Role of JFMCs in Sustainable Fire and Fire Induced Disease Management: A Case Study of Betul District, M.P.

Investigators: **Singh, S.P., Mishra, M. and Phukan, B.R.**

Sponsored by: ***RCNAEB, MoEF, Govt. of India***

This study aims at analyzing the role of JFMCs in sustainable fire management of Betul District of Madhya Pradesh. It identifies the fire prone zones in the selected JFMCs and helpful in finding out the future planning and management strategies for fire affected areas in the district. This study will also be helpful to the forest department to know and understand the extent and status of forest fire and its sustainable management practices. Further, it assesses the cumulative ecological, socio- economic and psychological impacts on community living in the forest villages.

In this study, 19 samples were collected by the team members from selected fire prone sites and sent for the laboratory testing at TFRI, Jabalpur, M.P. to identify the causal organism/diseases in the affected samples whether the collected samples had been affected by the forest fire induced diseases.

The before and after techniques were used to assess the impact and incidence of forest fires on the ecological condition, social condition, economic conditions, fire induced diseases and attitudinal changes of people.

Based on the above analysis, the following are the very important recommendations of this study.

1. The awareness level and effective peoples' participation has resulted in less number of forest fire incidences occurred during the year in the selected areas.
2. Minimum fire incidence recorded during the study year 2005 –06 due to skill building and people's participation to protect the forest.
3. Per hectare cost for protecting forest has declined in the study area in all selected forest divisions including FDC form year 2000 – 2005 because of effective participation of JFMCs members.
4. During the study period the area damaged by the forest fire has reduced by 90% as compared to year 2004 .
5. The average forest fire incidences per committee have reduced significantly in the Betul district, which works out less than 0.25.
6. It is essential to incorporate communities' traditional and indigenous wisdom to minimize the monetary loss based on their socio-cultural norms in the study area. Their ways of extraction of NTFP should incorporated if any plan at range level or district level for sustainable harvesting.
7. The government policies and programmes pertaining to forest fire management should be given higher priority in budget outlay of our country's annual plan for research and Developmental

activities. Some portion of budget should be made available for the implementation and capacity building programmes for the villagers and purchase of low cost fire-fighting equipments at committee level. There should be a provision for high level incentives for the individuals/ committee who controls the spreading of ground and canopy fires or develops low cost intensive tools for controlling the induced diseases in the fire prone areas.

8. There is need build up a high- tech- information network to avoid communication gap at time of occurrence of fire and time taken to reach at the spot and controlling the forest fire minimize intangible damages in forest area.
9. The use of remote sensing technology for fire location by using TSI, TERA and Aqua satellite. (Pai 2006)