Team ID	PNT2022TMID41774
Project Name	Emerging Methods For Early Detection of Forest Fires
Maximum Marks	2 Marks

Functional Features:

Δ It is found that forest fire has the characteristics of man combustibles, large area of fire, fast the spread of the speed and high intensity of fire.

Δ Natural or man-made, three conditions must be present for a wildfire to burn: fuel, oxygen, and a heat source.

Δ Firefighters call these three elements the fire triangle.

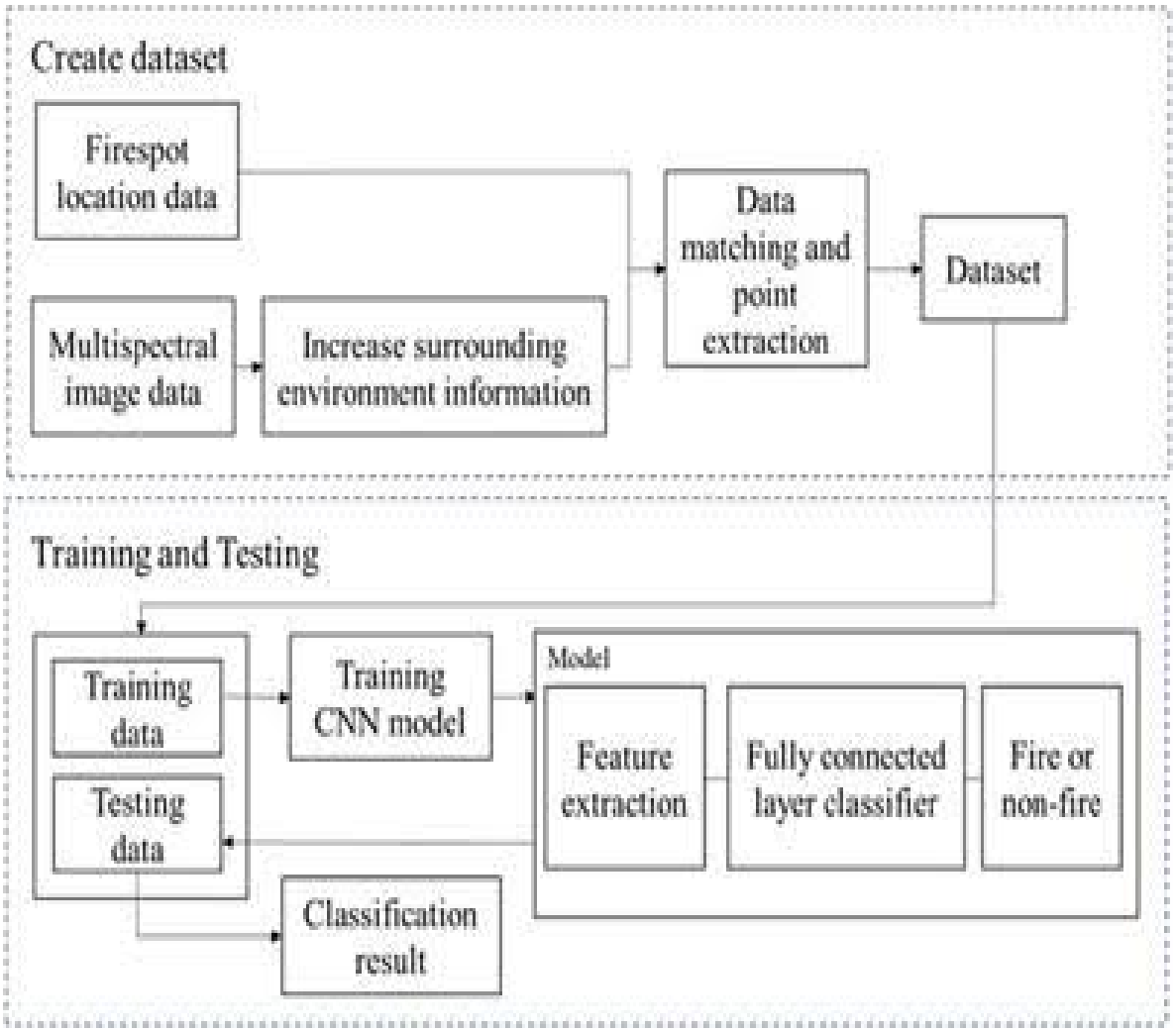
Δ Fuel is any flammable material surrounding a fire, including trees, grasses, brush, even homes.

