

Libya's catastrophic flooding

September 14, 2023 • vajiramandravi.com



What's in today's article?

- Why in news?
- Geographical location of Derna
- News Summary: Libya's catastrophic flooding
- What caused this catastrophic damage to Derna?

Why in news?

- More than 5,000 people are known to have died and thousands more are missing after devastating floods swept through the **Libyan port city of Derna**.
- Entire neighbourhoods disappeared into the sea as a huge tsunami-like torrent of water swept through the city.

Geographical location of Derna



- Derna is a port city in eastern Libya. It is located on the **Mediterranean coast** between Benghazi and Tobruk.
- It is also located at the eastern end of the Jebel Akhdar, or “green mountains”.
- The city is bisected by the Wadi Derna, a seasonal river that flows from the highlands to the south.

News Summary: Libya’s catastrophic flooding

- More than 5,000 people were killed, about 10,000 went missing, and 30,000 were displaced in Libya after torrential rains caused flooding.
- The flooding burst dams, swept away buildings, and destroyed nearly a quarter of the eastern port city of Derna.

What caused this catastrophic damage to Derna?

- Experts suggest three key factors coalesced into one catastrophe, causing the most devastating floods to have hit North Africa in almost a century.
- These three factors are – extreme weather, vulnerable geography, and crumbling infrastructure.
- **Extreme Weather**
 - Libya’s eastern region, witnessed extreme rainfall from Sept 10 to 11.
 - Eg., in Derna, the average monthly rainfall in the whole of September is under 1.5 mm. However, it exceeded 150 mm in about two days.
 - The rains were accompanied by strong winds of up to 80 kph.
 - The water was brought by **Storm Daniel** which reached Libya on September 10.
 - **Formed in Greece**, this storm is also responsible for causing floods and deaths in Spain, Turkey and Bulgaria earlier this month.
 - Before reaching Libya, Daniel transitioned into what is known as a **‘medicane,’** or tropical-like cyclone that occasionally forms over the Mediterranean Sea.
 - The storm became stronger as it drew energy from the abnormally warm waters.
 - The Mediterranean has been 2 to 3 degree Celsius warmer this year than in the past.
 - Medicanes are known to be weak storms that don’t last long.
 - But higher sea surface temperatures help them become stronger and last longer.

- It unloaded excessive rainfall over northeastern Libya, where rain flowing down the mountainous terrain overwhelmed dams.

• Vulnerable geography

- The floods seem to have caused the most destruction in Derna.
- One reason behind the city's widespread damage is its location.
- It is situated at the **end of a valley** and bisected by the Wadi Derna, a seasonal river that flows from mountains to the south (towards the sea) and is normally protected from flooding by dams.
- The unusually heavy rain overwhelmed two crucial dams and destroyed several bridges.



• Crumbling infrastructure

- The collapse of the two dams in Derna highlights the dilapidated infrastructure of Libya.
- The country has been gutted by a war between two rival factions for more than a decade.
 - In Tripoli, Prime Minister Abdul Hamid Dbeibah leads Libya's internationally recognised government.
 - In Benghazi, the rival prime minister, Ossama Hamad, heads the eastern administration, which is backed by powerful military commander Khalifa Hifter.
- In the tussle for power, focus on socio-economic issues, including maintaining and developing infrastructure has been put on the backburner.
- Moreover, as flooding is quite rare in the region, Libya wasn't prepared to face the calamity.
 - There are no flood-resilient structures or roads in the country, especially in Derna.
 - Any sort of early-warning system regarding such disasters also doesn't exist.

Q1) What is Wadi Derna?

Wadi Derna, also known as Wadi al-Darneh, is a geographic feature located in northeastern Libya, along the coast of the Mediterranean Sea. A wadi is a term used to describe a dry riverbed or valley that can occasionally fill with water during periods of heavy rainfall. Wadi Derna is situated in the Derna District of Libya and is known for its rugged and picturesque landscapes. The region features rocky terrain, cliffs, and canyons, making it both a natural attraction and a challenging environment for travel and exploration.

Q2) What is medicane?

A “medicane” is a meteorological term used to describe a weather phenomenon that combines features of both a hurricane (tropical cyclone) and a Mediterranean low-pressure system. It is essentially a Mediterranean hurricane. The term “medicane” is a portmanteau of “Mediterranean” and “hurricane.”

Source: [Behind Libya’s catastrophic flooding: Extreme weather, vulnerable geography, and crumbling infrastructure](#) | [BBC](#) | [France24](#)

Source: <https://vajiramandravi.com/current-affairs/libyas-catastrophic-flooding/>

© Vajiram & Ravi. For personal use only.