

Suriname's experience with official statistics for managing climate change- related hazards



SURINAME

Name: Mrs. Anjali De Abreu-Kisoensingh
Institute: General Bureau of Statistics (GBS)

Country: Suriname

Date: 08-06-2021

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1a. Experience with Climate Change (CC) indicators/statistics

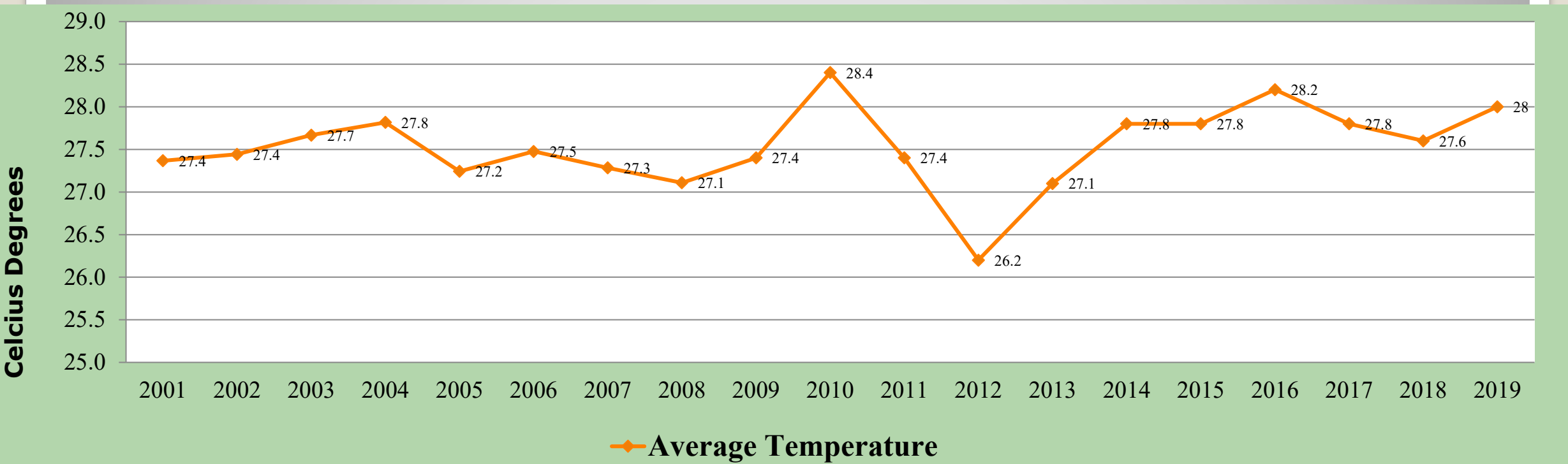
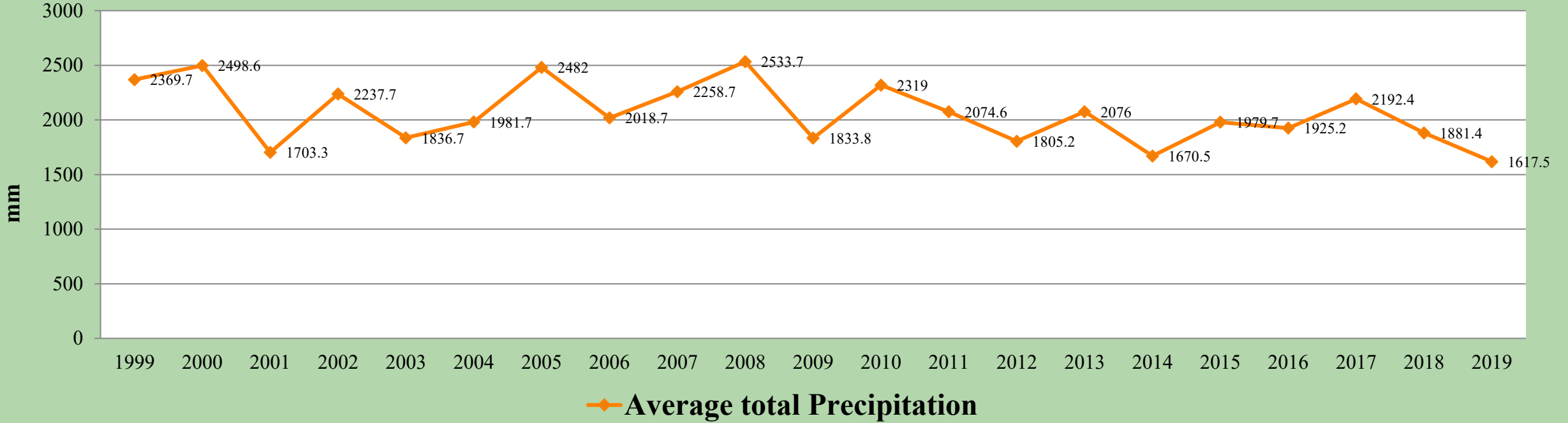
- In 2017, Suriname was introduced to the first set of the UNSD draft Climate Change indicators at the 4th Expert Group Meeting on Environment Statistics (EGES).
- Suriname contributed to the revision of the UNSD draft Global Set of Climate Change Statistics and Indicators, and is also participating in the Global Consultation of the draft Global Set that was sent to the NSOs to be completed by the end of July. The draft Global Set contains several indicators/statistics related to disasters.
- Although, the 2008 available GHG data of Suriname is outdated, Suriname is busy preparing for the **third National Communication**, where GBS had already provided data to the local consultants.

