

## QUANTIFICATION OF FUEL LOADS IN FIRE AFFECTED AREAS OF TROPICAL MOIST DECIDUOUS FORESTS OF ACHANAKMAR-AMARKANTAK BIOSPHERE RESERVE

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**Abstract :** Fuel load assessment in fire affected areas of Tropical Moist Deciduous Forests was carried out in Achanakmar-Amankantak Biosphere Reserve. Historical ground based fire data of last 10 years was used for delineation and identification of fire affected areas. The fuel load was analyzed in different fire zones (i.e., High, Medium, Low and Non-fire) of the pre-fire and post-fire season in the area. The components of fuel load are assessed by laying a quadrat size of 1m x 1m. The biomass of duffs litter and wood litter were summed to derive total fuel load. The net change in fuel load was assessed by subtracting the fuel load existing in pre-fire and post-fire seasons in each fire zone. The total fuel load in different fire zones during pre-fire seasons followed the order: non-fire > medium fire > high fire > low fire zones, whereas during post-fire season it was in the follow the order: non-fire > low fire > medium fire > high fire zones. The results indicated that the duffs litter and wood litter in both high fire and medium fire zones in the post-fire season was decreased. While in low fire and non-fire zones the fuel load was increased due to protection from fire. There is urgent need for management strategies to these forests.

**Keywords :** Biomass, Duffs litter, Fuel load, Wood litter

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