TRINIDAD AND TOBAGO

HEALTH & CLIMATE CHANGE

COUNTRY PROFILE 2020

Small Island Developing States Initiative

World Health Organization

United Nations Framework Convention on Climate Change

Pan American Health Organization / World Health Organization Americas PAHO

CONTENTS

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"Many of the public health gains we have made in recent decades are at risk due to the direct and indirect impacts of climate variability and climate change."

EXECUTIVE SUMMARY

Despite producing very little greenhouse gas emissions that cause climate change, people living in small island developing States (SIDS) are on the frontline of climate change impacts. These countries face a range of acute to long-term risks, including extreme weather events such as floods, droughts and cyclones, increased average temperatures and rising sea levels. Many of these countries already have a high burden of climate-sensitive diseases that may be exacerbated by climate change. Some of the nations at greatest risk are under-resourced and unprotected in the face of escalating climate and pollution threats. In recent years, the voice of the small island nation leaders has become a force in raising the alarm for urgent global action to safeguard populations everywhere, particularly those whose very existence are under threat.

Recognizing the unique and immediate threats faced by small islands, WHO has responded by introducing the WHO Special Initiative on Climate Change and Health in Small Island Developing States (SIDS). The initiative was launched in November 2017 in collaboration with the United Nations Framework Convention on Climate Change (UNFCCC) and the Fijian Presidency of the 23rd Conference of the Parties (COP23) to the UNFCCC, held in Bonn, Germany. The vision being that by 2030 all health systems in SIDS would be resilient to climate variability and climate change. It is clear, however, that in order to protect the most vulnerable from climate risks and to gain the health co-benefits of mitigation policies, building resilience must happen in parallel with the reduction of carbon emissions by countries around the world.

The WHO Special Initiative on Climate Change and Health in SIDS aims to provide national health authorities in SIDS with the political, technical and financial support required to better understand and address the effects of climate change on health.

A global action plan has been developed by WHO that outlines four pillars of action for achieving the vision of the initiative: empowerment of health leaders to engage nationally and internationally; evidence to build the investment case; implementation to strengthen climate resilience; and resources to facilitate access to climate finance. In October 2018, ministers of health gathered in Grenada to develop a Caribbean Action Plan to outline the implementation of the SIDS initiative locally and to identify national and regional indicators of progress.

As part of the regional action plan, small island nations have committed to developing a WHO UNFCCC health and climate change country profile to present evidence and monitor progress on health and climate change.

This WHO UNFCCC health and climate change country profile for Trinidad and Tobago provides a summary of available evidence on climate hazards, health vulnerabilities, health impacts and progress to date in health sector efforts to realize a climate-resilient health system.

KEY RECOMMENDATIONS

1 DEVELOP A CLIMATE CHANGE AND HEALTH STRATEGIC ACTION PLAN FOR TRINIDAD AND TOBAGO

A climate change and health strategic action plan would help Trinidad and Tobago reduce its vulnerability to climate change. This action plan should account for health co-benefits and identify health adaptation priorities.

2 PROMOTE EVIDENCE-BASED DECISION-MAKING

A national assessment of climate change impacts, vulnerability and adaptation for health has been conducted. Ensure that results of the assessment are used for policy prioritization and the allocation of human and financial resources in the health sector.

3 ADDRESS BARRIERS TO ACCESSING INTERNATIONAL CLIMATE CHANGE FINANCE TO SUPPORT HEALTH ADAPTATION

The main barriers have been identified as the scarcity of information on related opportunities and a lack of country eligibility.

4 BUILD CLIMATE-RESILIENT HEALTH CARE FACILITIES

Measures can be taken to prevent the potentially devastating impacts of climate change on health service provision, including: conducting hazard assessments; climate-informed planning and costing; strengthening structural safety; contingency planning for essential systems (e.g. electricity, heating, cooling, ventilation, water supply, sanitation services, waste management and communications). A commitment towards low-emission, sustainable practices to improve system stability, promote a healing environment and to mitigate climate change impacts can also be taken.

