

Geography

in the news.

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Hurricane Beryl batters the Caribbean

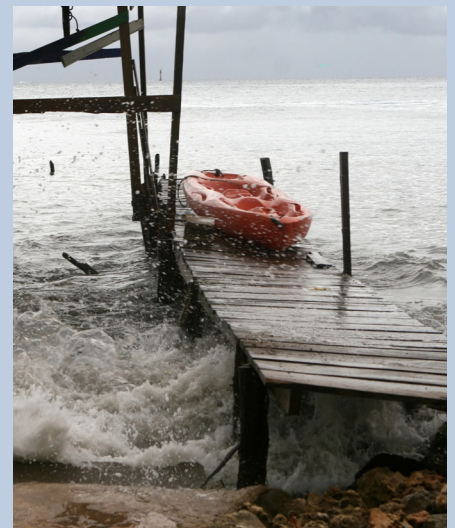
In early July 2024, Hurricane Beryl tore through parts of the Caribbean, Mexico and the USA killing over 50 people and causing billions of dollars of damage. It was the earliest Category 5 hurricane ever recorded in the North Atlantic and marks the beginning of a hurricane season that is predicted to be extremely active.

What was the track of Hurricane Beryl?

Hurricane Beryl formed off the west coast of Africa at the end of June, intensifying as it moved westwards over the warm ocean. On 1st July, Beryl struck Grenada before passing south of Jamaica and on to the Cayman Islands. It weakened as it passed over the Yucatan Peninsula, Mexico, but then strengthened over the Gulf of Mexico before finally making landfall in Texas, USA. Hurricanes derive their energy from high rates of evaporation over warm oceans. When a hurricane makes landfall, this energy supply is cut off and the hurricane weakens.

What was the impact of Hurricane Beryl?

The greatest damage from the hurricane's 240km/h winds occurred on Grenada's northern islands of Carriacou and Petite Martinique and in St Vincent and the Grenadines where many homes were destroyed, trees uprooted, crops flattened, farm animals drowned and power supplies cut off. Heavy rain caused widespread flooding. The United Nations estimated that 100% of the population (about 200,000 people) in these two countries were affected by the hurricane and a further 200,000 people impacted on the island of Barbados



What were the responses?

Hurricanes – tropical storms – can be tracked by satellite. Meteorologists can predict quite accurately a hurricane's development and its likely future track, enabling warnings to be issued several days in advance. As Hurricane Beryl advanced towards the Caribbean, many people responded by moving away from vulnerable coastal areas, threatened by storm surges, to designated hurricane shelters on higher ground. Schools were closed, ferries and flights were cancelled and, on St Vincent and the Grenadines, a night-time curfew was announced.

Hurricane warnings were issued across the Caribbean, the Yucatan Peninsula and in the United States Gulf Coast. Whilst the region suffered extensive damage, the loss of life was relatively low, largely due to accurate monitoring and prediction, and the responses of people to the impending threats associated with Hurricane Beryl.

Are there any links to climate change?

Scientists consider that higher sea surface temperatures resulting from climate change may cause hurricanes to become more intense in the future, with heavier rainfall and stronger winds speeds.

A recent report published by Imperial College, London suggests that Hurricane Beryl's extreme winds in Jamaica were nearly twice as likely to be due to climate change. The report suggests that the likelihood of this type of event occurring has changed from an average of once every 60 years to once every 35 years due to climate change.

Hurricanes may increasingly develop in marginal areas on the fringes of the recognised 'hurricane zones' and the hurricane season may become extended. Only time will tell if Hurricane Beryl is an exception to the rule or evidence of a worrying trend!



2

Galloway selected for new national park

The Scottish government has selected Galloway as the preferred choice for a new UK national park. If designated, Galloway will become Scotland's third national park after the Cairngorms and Loch Lomond, and the Trossachs. Currently, there are 15 national parks in the UK, the most recently designated being the South Downs in 2010.

According to the Scottish government, Galloway was selected from a shortlist of five on account of its 'unique and distinct character'. If granted national park status, the area will be subject to strict planning restrictions to preserve the natural environment.

Galloway: a new national park?

Whilst national park status will encourage more tourism in the area and potentially boost the local economy, some local people – particularly farmers - are concerned about new regulations and 'red tape'. Concern has also been expressed about the capacity of the transport networks to cope with additional tourism.



3

Huge Oxfordshire solar power plan causes controversy

A plan to create the largest solar farm in the UK faces stiff opposition from local people and academics. The Botley West solar farm would involve the installation of 2.5 million solar panels spread across 1,400ha (one hectare is roughly the size of a football pitch) of gently rolling countryside on the outskirts of Oxford.

Solar farm, USA

It is one of 30 large-scale solar projects that could contribute significantly to the UK's climate goal of generating 100% clean electricity by 2035. In balancing energy and food security, the government has instructed developers to focus on land of low agricultural value. However, nearly 40% of the land identified for development in the Botley West project is considered to be good quality farmland.

The German-based developer, Photovolt Development Partners,

estimates that the 840-megawatt project could power up to 330,000 homes. Sheep would be able to graze the land occupied by the solar panels and it is claimed that biodiversity will increase, presumably as the area would no longer be farmed intensively.

The campaign group 'Stop Botley West' suggests that solar farms are inefficient and create a high carbon footprint. The group is concerned that the countryside will become 'armour-plated' and that food security will be threatened.

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Met Office report concludes 'the UK's climate continues to change'

The Met Office's annual 'State of the UK's Climate' report (2023) states that the UK's climate is already changing, with recent decades being warmer, wetter and sunnier than the 20th Century.

Highlights of the report include:

- 2023 was the second warmest year in the UK on record (since 1884), with 2022 being the warmest on record
- The number of 'hot' days (28C) has more than doubled and 'very hot' days (30C) more than trebled for the most recent decade (2014-2023) compared to 1961-1990.
- In 2023, the warmest June on record and the September heatwave were made more likely by climate change
- Five of the 10 wettest years since 1836 have occurred this century. In 2023, March, July, October and December were all top-ten wettest months.
- 2023 saw the warmest UK near-coast surface sea temperatures since 1870
- In 2023, tidal gauges around the coast observed a rise in sea level