Project Title: Emerging methods of early detection of forest fires   **Project Design Phase-I - Solution Fit**   **Team ID: PNT2022TMID53546**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`

Forest rangers

Fire officers

Common people

Tribal peoples

6. CUSTOMER CONSTRAINTS `CC`

Need to monitor the forest 24*7
Huge datastore is needed to manage data
Forest is a vast area the for the costumer himself
One simply cannot monitor those areas

5. AVAILABLE SOLUTIONS `AS`

In the existing solution , sensors and cameras are used to detect the fire. This solution is difficult to implement because there is a possiblity of false positives

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS TO BE DONE/PROBLEMS `J&P`

Detect forest fires at earlier stages and alert people about the impact and measures to extinguish

9. PROBLEM ROOT CAUSE `RC`

The main reason for fire are natural causes such as lightning and man made causes like naked flame, cigarettes and electric spark etc.

7. BEHAVIOUR `BE`

When burning fuel is exposed to oxygen from the air, a chemical reaction occurs that releases heat and generates combustion.The manner in which fuel ignites, flame develops and fire spreads. In wildland this behavior is influenced by weather and topography interact.

Focus on J&P, tap into BE, understand RC

3. TRIGGERS `TR`

When some country installs and gets high success rate at detection of forest fire it will encourage others

4. EMOTIONS: BEFORE / AFTER `EM`

customer feels frustrated and insecure because of fire and after the prediction they can feel safe.

10. YOUR SOLUTION `SL`

We are going to test a CNN(Convolutional neural network) model which collects the data from sensors, cameras and drones and gives it to the model and predicts the fire before it happens. It also gives the exact location of fire and to reduce the false positives of fire detection

8. CHANNELS OF BEHAVIOUR `CH`

Customers can share the moments through the social medias and other platform