1b. Disaster related indicators in the global CC framework

Area	Topic	Indicator	Statistics	National Data Sources
IMPACTS				
		Hazardous events and disasters		
		31	Frequency of hazardous events and disasters	
			Occurrence of hazardous events and disasters (FDES 4.1.1.a)	Disaster agency/Ministry responsible for Disaster coordinat
			Occurrence of extremes of temperatures and precipitation (UN-ECE 23)	Meteorological office
		32	Direct economic loss attributed to disasters in relation to global gross domestic product (GDP) (SDG 11.5.2)	
			Economic losses due to natural extreme events and disasters (e.g., damage to buildings, transportation networks, loss of revenue for businesses, utility disruption) (FDES 4.1.2.b)	Disaster agency/Ministry responsible for Disaster coordinat
			Occurrence of hazardous events and disasters (FDES 4.1.1.a)	Disaster agency/Ministry responsible for Disaster coordinat
			GDP	NSO
		33	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG 11.5.1)	
			Number of directly affected persons (FDES 4.1.2.a.4)	Disaster preparedness or risk agency/Ministry responsible f
			Number of missing persons	Disaster preparedness or risk agency/Ministry responsible f
			Number of deaths (FDES 4.1.2.a.1)	Disaster preparedness or risk agency/Ministry responsible f
			Occurrence of hazardous events and disasters (FDES 4.1.1.a)	Disaster agency/Ministry responsible for Disaster coordinat
			Population	NSO
		34	Climate refugees, migrant and displaced persons by climate change associated disasters	Disaster preparedness or risk agency
			Number of people whose destroyed dwellings were attributed to hydro-meteorological disasters (UN-ECE 25)	Ministry responsible for Disaster coordination

2a. Suriname's data on Precipitation & Temperature

- The climate of Suriname is tropical with abundant rainfall, more or less uniform temperature, and high humidity. Suriname has two wet and two dry seasons. Most of the precipitation is measured during the rainy season(s) and the Inter Tropical Convergence Zone (ITCZ) is responsible for precipitation.
- The months with the lowest amount of precipitation are September and October and the months with the highest amount of precipitation are May and June. In 2019 the average yearly precipitation was 1,617.5 mm.
- The average temperatures in the morning are between 21°C and 24°C and around noon are between 31°C and 34 °C.