Δ Heating. Portable heaters are the second-leading cause of home fires and home fire injuries

* Electrical Fires

* Smoking

* Candles



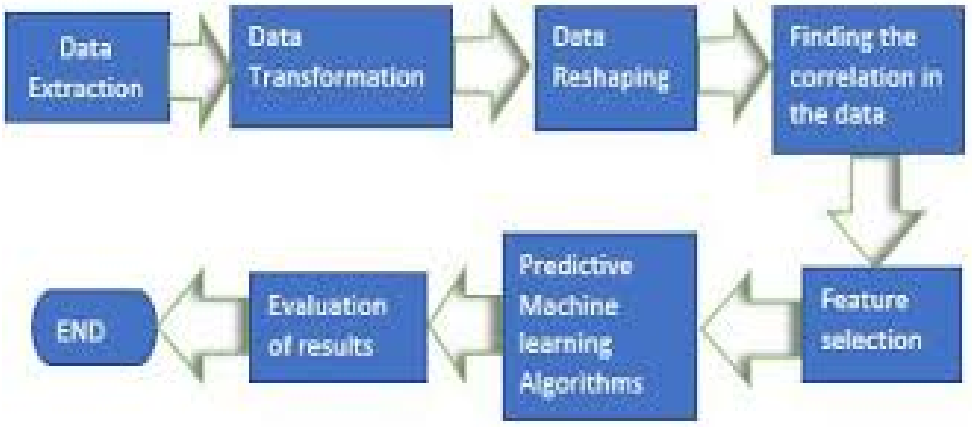
Components of Functional Features

- Naturally occurring wildfires are most frequently caused by lightning.
- There are also volcanic, meteor, and coal-seam fires, depending on the circumstances.

- ❖ Human caused wildfires can be accidental, intentional (arson), or from an act of negligence.
- ❖ For a fire to start it needs a source of ignition, a source of fuel and a source of oxygen.

❖ For example, if a smoker falls asleep with a cigarette still lit, and sets fire to the sofa, the cigarette is the source of ignition, the material on the sofa is the source of fuel and the air is the source.

