



## **Simulation of Occurrence and characteristics of low-level Cloud over the Western Ghats**

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The Western Ghats is a mountain range along the western side of India with an average elevation of about 1200 metres; this area plays an important role as a site for hydro-electric power generation. Western India has been facing the water shortage problem due to less rainfall since many years. Artificial rainfall from cloud seeding is a solution for this problem. To implement the cloud seeding technique to enhance the rainfall over the western India, a series of numerical experiment for the cloud simulation has been carried out using the high resolution Japan Meteorological Agency (JMA) nonhydrostatic model (NHM). The amounts of liquid and ice water in clouds, cloud temperature, cloud coverage, cloud height has been simulated and effect of wind direction and speed are also considered in the present study.