

# REGENERATION STATUS AND SPECIES DIVERSITY ALONG THE FIRE GRADIENTS IN TROPICAL DECIDUOUS FOREST OF CHHATTISGARH

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**Abstract:** The present work aimed to study the impact or behavior of forest fire on regeneration status and diversity indices. Four sites were selected; in each of these sites pre-fire and post-fire observation were taken for measuring varying degree of disturbances. A total of 19 seedlings species were recorded during pre-fire season and 14 seedlings species were recorded during post-fire season, respectively. Along the fire gradients the tree species exhibited highest density of seedlings in low fire zone. It showed that non-fire zone contained more species as compared to burnt areas. The diversity pattern showed that the medium fire zone had maximum diversity followed by non-fire zone, whereas low fire zone had minimum Shannon index. Seedling density drastically reduced after post-fire (27.63%). In the high fire zone the seedling layer was much affected which will result discontinuation of conversion into sapling with the progress of time and ultimately the gap in the regeneration status.

**Keywords:** Diversity, Forest fire, Pre-fire, Post-fire, Regeneration

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