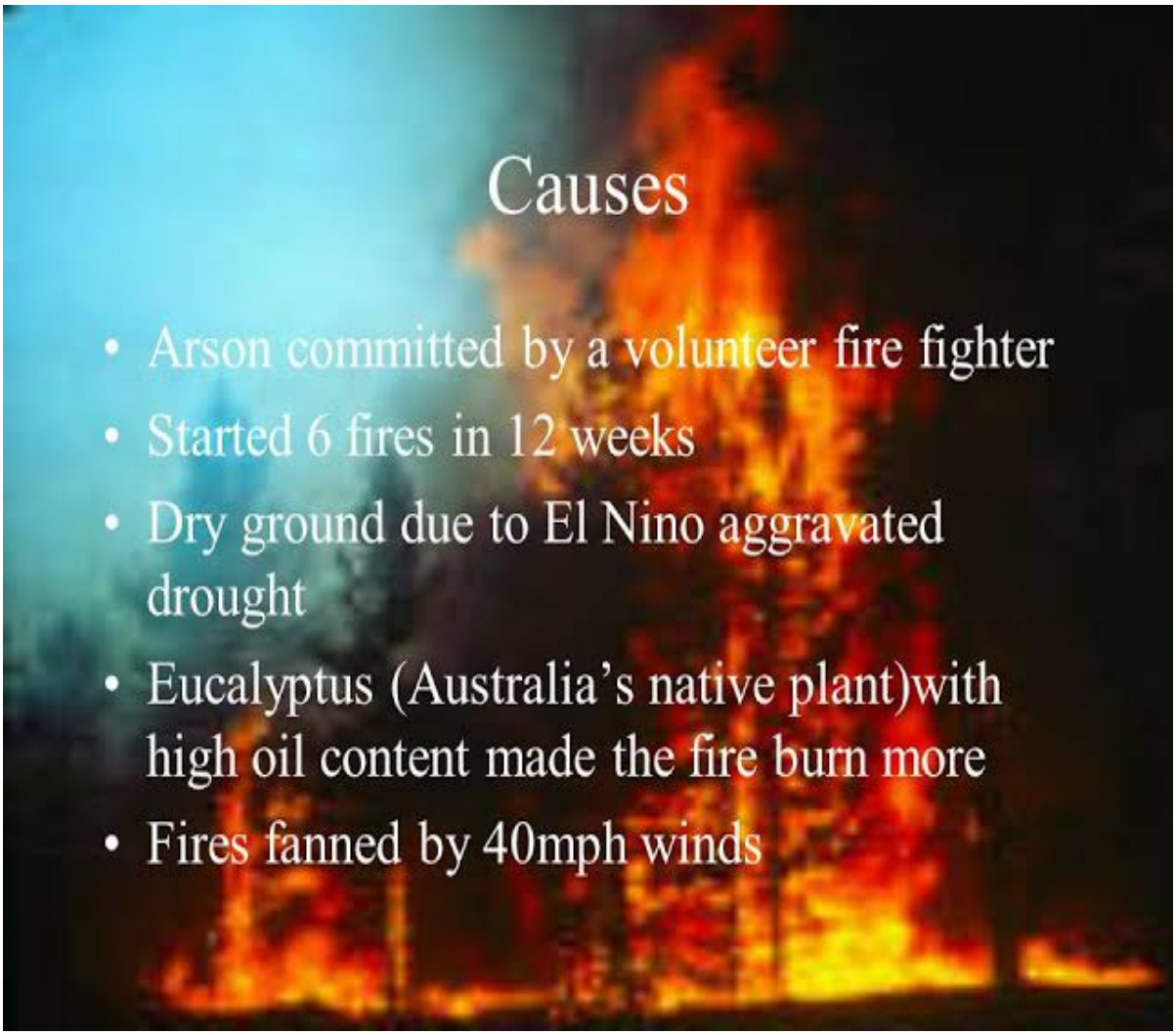
Process Flow



Process Flow:

Δ 7Most common human activities causing forest.

- forbidden or irregular □ring;
- growing tourism by car or motorcycle;
- smoking in forests;
- burning of agricultural;



Causes of features:

Δ Thus, there are three conditions essential for fire: fuel, oxygen, and heat (or ignition source).

Δ These three conditions are often represented as the fire triangle.

Δ If one of these conditions is missing, fire does not occur and if one of them is removed, fire is extinguished.

Functional Features :

1. Protective Value: increased erosion/sedimentation, introduction of weeds etc.

2. Present and Potential Value: loss of recreational use, loss of visual amenity, changed water yield and quality, extinction of species.

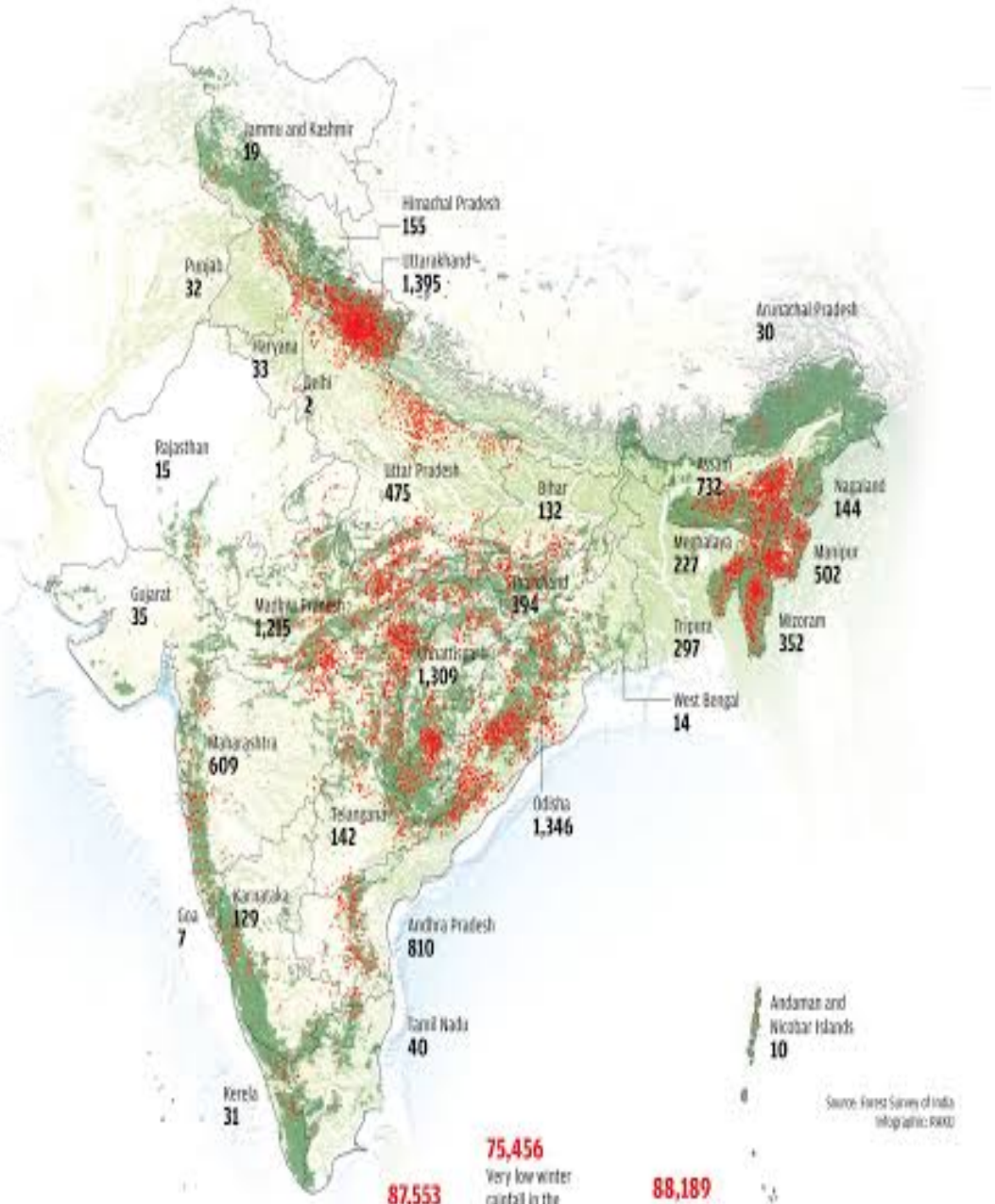
3. With What degree of difficulty can forest be re-established after fire e.g. allow the tree species to persist at a site but not the hollow dependent mammals, death of ´charismatic' animals

