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# Air quality assessment and management in iron ore mining region of Goa

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Mining is one of the core industrial activities responsible for deterioration of environmental quality. Goa has been a diverse State enriched with iron ore reserves. For, the past decades the rampant mining of iron ore has led to the degradation of all environmental regimes especially ambient air. Air quality closely reflects the health status of the population in a respective area. This paper envisioned towards the assessment of ambient air quality in the iron ore mining region of Goa and development of management plans for the mitigation of pollution levels in order to harmonize the goal of development with the need of wholesome environment. The variation in concentration levels of pollutants with respect of meteorological conditions, especially wind speed and relative humidity is also investigated. To envisage upon the quality of air environment, monitoring at thirty four (34) locations, cited as per selection criteria provided under IS: 5182 Part XIV for SPM, PM10, PM2.5, SO2 and NOX was undertaken in the study. This also helped in identification of the criteria pollutants in the ecologically rich State. Ambient air quality monitoring revealed that particulate pollutants (SPM, PM10and PM2.5) are the major pollutants to be concerned in this area. Ore transportation activity is observed as the major source of pollution in the iron ore mining areas of Goa as evidenced by a considerable load of particulate pollution levels. Based on the observations appropriate management plans are also delineated.

## Biography

Atahar Perwez has completed his MSc in Environmental Science from Patna University, Patna. He is currently pursuing PhD from Indian School of Mines, Dhanbad.

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