

عنوان مقاله:

The effect of COVID-۱۹ on the air pollution in urban areas of Pakistan

محل انتشار:

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خلاصه مقاله:

Background: The impacts of lockdown on air pollution have been examined in various parts of the world. The concentration of main air pollutants has been decreased owing to a decline in anthropogenic activities like fossil fuel burning, etc. The main aim of this research was to assess the impacts of lockdown on air pollution of the main urban areas of Pakistan. Methods: The present study was conducted to assess the air quality index (AQI) of the main urban areas of Pakistan based on the pre- and post-lockdown effects and mortality rate due to coronavirus disease ۲۰۱۹ (COVID-۱۹). Hotspot analysis was conducted to assess the most vulnerable spots at the country level. Results: The AQI greatly improved in all the main cities of Pakistan which ranges from ۵۱ to ۸۷. The pre- and post-lockdown AQI were categorized from unhealthy for sensitive groups to hazardous and moderate, respectively. There are noticeable hotspots in the vicinity of Lahore and Karachi. The level of nitrogen dioxide (NO_۲) dropped ۴۵%, ۴۹%, ۲۰%, ۳۵%, and ۵۶% in Peshawar, Lahore, Multan, Karachi, Islamabad, and Rawalpindi, respectively. Conclusion: Nature healed due to lockdown, which is the only good face of the COVID-۱۹ pandemic. The temporary lockdown greatly improved air quality which may stimulate the policymakers, researchers, and governments for the smart use of resources to

minimize emissions to heal the nature. The present study also suggests the application of hotspot analysis in different contexts for the evidencebased care services decisions during the COVID-۱۹ pandemic

کلمات کلیدی:

Nitrogen dioxide, COVID-۱۹, Air pollution, Disease outbreaks

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