



## Meteorological Drought Assessment for Agricultural Planning at Mungeli District of Chhattisgarh Plain

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**Abstract:** In rainfed agriculture regions, drought analysis plays a better role for suitable crop planning by predicting the occurrence of drought. In this respect, an attempt has been made to evaluate drought reoccurrence patterns of fortnightly, monthly, seasonal and annual rainfall according to the severity, based on 39 years (1978-2016) data of Mungeli, Chhattisgarh. The occurrence of mild, moderate, severe and extreme drought situation were maximum 28.21, 25.64, 20.51 and 25.64 percent in 4, 5, 3 and 8 fortnight, respectively. The mild and moderate drought occurs in June to October. The maximum percentage of monthly extreme drought (74.36 %) occurs in December and followed by November (58.97%). The possibilities of occurrence of yearly no drought, mild drought and moderate drought are 43.59, 51.28 and 5.13 percent respectively and no year receives severe drought and extreme drought condition. So there were a drought in every 2<sup>nd</sup> or 3<sup>rd</sup> year. Therefore, it is a need of water harvesting at the time of monsoon season so that at least one or two supplemental irrigations can be done in *Kharif* season when dry spell occur or it can be used for *Rabi* season.

**Keywords:** Meteorological drought, Drought analysis, Dry spell, Rainfall analysis, Drought occurrence

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