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SITUATION, OPPORTUNITIES, CHALLENGES IN THE PRODUCTION OF CLIMATE CHANGE INDICATORS

SIDE EVENT TO THE 52ND SESSION OF THE UN STATISTICAL COMMISSION

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Small Island Developing States (SIDS)

Many SIDS are low-lying countries with development centred along the coast

Particularly vulnerable to the impacts of climate change

Majority are in the tropics

Seasonally affect by extreme weather events such as hurricanes, tropical storms and cyclones

Affected by climate variability: droughts and flooding which are threats to human settlements, infrastructure and the economy

Impact of Climate Change on SIDS

Economic and climate-sensitive sectors such as water, tourism, agriculture, fisheries and forestry depend on natural resources for economic development

Climate change is therefore a major threat to SIDS overall development

Most SIDS rely on fossil fuels but are exploring renewable sources of energy. However, emissions from SIDS are very low compared to industrialised countries

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Areas in Jamaica most likely Impacted by Climate Change

Marine & terrestrial resources	Freshwater resources	Human settlements and infrastructure)	Agriculture and food security
Tourism	Human health	Energy	Poverty

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Production of Climate Change Indicators in Jamaica

- Importance of Climate Change statistics:
  - Used by policy makers in the planning & implementation of environmentally sustainable initiatives
  - Enhance the impact climate change on the general public
- Data sources: administrative data obtained from various government ministries, departments and agencies

Challenges in Producing Climate Change Indicators

Typical of all environment statistics, limited data available when compared to economic & social statistics.

Gaps in time series

Information is dated

Reflection of an underdeveloped National Statistics System (NSS)

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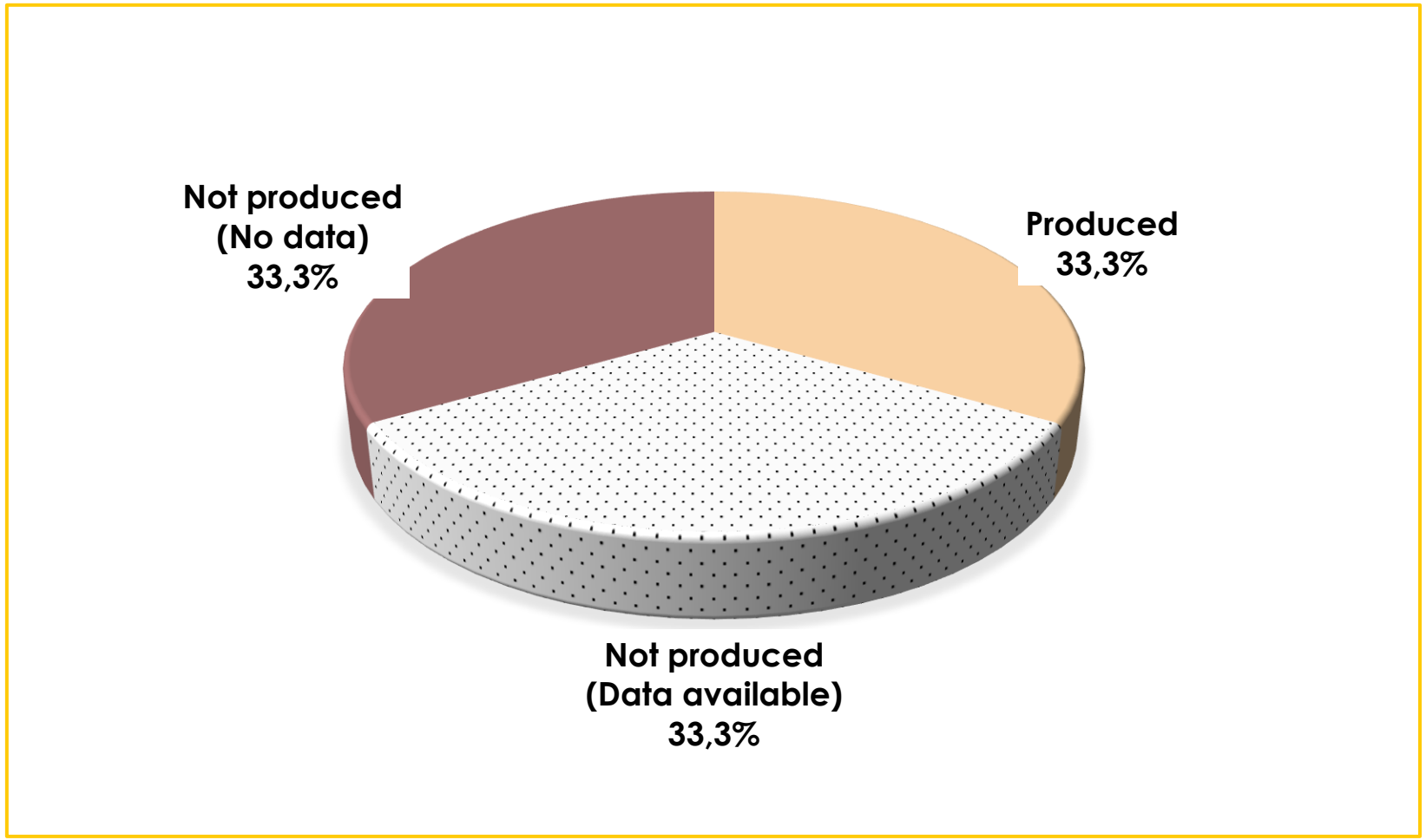
SDG-Goal 13: Take urgent action to combat climate change and its impacts



