EMPATHY MAP FOR EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

Medium altitude flight area (350 m to 5500 m)

Medium altitude fixed wing UAV

Low altitude flight area (10 m to 350 m)

Low altitude rotary wing UAV

Ground level

❌ NO

Permanent monitoring, data collection and processing.

Is fire detected?

✅ YES

False fire alert! Low altitude UAV returns to base. Medium altitude UAV maintains observation.

❌ NO

Is fire confirmed?

Potential fire alert! Launch low altitude UAV!

Real fire alert! Contact ground level teams! Medium altitude UAV maintains observation.

✅ YES

Low altitude UAV on-demand observation area

Low altitude UAV provides assistance to the ground level teams and performs post-fire damage assesment.

Medium Altitude UAV permanent observation area