Heat Dome

- Canada and some parts of the US are reeling under a severe heat wave these days. Meteorologists have blamed the heat dome effect for the sudden rise in temperature.
- According to the 'National Oceanic and Atmospheric Administration' (NOAA) under the US Department of Commerce, A heat dome occurs when the atmosphere traps hot ocean air like a lid or cap. **The phenomenon begins when there is a strong change (or gradient) in ocean temperatures. In the process known as convection, the gradient causes more warm air, heated by the ocean surface, to rise over the ocean surface**.
- In other words, the high pressure of the atmosphere pushes the hot air down, causing the hot air to expand into the atmosphere and act as a hot chamber. Due to the high pressure, the clouds also move away from the lidded dome, but the air starts to shrink and the heat starts. As prevailing winds move the hot air east, the northern shifts of the jet stream trap the air and move it toward land, where it sinks, resulting in heat waves. **A heat dome typically lasts a week.**
- Those living without an air conditioner see the temperatures of their homes rising to unbearably high, leading to sudden fatalities.The trapping of heat can also damage crops, dry out vegetation and result in droughts.This phenomenon of severe climate is also responsible for fire in forests. Due to heat, the demand for energy also increases.