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Production of Climate Change Indicators

- In 2017 STATIN produced its first report on Climate Change Statistics; ***Climate Change Statistics 2016***
- Data are updated in STATIN's annual Environment Statistics Report
- SDG reports

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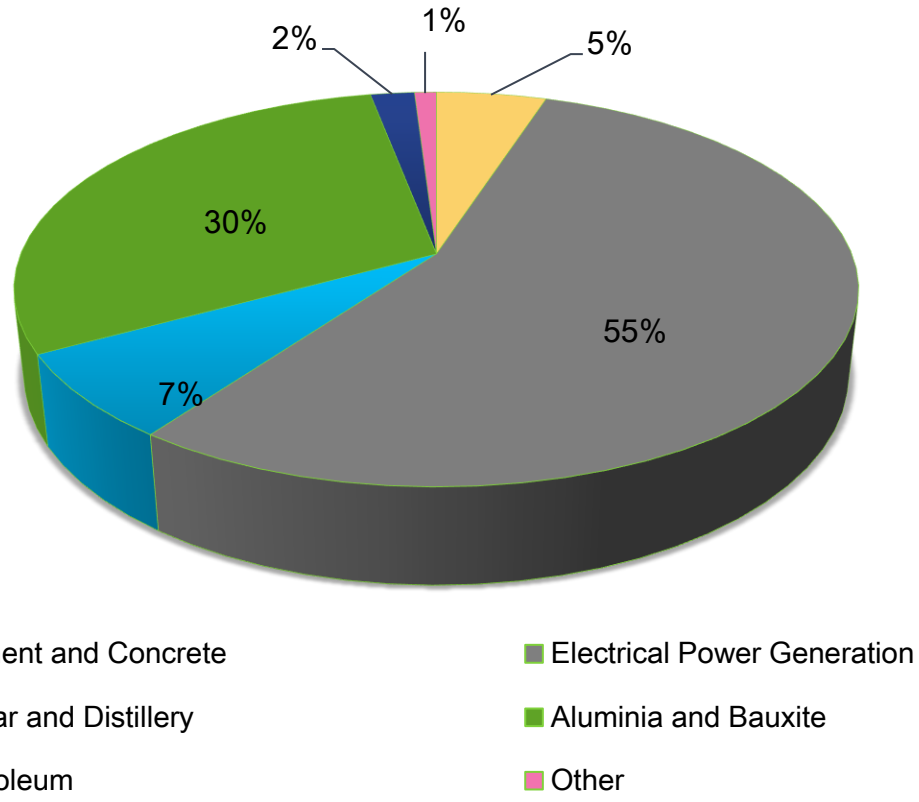
Climate Change Statistics 2016 Report

The data presented in the publication are mainly based on the statistics and indicators included in the Framework for the Development of Environment Statistics (FDES)

The report looks at the primary drivers of climate change; the evidence and impacts of climate change; and efforts to mitigate and adapt to climate change

Climate Change Statistics 2016 is available for download at www.statinja.gov.jm

Total Carbon Dioxide Emissions by Regulated Industry: 2013



FDES Topic 3.1.1. Emissions of Greenhouse Gases

Source: National Environment and Planning Agency

The majority of emissions of CO_2 were from the electrical power generation (55%) and the alumina & bauxite industries (30%).

