

Title: Estimating Economic Losses and Damages of NTFPs Caused by Forest Fire in Hoshangabad Forest Division, Madhya Pradesh, INDIA.

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Overview of the project:

This study aims to assess the economic loss and damage caused by the forest fires on the Non-Timber Forest Produces (NTFPs). NTFPs play an important role in the livelihood of poor forest-dependent people as the forests are the source of employment and income for these populations. The temporal (pre and post-fire) remotely sensed data will be used to assess the degree of fire severity. With the help of primary data, impacts of forest fires will be measured and loss and damages NTFP will be quantified using market value and opportunity cost methodology. The economic valuation of forest fire sheds a brighter light on the necessity to protect forests by providing appropriate monetary value to the communities that are losing due to these catastrophes.

Research Methodology:

To evaluate the loss and damages of NTFPs caused by fire, delineation, and identification of fire-prone areas will be done based on historical fire information in conjunction with satellite remote sensing data. The analysis rests on the use of satellite remote sensing data (MODIS- Terra and Aqua images) from a pre-fire date as well as from a post-fire date. The use of Geographic Information Systems (GIS) and FIRMS (Forest Department, Govt. of M.P) allows the identification of plant typology and its economic valuation, as well as the availability of information about fire behavior. Pre-fire and immediately next year of fire occurrence as post-fire images will be taken for comparison. A total of four zones *viz.* high, medium, and low-frequency fires, and the non-fire zone will be selected based on the frequency of forest fire and damage during the last 10 years.

Deliverables:

The proposed study will be able to generate.

1. One Monograph
2. Two Internationally refereed Journal Papers, and
3. One Policy Brief.