

**ASSESSMENT AND IMPACT OF AMBIENT AIR QUALITY IN SONEPUR- BAZARI OPENCAST
PROJECT – AN APPROACH TOWARDS SUSTAINABLE ENVIRONMENT,
RANGING COALFIELD, BARDDHAMAN, WEST BENGAL, INDIA**

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ABSTRACT

To get fresh air in urban areas, especially in industrial and mining areas is practically impossible in the context of sustainable state of environment. Assessment and impact of ambient air quality, especially in the coal field area, played significant role in assessing the pollution status in the respective areas. Opencast mining dominate the coal production scenario in India due to a number of favourable factors like economic viability, better safety, large scale mechanization , ease in mass production, higher productivity etc. In opencast mining, the surface alluvium and rock beds (i.e. overburden) below which coal lays are removed by various machineries to reach the coal deposits. Every opencast mining activity like drilling, blasting, excavation, loading, transportation, size reduction, stock piling, etc. releases particulate matter. Also burning of coal, exhaust from vehicle, blasting etc. produce a lot of gaseous pollutants like Oxides of sulphur, Nitrogen, Carbon mono-oxides etc. These are causing air pollution problem not only in mining premises but also in the surrounding areas. To study the status of air pollution caused by opencast coal mining, Sonepur – Bazari Opencast Project of Ranging Coalfield is selected. For the present purpose, primary observation and on spot measurement have been done for getting results. Particularly attempts are made for maintaining pollution free environment and so, necessary measure has been suggested.

KEYWORDS: Air Quality, Air Quality Index (AQI), Monitoring Stations, RSPM, Solid Residues