



GOJ/EU/UNEP CLIMATE CHANGE ADAPTATION  
& DISASTER RISK REDUCTION PROJECT

# Hot Topic- Climate Change & Health



## Climate change may cause...

### What is climate change?

Our climate is changing because as human beings we have increased the amount of certain gases, called greenhouse gases, in our atmosphere.

We burn oil, coal and gas to produce energy for homes, factories and businesses and for our transportation needs. Burning these fossil fuels also produces greenhouse gases like Carbon Dioxide, Methane and Nitrous Oxide.

Excess greenhouse gases in our atmosphere are trapping too much heat around the earth. This heat makes our earth warmer, like a greenhouse. This is what is known as global warming. It is this increase in temperature over time which results in climate change. Climate change has serious implications for our health and well being.

### Health...

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organisation definition). Climate change has both direct and indirect impacts on human health.

**More weather-related death and injury:** Injuries and fatalities can occur because of extreme weather events such as hurricanes or intense rainfall.

**Increased temperature and heat illness:** Rising temperatures can result in heat exhaustion, heat stroke, dehydration and even death. Increased temperatures can also have implications for persons prone to, or suffering from, cardiovascular diseases.

**Increase in vector-borne diseases:** More intense rainfall events may increase the rate at which mosquitoes breed by providing more sites for breeding. A 2-3 degree increase in temperature will lead to a threefold increase in the transmission of dengue fever. Storage of water during longer dry seasons may also increase breeding sites for mosquitoes.

**Compromised water supply, sanitation and associated diseases:** Drought reduces access to safe domestic water supply. Heavy rainfall and associated flooding can also compromise the water supply by contaminating ground water sources. This may lead to an increase in waterborne diseases such as leptospirosis.

### **Food security issues and malnutrition:**

Changing weather patterns will affect the water supply and agriculture. This will impact food availability. Jamaica's Second National Communication to the UNFCCC states that "Drought and high temperature can affect health indirectly through the loss of food production and subsequent necessity to import food and/or suffer food shortages, which may lead to hunger and malnutrition."

**Air quality and respiratory illnesses:** The composite conditions of warmer temperatures, humidity and winds carrying dust from the Sahel drought in Africa to the Caribbean will lead to increased incidence of respiratory illnesses like asthma, bronchitis. Air pollution resulting from fossil fuel emissions will also lead to an increase in respiratory illnesses.

**Sea Surface Temperature increases:** Increasing sea surface temperature provides favourable conditions for the blooming of Red Tide (a toxic algal bloom). Red Tide poses a threat to human health as consumption of shellfish which are contaminated with these toxins can lead to shellfish poisoning.

## **Some things we can do.....**

- **Implement sustainable design standards** for housing in areas that are subject to high rainfall and hurricane winds.
- **Develop a robust public health inspection system** aimed at mosquitoes and eradicating rodents and pests
- **Invest in public education** aimed at disease prevention, better sanitation and food poisoning.
- **Increase health surveillance** in vulnerable communities.
- **Retrofit health infrastructure** so that they can withstand extreme events
- **Immunize populations** more likely to be exposed to mosquito borne diseases.
- **Improve the capabilities of ODPEM** to warn of hazards
- **Improve the capacity of Ministry of Health** to access and interpret weather data from the Meteorological Office for monitoring and warning of climate-related health concerns
- **Pay more attention to the design of settlements.**



### **Sources:**

Climate Studies Group, Mona (CSGM), 2012: **State of the Jamaican Climate 2012: Information for Resilience Building (Full Report)**. Produced for the Planning Institute of Jamaica (PIOJ), Kingston Jamaica.

**The Second National Communication of Jamaica To The United Nations Framework Convention on Climate Change 2011**  
<http://unfccc.int/resource/docs/natc/jamnc2.pdf>

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