

## **Influence Of Opencaste Mining and Irrigation Canal on the Change of Climate of West Central Arid Region of India**

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Yearly expansion of mining region in the arid zone of west central India, as observed by satellite imageries, has been studied in relation to the incessant decrease in temperature and the dust storms, over the region. With the increase in mining activity in the region, the total yearly rainfall in this region shows significant decrease. But for the transition months, monsoon and winter seasons indicate the same trend. Twelve years (1990-2002) data of dust storm shows significant drop in number. This decrease shows good correlation ( $r = -0.8$ ) with the rise in mining area over these years.

The cause may be attributed to non-hematite extra dust loading of the atmosphere, increasing the net depletion of radiative forcing. Yearly shrink in the arid region, change in land salinity due to irrigation by Indira Gandhi Canal project and increase in the forest and cultivation cover, all of which change the surface absorption parameters, could possibly be the other causes.

Change in climate has added new diseases over Rajasthan region, which were unheard till 1980's .

*Key words: Climate Change, Open Caste Mining, West Central India, Arid Zone, vector borne disease*