5 IMPROVE EFFICIENCY AND PERFORMANCE THROUGH CAPACITY-BUILDING

To have effective management of the scope of climate change impacts, it is necessary to have capacity-building and the expansion of both infrastructural and human resources. This can be achieved though the implementation of 'smart'[a] hospitals, which channel efficiency by having improved emergency care particularly in cases of natural disasters. Provision of staff training specific to the management of climate change hazards can further supplement the success of treatment outcomes at these facilities.

WHO RESOURCES TO SUPPORT ACTION ON THESE KEY RECOMMENDATIONS:
https://www.who.int/activities/building-capacity-on-climate-change-human-health/toolkit/

[a] The Smart Hospital initiative builds on the Safe Hospital Initiative and focuses on improving hospitals resilience, strengthening structural and operational aspects and providing green technologies. Energy improvements include solar panels installations, electric storage batteries and low-consumption electrical systems, which, in addition to reducing energy consumption, reduce health sector carbon footprint in the environment and provide the hospital with energy autonomy, allowing it to continue running during emergencies and disasters.

BACKGROUND

Trinidad and Tobago is a Caribbean nation, located between the Caribbean Sea and Atlantic Ocean. Over 95% of the population lives on Trinidad, the larger of the two islands. Trinidad and Tobago has two distinct seasons: a dry, tropical maritime season (January to May) and a moist equatorial season (June to December). Most precipitation occurs during the moist equatorial climatic season *(1)*. The island is relatively low-lying, with the highest peak reaching 83m above sea level. Trinidad and Tobago's economy is largely dependent upon energy production; oil and gas make up approximately 40% of the country's GDP and 80% of its exports *(2)*.

As a low-lying SIDS, Trinidad and Tobago is vulnerable to climatic changes, particularly sea level rise. Other risks posed by climate change include increasing temperature, extreme weather events, and changing precipitation patterns. For human health specifically, threats include food and water insecurity, spread of water and vector-borne diseases, population displacement and heat stress.

The Government of Trinidad and Tobago has plans to reduce greenhouse gas emissions and implement adaptations though a pathways approach that assesses climate risks manifested by climatic variability, climatic extremes and long-term change. Trinidad and Tobago's Nationally Determined Contribution (NDC) highlights the importance of health co-benefits that will result from climate resilience, including decreasing greenhouse gas emissions and reducing vulnerability to climate change across sectors *(3)*. Furthermore, its Vulnerability and Capacity Assessment (VCA) Report assessed current and future direct and indirect health risks, vulnerability, and recommended adaptation measures *(4)*.

HIGHEST PRIORITY CLIMATE-SENSITIVE HEALTH RISKS FOR TRINIDAD AND TOBAGO

Direct effects	
Health impacts of extreme weather events	✓
Heat-related illness	
Indirect effects	
Water security and safety (including waterborne diseases)	✓
Food security and safety (including malnutrition and foodborne diseases)	✓
Vector-borne diseases	✓
Air pollution	
Allergies	✓
Diffuse effects	
Mental/psychosocial health	
Noncommunicable diseases	
Mitigation actions to reduce emissions through sustainable procurement	
Mitigation measures to reduce emissions of health facilities	
Mitigation measures by coordinating with other sectors	✓

Source: Adapted and updated from the PAHO *Health and Climate Country Survey 2017 (5).*

CLIMATE HAZARDS RELEVANT FOR HEALTH

Climate hazard projections for Trinidad and Tobago

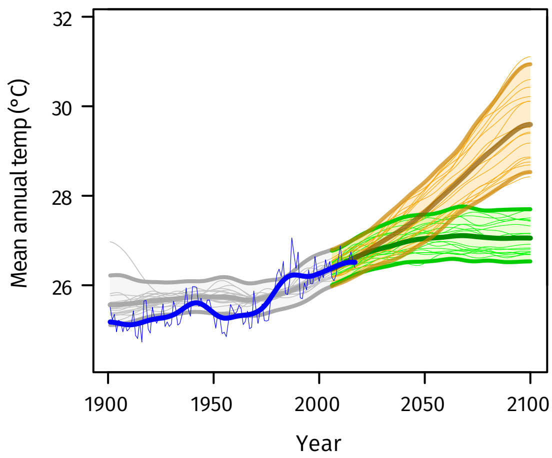
Country-specific projections are outlined up to the year 2100 for climate hazards under a 'business as usual' high emissions scenario compared to projections under a 'two-degree' scenario with rapidly decreasing global emissions (see Figures 1–5).

