



**TRINIDAD AND TOBAGO**

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# **TUNAPUNA-PIARCO**

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**NDPBA MUNICIPALITIES PROFILE**

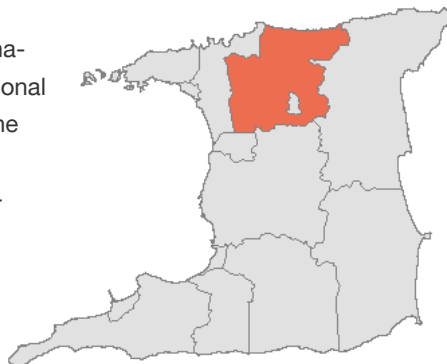
# TRINIDAD AND TOBAGO TUNAPUNA-PIARCO



## CAPITAL: TUNAPUNA

Area: 510 km<sup>2</sup>

Situated in north central Trinidad, the Municipality of Tunapuna-Piarco is the fifth largest and most populous municipality/regional corporation in the country. Tunapuna-Piarco is bordered by the Caribbean Sea to the north, Sangre Grande to the east, the Borough of Chaguanas and Municipality of Couva-Tabaquite-Talparo to the south, and San Juan-Laventille to the east. Tunapuna-Piarco completely encompasses the Borough of Arima. Geographic features include coastline to the north, the Northern Range and foothills, and rivers, floodplains and alluvial flats of the Northern Basin. Land use is predominantly agricultural, including fishing and forestry. Primary economic drivers are retail and distribution, personal services, tertiary education, and tourism.



## RISK AND VULNERABILITY COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Very High**  
Score: 0.623 • Rank: 1/15



**RESILIENCE (R) - High**  
Score: 0.566 • Rank: 5/15



**MULTI-HAZARD EXPOSURE (MHE) - Very High**  
Score: 1.000 • Rank: 1/15



**VULNERABILITY (V) - Very Low**  
Score: 0.365 • Rank: 14/15



**COPING CAPACITY (CC) - High**  
Score: 0.497 • Rank: 6/15



Population (2011 Census)  
**215,119**



Population in Poverty  
**10.5%**



Population with less than a secondary education  
**24.1%**



Access to improved water  
**98.1% households**



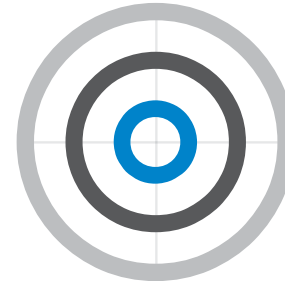
Infant mortality rate (per 1,000 live births)  
**33**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 1 / 15 MUNICIPALITIES  
SCORE: 1.000



MHE  
1.000

Raw MHE  
1

Relative MHE  
1

### ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

**100.0%**  
215,354  
\$11.7 Billion



Flood

**97.8%**  
210,528  
\$11.6 Billion



Landslide

**78.9%**  
169,974  
\$10.3 Billion



Coastal Flood

**10.2%**  
22,051  
\$1 Billion



Tropical Cyclone Winds

**100.0%**  
215,354  
\$11.7 Billion



Wildfire

**44.9%**  
96,717  
\$6.5 Billion




## VULNERABILITY (V)

**RANK: 14 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.365**

Vulnerability in Tunapuna-Piarco is primarily driven by Environmental Stress and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



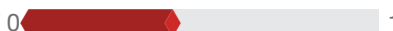
### Environmental Stress

0  1 **SCORE: 0.495** **RANK: 8/15 MUNICIPALITIES ASSESSED**

<b>0.9%</b> Households affected by deforestation	<b>19%</b> Households affected by drainage issues	<b>14.4%</b> Households affected by flooding	<b>2.35%</b> Households affected by sewage issues	<b>2.4%</b> Households affected by soil erosion	<b>2.7%</b> Households affected by solid waste issues	<b>1.4%</b> Households affected by wastewater issues	<b>2.5%</b> Households affected by water contamination
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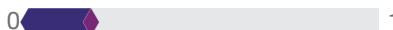
### Vulnerable Health Status

