

FOREST FIRE HAZARD: CAUSES, PREVENTION, AND THE ROLE OF FIREFIGHTERS

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Forest fires are among the most devastating natural disasters, causing extensive damage to ecosystems, threatening human lives, and contributing to global environmental problems. Understanding their causes, methods of prevention, and the role of firefighters is essential for mitigating the risks associated with forest fires.

Forest fires can be triggered by natural phenomena or human activity. The primary causes include natural causes (lightning strikes, especially during dry seasons, are a significant natural cause), volcanic eruptions or spontaneous combustion in specific climates, human activities, negligence (unattended campfires, discarded cigarette butts, or improper handling of flammable materials), deliberate acts (arson or illegal agricultural practices like slash-and-burn).

Accidental causes are sparks from machinery, power lines, or vehicles in dry areas. Environmental factors are prolonged droughts or heat waves which create conditions conducive to fire outbreaks.

Preventing forest fires requires coordinated efforts between authorities, communities, and individuals. The following measures are critical:

- public education and awareness:

Educating the public on safe practices in forested areas, such as proper disposal of waste and responsible use of fire.

- monitoring and early detection:

Installation of surveillance systems, including drones and satellite monitoring, to detect and track fire outbreaks.

- controlled burns:

Conducting prescribed burns to reduce the buildup of flammable material and prevent larger uncontrolled fires.

- regulatory measures:

Enforcing bans on activities like open fires during high-risk periods.

Firefighters are at the forefront of controlling and extinguishing forest fires, often working in extremely hazardous conditions. Their effectiveness relies on specialized skills, advanced equipment, and strategic planning.

Forest fires are a significant threat to natural and human environments. Preventive measures combined with advanced technologies and the professionalism of firefighting teams are vital in reducing their frequency and impact. While nature plays its part in the occurrence of forest fires, human responsibility and preparedness are crucial in minimizing their devastation.

By fostering awareness, enhancing prevention methods, and supporting fire services, we can protect forests and the vital ecosystems they sustain better.