Dust Storm Proves Catastrophic

What is the issue?

\n\n

\n
- Dust-storms, thunderstorms, and lightning at many places in northern, central and eastern India killed as many as 100 people in 1 day.
\n
- While the weather events are common around this time of the year, the number of causalities was unusually high in the current storm.
\n

\n\n

What had happened?

\n\n

\n
- Rainstorms and dust-storms arise from similar meteorological conditions.
\n
- They are almost always preceded (caused) by a spell of intense heat – the affected areas indeed had heat-wave like conditions lately.
\n
- Thunderstorms or hail occur when the atmosphere has moisture, and dust-storms occur when moisture is absent.
\n
- Indian Meteorological Department (IMD) routinely issues alerts and the current weather events too, had been predicted, and warnings were issued.
\n

\n\n

\n
- **The Factors -** Such storms occur due deviation from the normal temperature difference (locally) between the upper and lower atmosphere.
\n
- Moist easterly winds from the Bay of Bengal reached up to Himachal Pradesh, which was also receiving dry winds from the north-westerly direction.
\n
- These two systems destabilised the equilibrium between the upper and lower

layers of atmosphere – making it conducive for the thunderstorm.
\n
- The final trigger, however, is the development of a large scale air-circulation system that developed over Rajasthan a couple of days earlier.
\n

\n\n

Why so many death?

\n\n

\n
- While it seems odd, a large number of deaths over a few days have been reported earlier too, like in the June 2016 lightening – which killed over 300.
\n
- Notably, lightning is the biggest killer in India among natural calamities and accounted for as much as 2641 causalities in 2015.
\n
- Nevertheless, the recent storm was unusually catastrophic because it occurred over a large area over a short span of time.
\n

\n\n

\n
- In most cases, storms (like lightening) do not kill by themselves– but they trigger incidents that result in deaths.
\n
- Walls or homes collapse, and people are electrocuted after power lines snap, or after they are caught in fields filled with water.
\n

\n\n

How useful are the predictions?

\n\n

\n
- People in the poorest, most densely populated areas are the most vulnerable.
\n
- Also, while meteorological predictions are for broad geographical areas and timeframes, events are however localised both in time and space.
\n
- It is not yet possible to predict a thunderstorm or lightning at a precise location — say a village or a part of a city.
\n
- As the exact times these events will hit can’t be predicted, alerts and

warnings usually merely telling people to expect these events, and to take precautions.
\n

\n\n

\n\n

Source: Indian Express

\n