0  1 **SCORE: 0.419** **RANK: 9/15 MUNICIPALITIES ASSESSED**

<b>19.7%</b> Persons with chronic illness	<b>33.4</b> Infant mortality rate (per 1k live births)	<b>3.5%</b> Persons with long-standing disability	<b>1.3%</b> Population in collective living quarters	<b>2.09</b> Chikungunya cases per 10k	<b>0.79</b> Dengue cases per 10k	<b>4.37</b> Zika cases per 10k	<b>0.74</b> Leptospirosis cases per 10k
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### Clean Water Vulnerability

0  1 **SCORE: 0.181** **RANK: 11/15 MUNICIPALITIES ASSESSED**

<b>98.1%</b> Households with access to improved water	<b>7.0%</b> Households with inadequate toilet facilities
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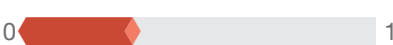
### Information Access Vulnerability

0  1 **SCORE: 0.460** **RANK: 7/15 MUNICIPALITIES ASSESSED**

<b>24.1%</b> Population with less than secondary education	<b>50.6%</b> Households with no Internet	<b>12.3%</b> Households with no TV	<b>20.8%</b> Households with radio
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### Economic Constraints

0  1 **SCORE: 0.310** **RANK: 11/15 MUNICIPALITIES ASSESSED**

<b>40.3</b> Age dependency ratio	<b>48.3%</b> Households with no vehicle	<b>10.7%</b> Population with unmet housing need	<b>10.5%</b> Poverty rate
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### Gender Inequality

0  1 **SCORE: 0.465** **RANK: 9/15 MUNICIPALITIES ASSESSED**

**0.75**

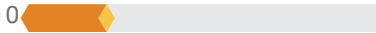
Female to male labor participants

**0.94**

Female to male secondary education attainment



### Population Pressures

0  1 **SCORE: 0.226** **RANK: 13/15 MUNICIPALITIES ASSESSED**

**0.5%**

Average annual population change

**8.5**

Net migration rate



# COPING CAPACITY (CC)

**RANK: 6 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.497**

Tunapuna-Piarco exhibits weaker Coping Capacity in the areas of Economic Capacity and Communications Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



## Economic Capacity

0 1 **SCORE: 0.430** **RANK: 8/15 MUNICIPALITIES ASSESSED**

**43.2%** Labor force participation rate  
**\$6,215** Annual household income per capita (USD)  
**1.8** Financial institutions per 10k persons



## Governance

0 1 **SCORE: 0.661** **RANK: 7/15 MUNICIPALITIES ASSESSED**

**103.2** Serious crimes reported per 10k persons  
**35.3%** Voter participation  
**1.1%** Households with unmet need for refuse collection



## Environmental Capacity

0 1 **SCORE: 0.226** **RANK: 9/15 MUNICIPALITIES ASSESSED**

**10.9%** Protected areas (sq km)



## Infrastructure Capacity

0 1 **SCORE: 0.491** **RANK: 8/15 MUNICIPALITIES ASSESSED**



## Health Care Capacity

**SCORE: 0.496** **RANK: 7/15 MUNICIPALITIES ASSESSED**

**0.4** Health care facilities (per 10k persons)  
**6.3** Average distance to hospital (km)  
**20.4%** Population with private health insurance



## Transportation Capacity

**SCORE: 0.498** **RANK: 10/15 MUNICIPALITIES ASSESSED**

**3.0** Road density (km per sq. km)  
**7.1** Average distance to nearest port (km)



## Communications Capacity

**SCORE: 0.463** **RANK: 9/15 MUNICIPALITIES ASSESSED**

**87.4%** Population using mobile phones  
**7.9** Mobile and wireless infrastructure (per 10k persons)



## Emergency Services Capacity

**SCORE: 0.508** **RANK: 9/15 MUNICIPALITIES ASSESSED**

**3.6** Average distance to fire station (km)  
**1.8** Average distance to police station (km)  
**1.3** Emergency shelters (per 10k persons)



## RESILIENCE (R)

**RANK: 5 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.566**

Tunapuna-Piarco's score and ranking are due to Very Low Vulnerability combined with High Coping Capacity scores.

