Project Title:Emerging methods for early detection of forest fire **Project Design Phase-I - Solution Fit Template** **Team ID:** PNT2022TMID38040

Define CS, fit into CC

1.CUSTOMER SEGMENT: CS

Forest administration
Forest officers
Common people

6. CUSTOMER CONSTRAINTS CC

Need to monitor the forest 24*7
Huge datastore is needed to manage data

5. AVAILABLE SOLUTIONS AS

- Prescribed fires in fire-prone temperate forests to reduce emissions of biomass from the historic rate of wildfire losses.
- Fire control practices in Amazonian forests to avoid unintended fires that degrade the forest (such as fire breaks at forest edges).

Explore AS, differentiate

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

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

Permanent monitoring and detect forest fire accurately

9. PROBLEM ROOT CAUSE RC

- Lightning
- Spontaneous combustion of dry vegetation
- Volcanic activities
- Carelessness while Smoking or using mosquito coil or candles or camp-fires
- Arson or intentional
- Tribal ritual/tradition

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

Identify strong TR & EM

3. TRIGGERS R

Initial smoke will trigger the forest officer to take the step at earlier stage

4. EMOTIONS: BEFORE / AFTER M

Frustated due to poor netwrok connection
And misprediction of forest fire

10. YOUR SOLUTION L

Image processing,video processing,neural network are used for the early detection of forest fire

8.CHANNELS of BEHAVIOUR H

8.1 ONLINE

Monitoring the forest through survelliance camera

8.2 OFFLINE

Take survey from existing video clips

Identify strong TR & EM