents of Mayaro-Rio Claro at greater risk.

Secure investments to expand transportation networks, particularly in underserved areas to meet increasing demand and improve response times and access to emergency services. Explore public-private partnerships to improve the quality of existing transportation infrastructure utilized by the oil and gas sector (e.g., ensure that roadways are designed and built to sustain the weight of heavy vehicles). By bolstering transportation capacity, Mayaro-Rio Claro will have the added benefit of supporting sustainable economic growth through greater accessibility of goods and services.

Protect investments and service provision by implementing mitigation strategies (e.g., improve storm water management) to reduce hazard impacts.

4

Economic Capacity

Mayaro-Rio Claro has the lowest Economic Capacity score of all municipalities/regional corporations in the country, with the 2nd lowest Household Income per Capita (\$4,594), the 3rd lowest Labor Force Participation rate and the 3rd lowest density of Financial Institutions. Other socio-economic indicators show that 27% of the population in Mayaro-Rio Claro are living in poverty, and 14% have an unmet need related to housing. The Local Area Economic Profile confirms the presence of poverty and squatter settlements with poor housing conditions. The energy sector is the major driver of the local and national economy due to the large deposits of natural gas and crude oil situated offshore. Other drivers are agriculture, fishing and fish processing, and micro-to large-scale business enterprises.

Strengthen institutional arrangements between ministries, local government entities and other stakeholders to facilitate economic development in the region. Areas already identified for economic expansion and development include agro-processing and food production, fishing and fish processing operations, financial services, commerce and distribution services. Continue efforts to provide access to vocational, technical and entrepreneurial training programs geared toward labor market needs to increase economic opportunities and household incomes.

Increase development of low-income and affordable housing to reduce spontaneous settlement and assist in meeting the housing needs of the poor. Increase collaboration among social service providers, private sector organizations and NGOs to coordinate poverty reduction efforts and delivery of services. Strengthen social assistance programs that provide benefits for elderly, low income, and single-parent households.

**Better solutions.
Fewer disasters.**

Safer world.

**1305 N Holopono Street
Suite 2, Kihei, HI 96753**

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



@PDC_Global



/PDCGlobal



www.pdc.prg



ndpba@pdc.org