The climate model projections given below present climate hazards under a high emissions scenario, Representative Concentration Pathway 8.5 (RCP8.5 – in orange) and a low emissions scenario (RCP2.6 – in green).[a] The text describes the projected changes averaged across about 20 global climate models (thick line). The figures[b] also show each model individually as well as the 90% model range (shaded) as a measure of uncertainty and the annual and smoothed observed record (in blue).[c] In the following text the present-day baseline refers to the 30-year average for 1981–2010 and the end-of-century refers to the 30-year average for 2071–2100.

Modelling uncertainties associated with the relatively coarse spatial scale of the models compared with that of small island States are not explicitly represented. There are also issues associated with the availability and representativeness of observed data for such locations.

Rising temperature

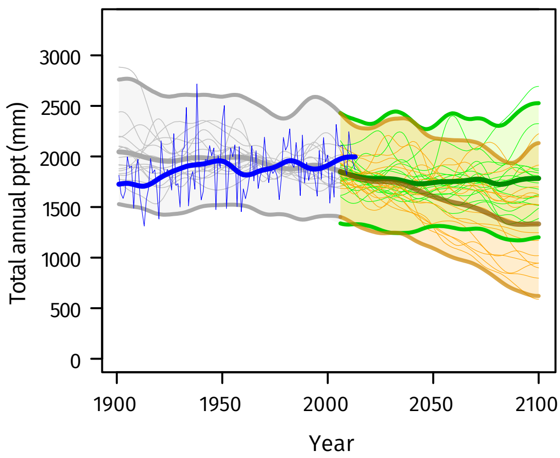
FIGURE 1: Mean annual temperature, 1900–2100



Under a high emissions scenario, the mean annual temperature is projected to rise by about 3.1°C on average by the end-of-century (i.e. 2071–2100 compared with 1981–2010). If emissions decrease rapidly, the temperature rise is limited to about 1.0°C.

Small decrease in total precipitation

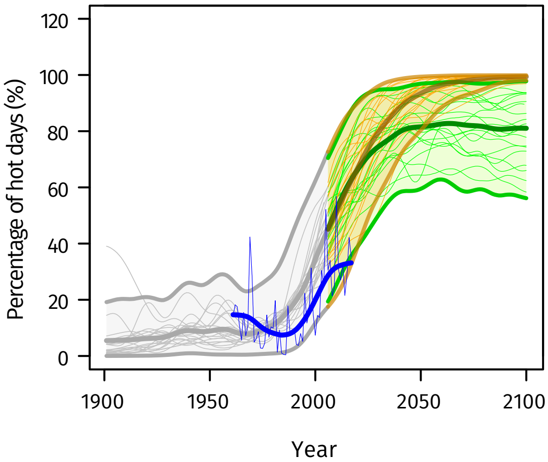
FIGURE 2: Total annual precipitation, 1900–2100



Total annual precipitation is projected to decrease by about 27% on average under a high emissions scenario, although the uncertainty range is large (-53% to +3%). If emissions decrease rapidly there is little projected change on average: a decrease of 6% with an uncertainty range of -23% to +7%.

More high temperature extremes

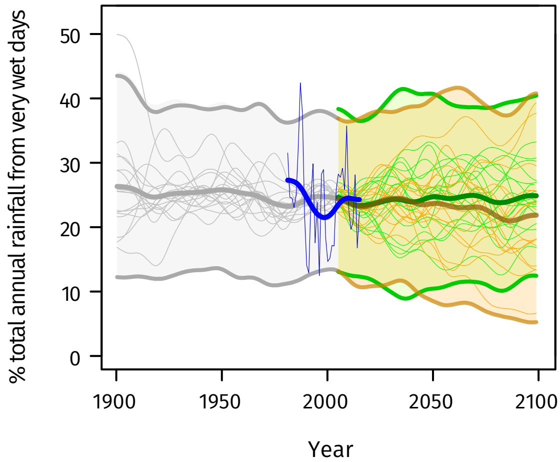
FIGURE 3: Percentage of hot days ('heat stress'), 1900–2100



The percentage of hot days[d] is projected to increase substantially from about 15% of all observed days on average in 1981–2010 (10% in 1961–1990). Under a high emissions scenario, almost 100% of days on average are defined as 'hot' by the end-of-century. If emissions decrease rapidly, about 80% of days on average are 'hot'. Note that the models overestimate the observed increase in hot days (about 28% of days on average in 1981–2010 rather than 15%). Similar increases are seen in hot nights[d] (not shown).

