Proposal for Establishment of
Centre of Excellence
in
Forest Survey of India

Forest Survey of India

(Ministry of Environment, Forests & Climate Change)

Dehradun

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widely used by MoEFCC, its regional officers and SFDs (> 1000 users) and other Ministries for example Central Electricity Authority, Power Grid Corporation of India, Ministry of Power, Mineral Exploration Corporation Limited, Department of Hydrocarbon, National Highway Authority of India, GIM Directorate, Geological Survey of India.

ArcGIS server software & Flex technology has been used for this GIS system. But on 12th January, 2021 Adobe stopped service to Flash Technology. Currently, it is being used on old browser e.g. Mozilla Firefox, Chrome etc. Therefore, DSS requires upgrade.

4.3.2 Current status:

In view of Parivesh portal, which has incorporated DSS in it, additional funds are not required currently. **However, Payment of wages to the Technical Associates/Sr. Technical Associates working in IRO (8), Ministry (2) and FSI (5) as part of GIS-DSS cell, is an issue.** Technical Associates were appointed in IROs & Ministry under Centre of Excellence (CoE) Project as part of GIS-DSS cell project during 2015-2016. Ministry released a fund of Rs. 75 crore in three instalments during 2015-2018 under CoE. Since then Technical Associates are being paid from CoE project. Amount of Rs. 25.99 crore was returned to the Ministry during 2020-2022. Amount of Rs. 32,918/- only is currently available under CoE project. As CoE is not having sufficient funds for payment of wages to Technical Associates/ Sr. Technical Associates working in IROs and Ministry, therefore, FSI has spent an amount of Rs. 20,74,100/- from internal budget of FSI from March, 2022 to July, 2022 on the wages to Technical Associates/Sr. Technical Associates. Since FSI is not having adequate funds under the regular budget, the salary of Technical Associates/ Sr. Technical Associates working in IROs and Ministry is being paid from one of the sanctioned CAMPA project " Monitoring of Planation under CAF" after receiving the direction from MOEF & CC.

In order to continue paying salaries to the Technical Associates as mentioned above, an amount of Rs. 5 Crore is required.

4.3.3 Requirements of funds for five years

Table 5: Requirements of funds for Web GIS Based DSS

Sl.No.	Item	Person	Amount
1.	Salary of 15 Technical Associate/Sr. Technical associate, working at IRO, MoEFCC and FSI Rs. 50000 per person per month X 15 TAs X 12 month X 5 year = 5 Crores (including escalation)	15	5 Cr
	For current financial year and for next 5 years budget requirement		**5 Cr.**

The total funds required for this activity for five years will be Rs. 500.00 lakhs.

4.4 Forest fire monitoring including burnt area assessment

4.4.1 Introduction:

Forest fires are a recurrent phenomenon in India during fire season, presumed to be between the months of November to June. Forest fires cause incalculable loss to the timber, ground flora, fauna and loss of biodiversity in the region. The losses from the fires are long lasting and damage caused at larger scale brings about secondary changes in terms of climatic variations, ecological and biodiversity changes, loss of exotic species and wildlife. Forest Survey of India started making use of spatial data as point location, which displays active fire location based on MODIS sensor from 2004. Presently, both MODIS and SNPP-VIIRS satellite sensors are used for forest fire detection and monitoring.

Forest fires are one of the most important causes of land degradation that lead to biodiversity loss, deforestation and desertification processes. In India, most forest fires are restricted to the forest floor and are well controlled by beating the fire with the help of the local community. But, the intensity and number of fires vary greatly across the years and are dependent on mostly the moisture conditions in the forest areas. Drier winters, late monsoon onset cause fire season to aggravate and also extent which resulted in large scale damage in some of the parts of the country. The losses caused to the ecosystem are even more dangerous causing serious losses. As a result of burning of trees and forest floor, the carbon sequestered in middle/under storey vegetation and in dry twigs and litter cause most of the carbon locked to be released in the atmosphere.

4.4.2 Current status:

As per ISFR 2021, 2.81% of the forest cover is Extremely Fire Prone, 7.85% of the forest cover is Very Highly Fire Prone and 11.61% of the forest cover is Highly Fire Prone. In the fire season of 2021-2022, 2,23,333 fire detections have been observed by SNPP-VIIRS sensor & 29,675 fire detections have been observed by MODIS sensor and 13,555 large forest fire detections have been observed throughout the country. At present, alerts are being disseminated for three major programs- Pre-Fire alerts, Near Real time alerts and large forest fire alerts. Under the common alerting program (CAP), the alerts shall also be disseminated through broadcast systems and media.

4.4.3 Activities already in place:

The Following activities are in place for the past few years. A brief note on each of the activities is given below:

1. Near Real Time Alert dissemination: The near real time alerts are generated **using the detections from MODIS and SNPP-VIIRS sensor and are** disseminated to the registered subscribers as SMS alert including the PCCF(HoFF) & forest fire nodal officer of the respective states. The alerts are