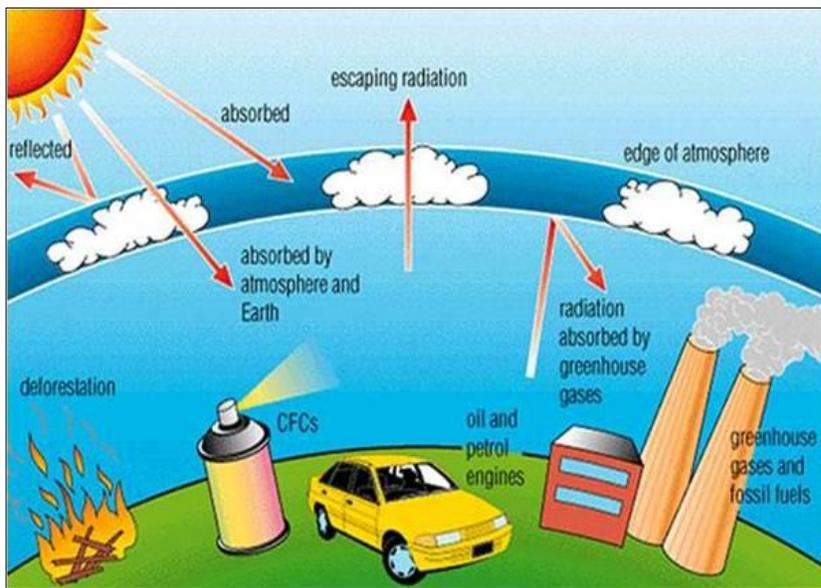# IS Climate Change Really Happening?

What is Climate Change?

Climate change is the long-term change in the earth's climate patterns. It happens because of global warming, which occurs when there are increasing levels of greenhouse gases that add to the greenhouse effect.

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Greenhouse gases include water vapor, carbon dioxide, methane, and nitrous oxide. These gases are released when we engage in deforestation and use fossil fuels and chlorofluorocarbons (CFCs) as seen in the illustration.

Effects of Climate Change

Climate change causes the average yearly temperature to increase, thereby melting ice caps and increasing rainfall and drought periods. When these happen, the human population and the physical environment all over the world become affected in many ways.

Climate Change is Already Affecting Our Daily Lives!

In Guyana, we are already experiencing the negative impacts of climate change. It is causing:

- ✓ Increase of heavy rainfall;
- ✓ Sea-level rise and coastal flooding; and
- ✓ Increase in temperature and the decrease of annual precipitation.
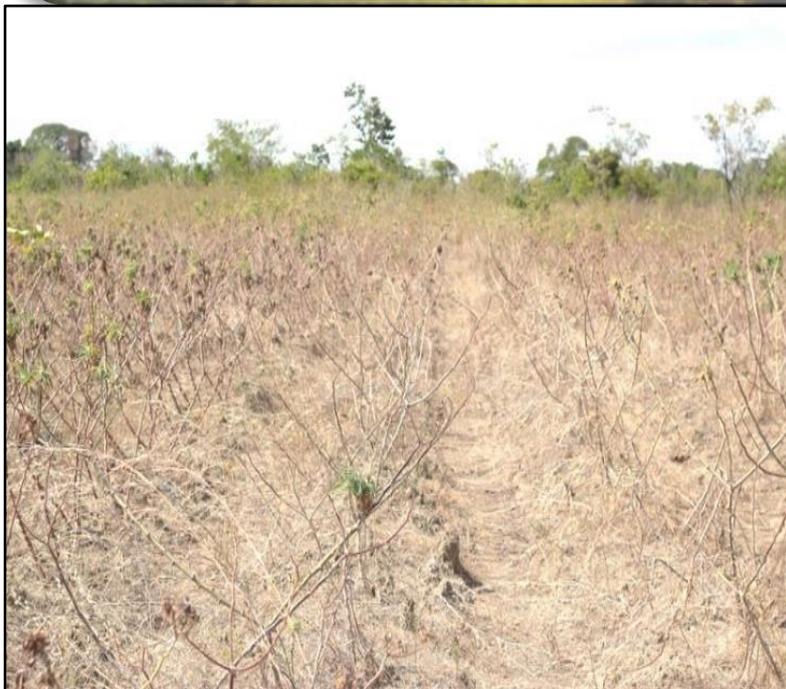

© J. Cholmondeley
Overtopping of the Kingston sea wall, Georgetown, Region 4, 2017

© stabroeknews.com
Heavy rainfall resulted in flooding around St. George's Cathedral in Georgetown, 2017

Projections of Future Changes in Climate

Climate Change is expected to continue affecting Guyana because of the following:

✓ Sea-level is likely to rise more than 1 metre by 2100.

✓ Average annual temperature of the atmosphere is expected to increase between 0.9°C to 3.3°C in the 2060s.

✓ Average annual rainfall is projected to increase by 20% (more floods) and decrease by 34% (causing drought) by the 2090s.

© mere-pyaar.tripod.com
As recent as 2016 and 2017, droughts were experienced in the Rupununi (Region 9)

Overall, some of the effects of climate change, such as changes in rainfall pattern, temperature pattern, and sea level, will potentially result in a number of health issues in Guyana.
Some of these issues include increased death and injuries, and higher incidence of vector-borne diseases (such as malaria, yellow fever and cholera), and water-borne diseases (including leptospirosis, dengue and diarrhea).
Climate change also affects health indirectly by disrupting agricultural activities through drought or excess rain, leading to or famine.