**Title: Predicting air quality of Dhaka and Sylhet divisions in Bangladesh: a time series modeling approach**

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**Review:**

Airpollutionhasemergedasoneofthemajorpublichealththreats.Inrecentyears,Bangladeshhasrankedamongtop air polluted countries around the globe. Air quality in Bangladesh is measured on daily basis using national standards of five pollutants— NO2,CO,Ozone(O 3),SO2,andparticulatematter(PM2.5 andPM10) andpresentedasindexedvaluerangedfrom0to500which isfurtherclassifiedfromgoodtoextremelyunhealthy.Inthisstudy,wehaveappliedSeasonalAutoregressiveIntegratedMoving Average (SARIMA) model to forecast weekly air quality of Dhaka and Sylhet divisions in Bangladesh. Our study reveals the existence of seasonal patter the air quality and suggests extremely unhealthy and very unhealthy air in January–March2020. Therefore, policymaker should address this period as the air quality directly influences public health.

Findings of the study postulate that during dry season (December–March), air quality of both cities remains unhealthy or extremely unhealthy. Rapid brick-production and urbanization are causing air pollution problems throughout the year but during the dry season the severity increases. Pollution control mechanism, such as reduced use of lead and sulfur content in fuel of urban traffic, should be ensured. Environmentfriendly construction working plans should be deployed across the areas, and modern brick making technology should be introduced widely to control air quality. For uninterrupted urban development works, we suggest to shift two-thirds of the total yearly brick production in the rainy season so that the total brick production as well as the development works are not hampered. Furthermore, the government should improve efficiency of resource management and monitoring process through strengthening enforcement, system accountability, and policy implementation at the local and national level. Green funding should be expanded by both public and private sectors. It is very important to increase awareness among people through mass media and their participation in decision-making. Research in this sector in collaboration with public and private sectors should also be encouraged.