Little change in extreme rainfall

FIGURE 4: Contribution of very wet days ('extreme rainfall' and 'flood risk') to total annual rainfall, 1900–2100

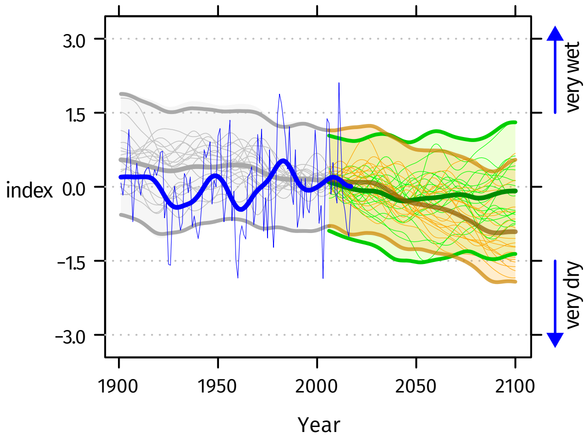


The proportion of total annual rainfall from very wet days[e] (about 25% for 1981–2010) shows little change on average by the end-of-century, although the uncertainty range is larger (about 5% to 40% under a high emissions scenario). Total annual rainfall is projected to decrease (see Figure 2).

FIGURE 5: Standardized Precipitation Index ('drought'), 1900–2100

The Standardized Precipitation Index (SPI) is a widely used drought index which expresses rainfall deficits/excesses over timescales ranging from 1 to 36 months (here 12 months, i.e. SPI12).[f] It shows how at the same time extremely dry and extremely wet conditions, relative to the average local conditions, change in frequency and/or intensity.

Under a high emissions scenario, SPI12 values are projected to decrease to about -0.8 on average by the end of the century (2071–2100), with a number of models indicating substantially larger decreases and hence more frequent and/or intense drought. Year-to-year variability remains large with wet episodes continuing to occur into the future.



NOTES

[a] Model projections are from CMIP5 for RCP8.5 (high emissions) and RCP2.6 (low emissions). Model anomalies are added to the historical mean and smoothed.

[b] Analysis by the Climatic Research Unit, University of East Anglia, 2018.

[c] Observed historical record of mean temperature is from CRU-TSv3.26 and total precipitation is from GPCC. Observed historical records of extremes are from JRA55 for temperature and from GPCC-FDD for precipitation.

[d] A 'hot day' ('hot night') is a day when maximum (minimum) temperature exceeds the 90th percentile threshold for that time of the year.

[e] The proportion (%) of annual rainfall totals that falls during very wet days, defined as days that are at least as wet as the historically 5% wettest of all days.

[f] SPI is unitless but can be used to categorise different severities of drought (wet): +0.5 to -0.5 near normal conditions; -0.5 to -1.0 slight drought; -1.0 to -1.5 moderate drought; -1.5 to -2.0 severe drought; below -2.0 extreme drought.

Tropical cyclones

Information and understanding about tropical cyclones (including hurricane and typhoons) from observations, theory and climate models has improved in the past few years *(6–13)*. Despite this, robust projections for specific ocean basins or for changes in storm tracks are difficult.

It is anticipated that the total number of tropical cyclones may decrease towards the end of the century. However, it is likely that human-induced warming will make cyclones more intense (an increase in wind speed of 2–11% for a mid-range scenario (i.e. RCP4.5 which lies between RCP2.6 and RCP8.5 – shown on pages 4/5) or about 5% for 2˚C global warming). Projections suggest that the most intense events (category 4 and 5) will become more frequent (although such projections are particularly sensitive to the spatial resolution of the models). It is also likely that average precipitation rates within 100 km of the storm centre will increase – by a maximum of about 10% per degree of warming. Such increases in rainfall rate would be exacerbated if tropical cyclone translation speeds continue to slow.