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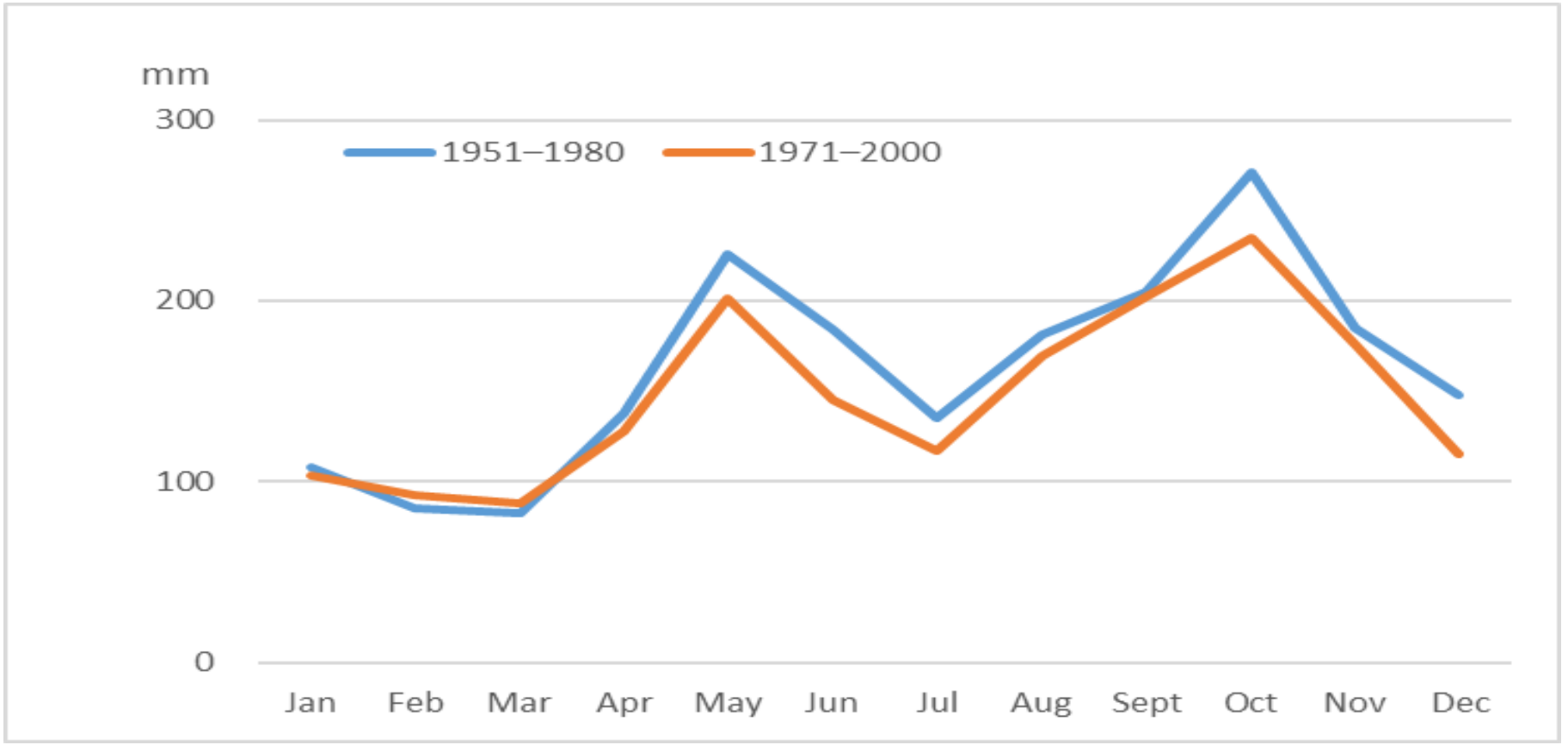
Thirty Year Mean Rainfall by Month: 1951-1980 & 1971-2000



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Estimated Economic Impact of More Recent Extreme Climate Events on Jamaica

Estimated Economic Impact of Recent Extreme Climate Events on Jamaica				
Event	Year	Category	Cost (J$ billions)	Impact (% of GDP)
Hurricane Michelle	2001	4	2.5	0.8
May/June Flood Rains	2002		2.5	0.7
Hurricane Charley	2004	4	0.4	0.0
Hurricane Ivan	2004	3	36.9	8.0
Hurricanes Dennis & Emily	2005	4	6.0	1.2
Hurricane Wilma	2005	5	3.6	0.7
Hurricane Dean	2007	4	23.8	3.4
Tropical Storm Gustav	2008		15.5	2.0
Tropical Storm Nicole	2010		20.6	1.9
Hurricane Sandy	2012	1	9.7	0.8
Hurricane Matthew	2016	4	n.a.	n.a.

Source: Planning Institute of Jamaica and Office of Disaster Preparedness and Emergency Management

n.a. = not available

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Primary Energy Supply by Source: 2013 – 2018, '000 BOE

Source	2013	2014	2015r	2016r	2017r	2018p	Percentage change	
							2017-2018	2013-2018
Petroleum[1)]	19,183	18,861	19,166	20,031	19,409	19,061	-1.8	-0.6
Hydropower	77	84	80	74	96	111	15.6	44.2
Wind	71	74	78	118	179	187	4.5	163.4
Solar*				8	27	28	3.7	n.a.
Coal	450	574	511	491	425	398	-6.4	-11.6
Bagasse	626	677	621	487	334	265	-20.7	-57.7
Natural Gas	n.a.	n.a.	n.a.	n.a.	508	587	15.6	n.a.
Total Alternative Energy	1,224	1,409	1,290	1,178	1,569	1,576	0.4	28.8
Total	20,407	20,270	20,456	21,209	20,978	20,637	-1.6	-1.1

Source Ministry of Science, Energy and Technology

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