4. Is future protection increase in difficulty after forest fire by evs.

Forests on FIRE

Over 10,634 incidents of forest fire have been reported between April 1 and May 2, 2016. This is five times more than what was reported during the same period last year

- Number of forest fires between April 1 and May 2, 2016
- Forest areas in India



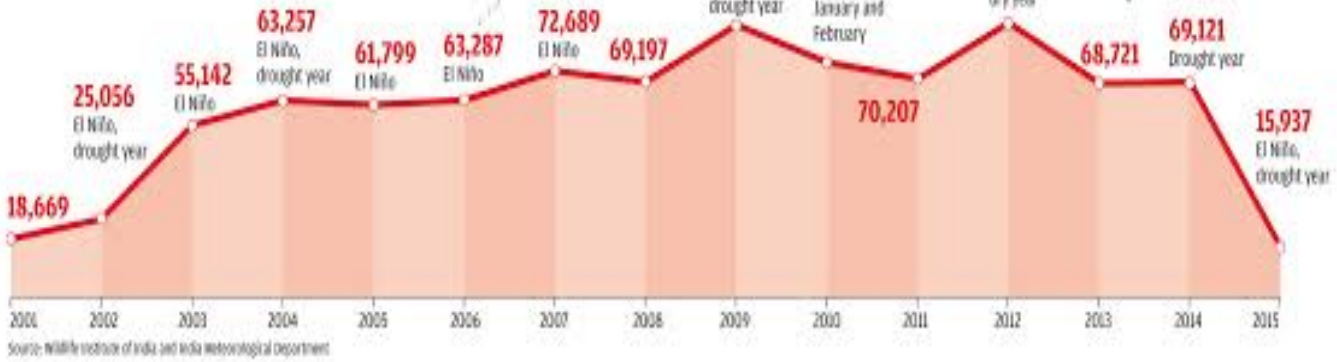
Source: Forest Survey of India
Infographic: RAMU

50 per cent of forests in India are vulnerable to fire

₹440 cr is India's annual loss due to forest fires

Burning red

Cases of forest fires over the years



Source: Wildlife Institute of India and India Meteorological Department

Δ Weather includes wind, temperature, cloudiness, moisture and air pressure.

Δ High temperatures and low humidity cause vegetation to dry and wildfires to burn rapidly.

Δ Wind not only moves wildfires across landscapes, but also supplies oxygen that can cause fires to grow swiftly.