A synthesis of the expected changes at the global scale is presented below.

POTENTIAL FUTURE CHANGES IN TROPICAL CYCLONES: A GLOBAL PERSPECTIVE *(6–13)*

Sea level rise

Sea level rise is one of the most significant threats to low-lying areas on small islands and atolls. Research indicates that rates of global mean sea level rise are almost certainly accelerating as a result of climate change. The relatively long response times to global warming mean that sea level will continue to rise for a considerable time after any reduction in emissions.

1.7 mm/year (±1.3)

Average change in Caribbean sea level over the period 1993–2010 *(14)*

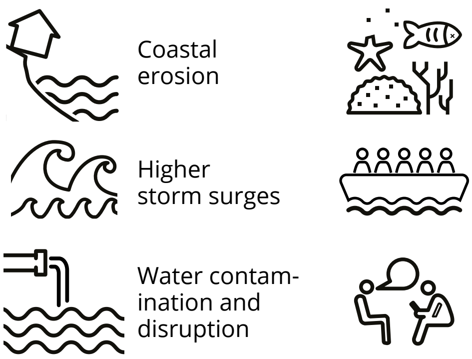
with substantial spatial variability across the region

0.5–0.6 m

Further rise in the Caribbean by the end of the century *(15)*[a]

with variation amongst models and emissions scenarios

Impacts of sea level rise include



[a] Estimates of mean net regional sea level change were evaluated from 21 CMIP5 models and include regional non-scenario components (adapted from WGI AR5 Figure 13-20). The range given is for RCP4.5 annual projected change for 2081–2100 compared to 1986–2005.

Heat stress

Climate change is expected to increase the mean annual temperature and the intensity and frequency of heat waves, resulting in a greater number of people at risk of heat-related medical conditions. Heat waves, i.e. prolonged periods of excessive heat, can pose a particular threat to human, animal and even plant health, resulting in loss of life, livelihoods, socioeconomic output, reduced labour productivity, rising demand for and cost of cooling options, as well as contribute to the deterioration of environmental determinants of health (e.g. air quality, soil, water supply).

Heat stress impacts include:

- heat rash/heat cramps
- dehydration
- heat exhaustion/heat stroke
- death.

Particularly vulnerable groups are:

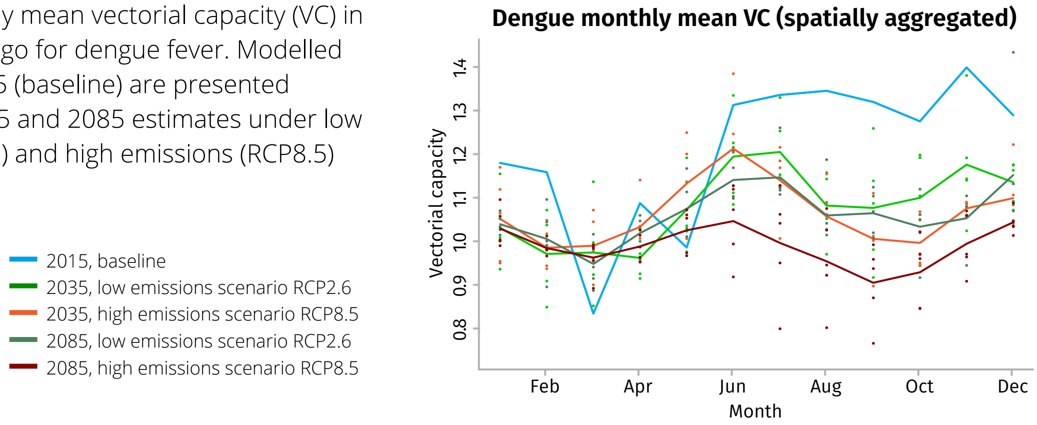
- the elderly
- children
- individuals with pre-existing conditions (e.g. diabetes)
- the socially isolated.

Infectious and vector-borne diseases

Some of the world's most virulent infections are also highly sensitive to climate: temperature, precipitation and humidity have a strong influence on the life-cycles of the vectors and the infectious agents they carry, and influence the transmission of water- and foodborne diseases *(16,17)*.

