

Association of Temperature and Pollutant Levels and its Impact on COVID-19 over Rajasthan †

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Abstract: Climate change is a form of environmental change which causes different types of nature crises like fluctuation in temperature, the intensity of floods, and the impact of droughts, etc. The association of temperature and pollutants is a very prominent factor in recent days. This association will affect human health and causes physiological health problems like respiratory illness, cardiovascular mortality spreading of different pathogenic diseases. Taking the Rajasthan as one of the polluted states in India as WHO norms from 2016, studied the association of temperature and pollutants like PM10, PM_{2.5}, CO, NO₂, and SO₂ to show the prominent impact of pathogenic diseases like SARS COVID-19. Analysis has to plan by correlating different pollutants on seasonal variations because the temperature is one of the factors in changing seasons. Association between the number of COVID cases and temperature over the parts of Rajasthan is observed. The intensity of pathogenic diseases like COVID-19 increases according to increase or decrease in temperature by the association of impact of seasons, i.e., starting from December 2019 to March 2020, April 2020 to July 2020, and August 2020 to October 2020 and November 2020- December 2020 in Rajasthan. Expected results may be hypothesized for the awareness in public in situations like Covid-19 and its related diseases.

Keywords: climate change; temperature; respiratory diseases; COVID-19; seasonal variations.

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Conflicts of Interest

The authors declare no conflict of interest.