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

Hot Topic- Climate Change & **Hurricanes**

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 on land and sea over time which results in climate change. Warmer seas are a critical factor in the development and intensity of storms and hurricanes in our region.

Hurricane Development

Hurricanes are usually formed from easterly waves moving over the Atlantic Ocean or the Caribbean Sea where the sea surface temperatures and wind shear are conducive for such development. Hurricanes are known to be associated with strong winds and intense or prolonged rainfall. The hurricane season starts on June 1 and ends on November 30 each year.

Hurricane Impacts

Jamaica's location in the Caribbean increases the island's vulnerability to hurricanes which have caused significant loss of life and damage to property costing millions of dollars. These impacts result from flooding, landslides, storm surge and wind damage.

Recent hurricanes destroyed a significant percentage of domestic and export crops, damaged houses and road infrastructure and have had a negative impact on economic growth.

Health related illnesses are also common after hurricanes e.g. the typhoid outbreak after Hurricane Gilbert in 1988. Water is a critical resource but distribution and availability can be affected during and after a hurricane event. This has serious implications for sanitation and health.

Hurricane Trends

Since the 1990s the number of named storms has increased significantly in the Atlantic and Caribbean regions. The years 2005, 2010, 2011 and 2012 are among the most active in terms of hurricane development.

Vulnerable sectors such as agriculture, infrastructure, energy and water resources have been repeatedly impacted.

Coastal inundation (flooding), erosion and storm surge along the coastline have caused significant damage to the tourism sector.

Projections

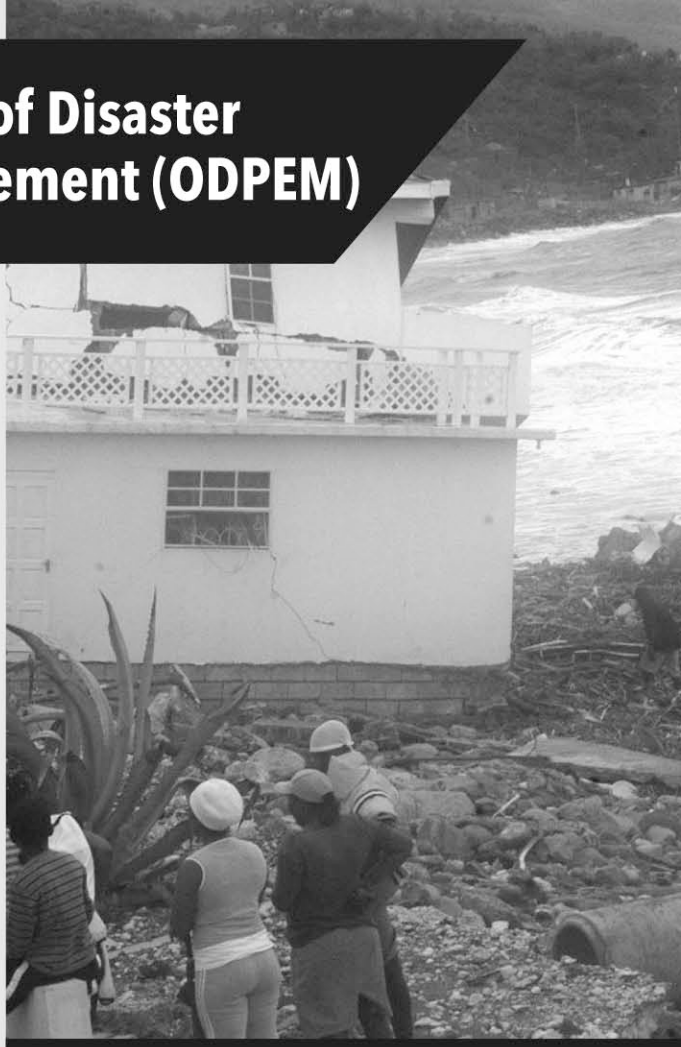
Projections indicate that there will be variations in the tropical cyclone activities. It is expected that the strength of future hurricanes will increase but the frequency in the occurrence will likely decrease.

Recent Hurricanes Passing Within 69 miles of Kingston or Montego Bay (1988-2012)

Name of Storm	Year	Category
Hurricane Sandy	2012	1
Hurricane Dean	2007	4
Hurricane Dennis	2005	3
Hurricane Ivan	2004	5-4
Hurricane Charley	2004	1
Hurricane Iris	2001	1
Hurricane Gilbert	1988	3

Source: NOAA

Hurricane Safety Tips from the Office of Disaster Preparedness and Emergency Management (ODPEM)



Before a hurricane:

- Check the roof of your house, hurricane shutters, hooks and latches and repair where necessary.
- Keep extra plastic bags and sheets of plastic to prevent important documents, equipment and furniture from getting wet.
- Keep a supply of wood such as plywood, lumber and timber for battening down.
- Trim trees that touch power lines or hang over the house and other buildings.
- Ensure that emergency cooking facilities such as coal stoves are in good working condition and have a supply of kerosene and coal.
- Latch down all small buildings in the yard such as outdoor kitchens, pit latrines, sheds, etc.
- Store extra food, especially things that can be eaten without cooking or which need very little preparation.
- Place emergency food supplies in a closed waterproof container.
- Make sure you have emergency equipment in your home. These include water boots, raincoats, flashlights, batteries, portable radio, kerosene lamps and matches.
- Have simple first-aid equipment such as iodine, bandages and eye lotion at home.

During a hurricane:

- Do not go outside unless it is absolutely necessary.
- If you are away from home, remain where you are until the hurricane has passed.
- If the house shows signs of breaking up, stay under a table or stand in a sturdy closet.
- Be prepared for material falling from the ceiling.
- If your glass windows have not been boarded up, place a large heavy object in front of the window to protect yourself from splintering glass.
- Be calm! Your ability to act logically is important.
- Listen to the radio for information on what is happening.

After the hurricane:

- Seek medical attention for persons injured during the storm.
- Do not touch loose or dangling electrical wires. Report these to the power company, the police or parish council.
- Report broken sewer or water mains directly to the parish council, NWC or water resources authority for your area.
- Water which has been stored should not be used for non-essential purposes or thrown out until normal water services have been restored.
- Boil all drinking water until you are sure that a safe water supply has been restored.
- Collect fallen branches and debris and pile them where they can be easily collected.
- Do not go outside barefooted. Avoid wearing open shoes and watch out for broken glass.

EMERGENCY NUMBERS

ODPEM - 906-9674-5
Meteorological Service-929-3700/6
Red Cross-984-7860-2
Universal Emergency Numbers- 110 and 911
Hurricane Update-116

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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