Small island developing States (SIDS) are vulnerable to disease outbreaks. Climate change could affect the seasonality of such outbreaks, as well as the transmission of vector-borne diseases. Figure 6 presents modelled estimates for Trinidad and Tobago of the potential risk of dengue fever transmission under high and low emission scenarios.[a] The seasonality and prevalence of dengue transmission may change with future climate change, but Trinidad and Tobago is consistently highly suitable for dengue transmission under all scenarios and thus vulnerable to outbreaks *(18–21)*.[b,c]

FIGURE 6: Monthly mean vectorial capacity (VC) in Trinidad and Tobago for dengue fever. Modelled estimates for 2015 (baseline) are presented together with 2035 and 2085 estimates under low emissions (RCP2.6) and high emissions (RCP8.5) scenarios



[a] A suite of mathematical models was systematically developed, then applied and interpreted by a team of researchers at Umeå University (Sweden) to assess the potential for mosquito-borne disease outbreaks (e.g. dengue, chikungunya, Zika and malaria) in terms of climate-dependent VC. The baseline year is 2015, Climatic Research Unit CRU-TSv4.01. Future projections are represented for two emissions futures (Representative Concentration Pathways: RCP2.6, RCP8.5), five climate change projections (Global Climate Models: gfdlesm2m, hadgem2-es, ipsl-cm5a-lr, miroc-esm-chem, noresm1-m). (2018) Umeå University, Sweden.

[b] Given the climate dependence of transmission cycles of many vector-borne diseases, seasonality of epidemic risk is common; however, many SIDS, due to tropical latitudes, tend to have less seasonality than more temperate areas.

[c] The actual occurrences/severity of epidemics would be quite different for each disease in each setting and could depend greatly on vector- and host-related transmission dynamics, prevention, surveillance and response capacities that are not captured in this model.

Noncommunicable diseases, food and nutrition security

Small island developing States (SIDS) face distinct challenges that render them particularly vulnerable to the impacts of climate change on food and nutrition security including: small, and widely dispersed, land masses and populations; large rural populations; fragile natural environments and lack of arable land; high vulnerability to climate change, external economic shocks, and natural disasters; high dependence on food imports; dependence on a limited number of economic sectors; and distance from global markets. The majority of SIDS also face a 'triple-burden' of malnutrition whereby undernutrition, micronutrient deficiencies and overweight and obesity exist simultaneously within a population, alongside increasing rates of diet-related noncommunicable diseases.

Climate change is likely to exacerbate the triple-burden of malnutrition as well as the metabolic and lifestyle risk factors for diet-related noncommunicable diseases. It is expected to reduce short- and long-term food and nutrition security both directly, through its effects on agriculture and fisheries, and indirectly, by contributing to underlying risk factors such as water insecurity, dependency on imported foods, urbanization and migration, and health service disruption. These impacts represent a significant health risk for SIDS, with their particular susceptibility to climate change impacts and already over-burdened health systems, and this risk is distributed unevenly, with some population groups experiencing greater vulnerability.

NONCOMMUNICABLE DISEASES IN TRINIDAD AND TOBAGO

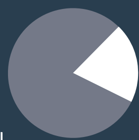
63.3

Healthy life expectancy (2016) *(22)*

4.9%

Adult population considered **undernourished** (2015–2017, 3 year average) *(23)*

19.7%

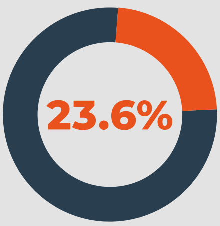


Adult population considered **obese** (2016) *(24)*

12.5%

Prevalence of **diabetes** in the adult population (2014) *(25)*

MOTHER AND CHILD HEALTH



Iron deficiency anaemia in women of repro-ductive age (2016) *(26)*

Wasting in children under five years of age (N/A) *(27)*

Stunting in children under five years of age (N/A) *(27)*

Overweight in children under five years of age (N/A) *(27)*

HEALTH VULNERABILITY AND ADAPTIVE CAPACITY

SDG indicators related to health and climate change

Many of the public health gains that have been made in recent decades are at risk due to the direct and indirect impacts of climate variability and climate change. Achieving Sustainable Development Goals (SDGs) across sectors can strengthen health resilience to climate change.