2b. Suriname's Weather Events

- Although Suriname lies completely outside the hurricane zone, the aftermath of the hurricanes that proliferate in the Caribbean are often experienced in the form of heavy rainfall. Suriname does have disasters, but until now they have remained relatively limited, without large numbers of casualties. These include the 2004 drought in the interior, where villages could no longer be reached via the river and had to get food aid, the floods of 2006 and 2008 in the interior, then in the coastal plain, and the gusts that regularly plague Suriname in recent years.
- The coastal plain is vulnerable to sea level rise. Paramaribo is approximately between 0 and 3 m above sea level and is on the list of vulnerable countries with low-lying coastal plains which are threatened by sea level rise in this century (UNDP)

Population in Suriname Affected by a Disaster due to Extreme Weather per 100,000 population, 2015-2019

<i>Year</i>	<i>Type Disaster</i>	<i>Dead</i> A_2	<i>Injured</i> A_3	<i>Affected</i> B_1	$A_2 + A_3 + B_1$	<i>Estimated Population</i>	<i>Ratio per 100,000 people</i>
2015	<i>Floods and storm with heavy winds</i>	1	3	790	794	567,291	139.96
2016	<i>Floods and storm with heavy winds</i>	-	2	36	38	575,700	6.60
2017	<i>Floods and storm with heavy winds</i>	-	-	109	109	583,400	18.68
2018	<i>Floods and storm with heavy winds</i>	-	-	22	22	590,100	3.73
2019	<i>Floods and storm with heavy wind</i>	-	-	74	74	598,000	12.37

3. Managing climate change-related hazards with official statistics

- Official Population data from the Population Census (GBS), Mid-year estimates (GBS) and CRVS data from the Central Registry Office is used (population by location, age, sex and age/household size) by the National Coordination Center For Disaster Relief (NCCR) and the Fire department, in case of an emergency.
- Data on Population and dwellings can be found in the Environment Statistics Publications (chapter 1), the Demographic statistics publication and the Statistical yearbook online via the GBS website or in hardcopy.
- For other information regarding the districts, official information from the Districts Commissioners is used.

4a.Challenges

- Since March 2020, COVID 19
- Lack of human and Financial resources make it hard for the NSO to do specialized surveys to collect data on Disasters.
- For data on disasters the GBS relies on administrative data from the NCCR, Fire department & the Meteorological Service .
- Lack of knowledge on how to collect and compile data regarding disaster related indicators. The NSO staff and selected institutes receives training, but not the staff from other institutes like NCCR that have to provide this data to the NSO. Because of the dependence on administrative data and the lack of metadata, the data quality is not measured and there are still data gaps for selected disaster indicators.
- Lack of data by Gender on most environment data and also on Natural Disasters and Extreme events

4b. Advantages and Opportunities

- Good collaboration between the NSO and the Environment Stakeholders from the Meteorological Service and the National Coordination Center For Disaster Relief (NCCR).
- In Chapter 2 of the 9th Environment Statistics publication of GBS, there is data available on Climate and Natural Disasters.
link: <https://statistics-suriname.org/wp-content/uploads/2021/03/Final-9th-environment-pub-2020.pdf>
- The NCCR collects data on extreme events and natural disaster digitally, which is provided to the GBS when requested.
- The Meteorology Service collects data on a daily basis on national level and by stratum (urban, rural & Interior), which is provided to the GBS when requested.
- The UNDP also has various Environment & Climate Change projects where funding is available. (For example, the midyear validating workshop and the launch of the Environment Statistics publication are funded by the UNDP)

5. Way forward for Suriname

- Try to collect more Disaster data for the 10th Environment Statistics publication, planned for 2022.
- In 2022 plan to publish a Climate Change Statistics Report for Suriname, that will contain data on Disasters in the Chapter about the Drivers.
- Keep participating in national, regional and international trainings, workshops, etc. and continue to contribute to the Expert Group on Environment Statistics.
- In the future, GBS can consider developing specialized surveys to measure impacts of disasters.



9^e Milieu Statistieken Publicatie
9th Environment Statistics Publication
2015 - 2019



Complimentary Copy

BEDANKT

THANK YOU

GRACIAS