Luke Pearson |
geographyportal.co.uk
06.09.20 V1.2

2005 Hurricane Katrina, USA [HIC]

Topic: Impacts and human responses as evidenced by *two recent tropical storms in contrasting areas of the world*

New Orleans, Louisiana, USA

How do tropical storms form? Click here for more info

Local Impacts:

- 🔵 Over **1,800 people died** as a result.

- 🔴🔵 **300,000 homes were destroyed**, and a further 3 million left without electricity.

- 🟢 **Delicate coastal ecosystems damaged** due to winds and storm surge.

- 🔵 **Mass-looting** (community spirit?!) as hurricane impacts targeted marginalized in society with little support.

- 🔵🔴 **80% of New Orleans was flooded** and **53 levees permanently destroyed**.

Wider-Scale Impacts:

- 🟡🔴 **Fuel prices rose** due to the cutting off of the US' oil refineries in the Gulf of Mexico, to over $70 per barrel.

- 🔴🔵 **Infrastructure** such as railways, roads and local airports, valuable to the local economy, were **destroyed**

- 🟡🔴 **US$125 B total economic impact – tied as the costliest tropical storm on record.**

- 🔵 Federal disaster declarations covered **90,000 square miles**; an area almost as large as the United Kingdom.

- 🟡🔵🟢 Much of New Orleans is still damaged or unrecovered from the disaster, over 15 years later.

Background Information:

The 2005 Atlantic Hurricane season was the most active on record, with 31 tropical storms recorded, four of which ended up as Category 5 hurricanes on the Saffir Simpson scale, the highest level. Lasting **between August 22nd and 31st 2005**, one of the most devastating was Hurricane Katrina which reached **peak winds of over 175mph** in the Gulf of Mexico but weakened by the time it struck the U.S. states of Louisiana and Mississippi. The most devastating effects of the season were felt on the Gulf Coast of the United States, where Katrina's **storm surge crippled New Orleans, Louisiana**, for weeks and devastated the Mississippi coastline. Flooding caused largely as a result of **fatal engineering flaws in the flood protection levees** around the city resulted in over 80% of the deaths.

Short-Term Responses:

- 🟡 Heavy criticism of poor planning in the event of hurricane events, and mismanagement of the aging flood levees lead to most deaths.

- 🔵 **Emergency housing for 2.3 M** in 902 shelters across 24 states provided**.**

- 🔵🟢 **More than 130,000 relief workers from all states.** During this effort, the Red Cross rapidly trained 74,000 in disaster relief skills.

- 🔵 America's Second Harvest collected 33 million pounds of food for those who had been displaced.

Long-Term Responses:

- 🔵🟡 Up to 45,000 national guard and federal troops mobilized to help re-establish governance.

- 🔴🟡 The **USA received disaster aid and assistance from over 50 countries, totaling $850 M**. However, some estimate the US barely spent 10% of this on disaster relief and reconstruction.

- 🔵🟢 Poor and half-heated reconstruction efforts since.

'SEEP' Tracker Box
🔵 Social 🔴 Economic 🟢 Environmental 🟡 Political

Links & References:

What Case Studies Can This Be Linked To?

You must know at least two recent tropical storm case studies, advisably one in a HIC and one a LIC. SUGGESTED: EITHER HAITI & NEW ORLEANS / NEW ORLEANS & PHILIPPINES

- **A* Case Study | 2013 Typhoon Haiyan, Philippines** (link to be added when CSFF is produced)

  What to know in brief: Typhoon Haiyan was a massively devastating natural disaster which hit the vulnerable Philippine islands in late 2013. Interestingly, although faster and more lethal, the reconstruction costs ($3B) were a small fraction of Katrina's.

  QR:

- **Haiti [Multi-Hazard Environment] w/ 2016 Hurricane Matthew**

  What to know in brief: Haiti is just about the least lucky nation in the Western Hemisphere (and is also the least well off.) Hurricane Matthew wreaked havoc through the country, still recovering from their deadly 2010 earthquake, thus significantly worsening the situation there. This is in stark contrast to wealthy nearby Bahamas, who successfully managed and mitigated most impacts of the very same hurricane days later.

Have A Go At Practice Exam Questions:

9 MARKER (AO1 & 2) QUESTION #2

With reference to one or more tropical storms that you have studied, assess the extent to which exogenous factors (relationships with other places) assisted with the response to the hazard created…

9 MARKER (AO1 & 2) QUESTION #4

Assess whether storm surges pose the greatest threat to human activity as a result of Tropical Storm events.

20 MARKER (AO1 & 2) QUESTION #1

With reference to at least two named examples, to what extent do you agree that 'the development of a country is the greatest determinant of impacts of a tropical storm?'

Many of these questions will have exemplar answers and mark schemes available, feel free to look at them for information.

Useful links:

NPR Audio - https://wamu.org/story/20/09/01/what-we-learned-and-what-we-didnt-from-hurricane-katrina/

CNN Fast Facts - https://edition.cnn.com/2013/08/23/us/hurricane-katrina-statistics-fast-facts/index.html

Nat Geo Katrina Day-By-Day - https://www.youtube.com/watch?v=HbJaMWw4-2Q

Inside Edition What New Orleans was like after Katrina - https://www.youtube.com/watch?v=HVuVzY7Mv5A

NOAA National Weather Service Reports - https://www.weather.gov/mob/katrina