1. NO POVERTY

Proportion of population living below the poverty line *(28)*

N/A

3. GOOD HEALTH AND WELL-BEING

74

Universal Health Coverage Service Coverage Index (2017)[a] *(29)*

6.5%

Current health expenditure as percentage of gross domestic product (GDP) (2016)[b] *(30)*

26.1

Under-five mortality rate (per 1000 live births) (2017) *(31)*

6. CLEAN WATER AND SANITATION

Proportion of total population using **at least basic drinking-water services** (2017)[c] *(32)*

98%

Proportion of total population using **at least basic sanitation services** (2017)[c] *(32)*

93%

13. CLIMATE ACTION

Total number of weather-related disasters recorded between 2000 and 2018[d] *(33)*

5

Highest total number of persons affected by a single weather-related disaster between 2000 and 2018[d] *(33)*

150 000

a The index is based on low data availability. Values greater than or equal to 80 are presented as ≥80 as the index does not provide fine resolution at high values; 80 should not be considered a target.

b This indicator is not an SDG indicator.

c Data for safely managed drinking-water and sanitation services are not consistently available for all SIDS at this time, therefore 'at least basic services' has been given for comparability. In Antigua and Barbuda, basic drinking-water and sanitation services are widely available, but periodic water outages affect most people. Therefore many people collect rain water.

d Data for SDG13.1 are currently not available. Alternative indicators and data sources are presented.

Health workforce

Public health and health care professionals require training and capacity building to have the knowledge and tools necessary to build climate resilient health systems. This includes an understanding of climate risks to individuals, communities and health care facilities and approaches to protect and promote health given the current and projected impacts of climate change.

HUMAN RESOURCE CAPACITY (2018)

20%

International Health Regulations (IHR) Monitoring Framework Human Resources Core Capacity *(34)*

No

"Does your human resource capacity as measured through the IHR adequately consider the human resource requirements to respond to climate-related events?" *(35)*

No

"Is there a national curriculum developed to train health personnel on the health impacts of climate change?" *(35)*

HEALTH WORKFORCE (PER 10 000 POPULATION, 2015) *(36)*

26.7
Medical doctors

35.1
Nurses and midwives

N/A
Environmental health workers

While there are no specific WHO recommendations on national health workforce densities, the 'Workload Indicators of Staffing Need' (WISN) is a human resource management tool that can be used to provide insights into staffing needs and decision making. Additionally, the National Health Workforce Accounts (NHWA) is a system by which countries can progressively improve the availability, quality and use of health workforce data through monitoring of a set of indicators to support achievement of universal health coverage (UHC), SDGs and other health objectives. The purpose of the NHWA is to facilitate the standardization and interoperability of health workforce information. More details about these two resources can be found at: https://www.who.int/activities/improving-health-workforce-data-and-evidence.

Health care facilities

Climate change poses a serious threat to the functioning of health care facilities. Extreme weather events increase the demand for emergency health services but can also damage health care facility infrastructure and disrupt the provision of services. Increased risks of climate-sensitive diseases will require greater capacity from often already strained health services. In small island developing states, health care facilities are often in low-lying areas, subject to flooding and storm surges making them particularly vulnerable.

105
Health centres
(per 1.3 million population) *(37)*

23
Hospitals
(9 public and 14 private, per 1.3 million population) *(37)*

11
Assessed SMART health facilities *(37)*[a]

0
Designated SMART health facilities *(37)*[a]

[a] See SMART Hospitals Toolkit – Health care facilities are smart when they link their structural and operational safety with green interventions, at a reasonable cost-to-benefit ratio. https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1742:smart-hospitals-toolkit&Itemid=1248&lang=en

HEALTH SECTOR RESPONSE: MEASURING PROGRESS

The following section measures progress in the health sector in responding to climate threats based on country reported data collected in the 2017/2018 WHO Health and Climate Country Survey *(35)*. Key indicators are aligned with those identified in the Caribbean Action Plan.