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



**Environmental Stress**



**Gender Inequality**



**Economic Capacity**



**Communications Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 2 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.434**



**Coastal Flood**

**RANK: 4 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.256**



**Flood**

**RANK: 1 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.424**



**Landslide**

**RANK: 1 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.396**



**Wildfire**

**RANK: 3 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.355**



**Tropical Cyclone Winds**

**RANK: 2 / 15 MUNICIPALITIES ASSESSED**  
**SCORE: 0.434**



## MULTI-HAZARD RISK (MHR)

**1 / 15**

RANK WITHIN MUNICIPALITIES  
Score: 0.623



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



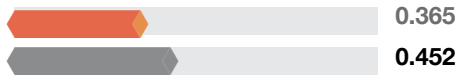
### Multi-hazard risk component scores compared to overall average country scores:



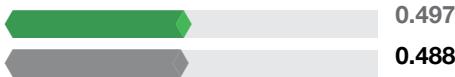
#### Multi-Hazard Exposure



#### Vulnerability



#### Coping Capacity





## TUNAPUNA-PIARCO RECOMMENDATIONS

# 1

### Environmental Stress

Tunapuna-Piarco ranks 8th highest for overall Environmental Stress, with households reporting being affected by multiple environmental issues. Issues related to Deforestation, Sewerage, Solid Waste, and Water Contamination were among the top complaints relative to other municipalities. In addition, nearly 20% of households reported having drainage issues, and nearly 15% are affected by flooding. The municipality has the highest overall ranking for Multi-Hazard Exposure, and due to its geography, flooding and landslides are common. These hazards in particular compound environmental hazards, threatening lives and damaging homes and infrastructure.

Improve the levels of municipal service that collect and responsibly dispose of solid waste while concurrently increasing routine maintenance of drainage systems and culverts to clear debris and drainage channels and improve outflow of storm water.

Launch community campaigns to educate the public about the harm resulting from the indiscriminate dumping of rubbish in waterways and locations other than designated disposal sites. Expand and communicate options for disposal and/or recycling of old vehicles, non-working appliances and hazardous materials to minimize impacts on the environment and reduce random dumping. Strengthen collaboration between social service entities, private sector organizations and NGOs to manage environmental impacts of squatter settlements and deliver needed services.

# 2

### Gender Inequality

Tunapuna-Piarco ranks 9th for overall Gender Inequality, driven primarily by inequities related to Female to Male Secondary Enrollment.

Design and implement intervention strategies to promote and sustain engagement of both male and female students in secondary-level education and reduce dropout rates.

# TUNAPUNA-PIARCO RECOMMENDATIONS

## 3

### Economic Capacity

Tunapuna-Piarco ranks 8th for overall Economic Capacity with the 7th lowest Labor Force Participation rate in the country. The size and diversity of the local economy presents numerous employment options for local residents as well as those in neighboring municipalities.

Increase access to financing and support structures (e.g. microfinance services and loans) for farmers, small business owners and household enterprises to expand production and marketability of goods and produce.

Establish programs that gear education toward labor market needs to promote job creation and employment opportunities for youth and those with lower educational attainment.

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## 4

### Communications Capacity

Tunapuna-Piarco ranks 9th for overall Communications Capacity, 7th for Mobile Phone Use, and 9th for Mobile and Wireless Infrastructure density. In addition, only half of households have access to the Internet.

Increase the quality and delivery of service in the municipality to improve access in remote areas (i.e., communities in mountainous areas).

Improved access to mobile and wireless services will not only support economic endeavors but offer additional methods by which the public can access important hazard alert and warning information, especially by those in rural areas.

**Better solutions.  
Fewer disasters.**

# Safer world.

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