Empowerment: Supporting health leadership

National planning for health and climate change

Has a national health and climate change strategy or plan been developed?[a] NO	
Title: N/A Year: N/A	
Content and comprehensiveness	
Are health adaptation priorities identified in the strategy/plan?	N/A
Are the health co-benefits of mitigation action considered in the strategy/plan?	N/A
Performance indicators are specified	N/A
Does the strategy/plan outline budgetary requirements?	N/A

✔=yes, ✖=no, O=unknown, N/A=not applicable

a In this context, a national strategy or plan is a broad term that includes national health and climate strategies as well as the health component of national adaptation plans (H-NAPs).

Intersectoral collaboration to address climate change

Is there an agreement in place between the ministry of health and other sectors in relation to health and climate change policy?[b]

Sector	Agreement in place
Transportation	✖
Electricity generation	✖
Household energy	✖
Agriculture	✖
Social services	✖
Water, Sanitation and wastewater management	✖

b Specific roles and responsibilities between the national health authority and the sector indicated are defined in the agreement.

National progress

To date, the analysis of the climate risks to the health sector of Trinidad and Tobago has been conducted and is to be followed by a more detailed vulnerability study that is currently under development. This subsequent study aims to build upon previously collated data and provide a deeper analysis of current climate threats as it relates to the health care system. The purposes of these assessments are to feed into a strategy that serves to build climate resiliency across multiple sectors and is also inclusive of an assessment of cross-sectoral synergy. Development of the strategy would primarily occur through consultation with all relevant stakeholders in the health sector. The expected outcome is the development of a pathways approach to addressing the climate change risks by the building of resiliency in the short and medium term, while simultaneously adapting to the long-term climate impacts. Accordingly, policy development would allow for preventative and mitigation efforts to be implemented at a national level.

Evidence: Building the investment case

Vulnerability and adaptation assessments for health

Has an assessment of health vulnerability and impacts of climate change been conducted at the national level?	✔

TITLE: Vulnerability and Capacity Assessment (VCA) Report: Trinidad and Tobago (2019)

Have the results of the assessment been used for policy prioritization or the allocation of human and financial resources to address the health risks of climate change?

Policy prioritization

Human and financial resource allocation

UNKNOWN

None | Minimal | Somewhat | Strong

Level of influence of assessment results

Implementation: Preparedness for climate risks

Integrated risk monitoring and early warning

Climate-sensitive diseases and health outcomes	Monitoring system in place[a]	Monitoring system includes meteorological information[b]	Early warning and prevention strategies in place to reach affected population
Thermal stress (e.g. heat waves)	✔	✔	✔
Vector-borne diseases	✔	✔	✔
Foodborne diseases	✔	✔	✔
Waterborne diseases	✔	✔	✔
Nutrition (e.g. malnutrition associated with extreme climatic events)	O	O	O
Injuries (e.g. physical injuries or drowning in extreme weather events)	O	O	O
Mental health and well-being	O	O	O
Airborne and respiratory diseases	✔	✔	✔

✔=yes, ✘=no, O=unknown, N/A=not applicable

a A positive response indicates that the monitoring system is in place, it will identify changing health risks or impacts AND it will trigger early action

b Meteorological information refers to either short-term weather information, seasonal climate information OR long-term climate information.

Emergency preparedness

Climate hazard	Early warning system in place	Health sector response plan in place	Health sector response plan includes meteorological information
Heat waves	✔	✔	✔
Storms (e.g. hurricanes, monsoons, typhoons)	✔	✔	✔
Flooding	✔	✔	✔
Drought	✔	✔	✔

✔=yes, ✗=no, O=unknown, N/A=not applicable

Resources: Facilitating access to climate and health finance

International climate finance

Are international funds to support climate change and health work currently being accessed?	✔

If yes, from which sources?

- ☐ Green Climate Fund (GCF)
- ☑ Global Environment Facility (GEF)
- ☐ Other multilateral donors
- ☐ Bilateral donors
- ☑ Other: *European Union – SMART Health Facility Project*

Funding challenges

Greatest challenges faced in accessing international funds

Lack of information on the opportunities	✔	Lack of country eligibility	✔
Lack of connection by health actors with climate change processes		Lack of capacity to prepare country proposals	
Lack of success in submitted applications		None (no challenges/challenges were minimal)	
Other (please specify):		Not applicable	

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