

DAWANAL RAKSHAK



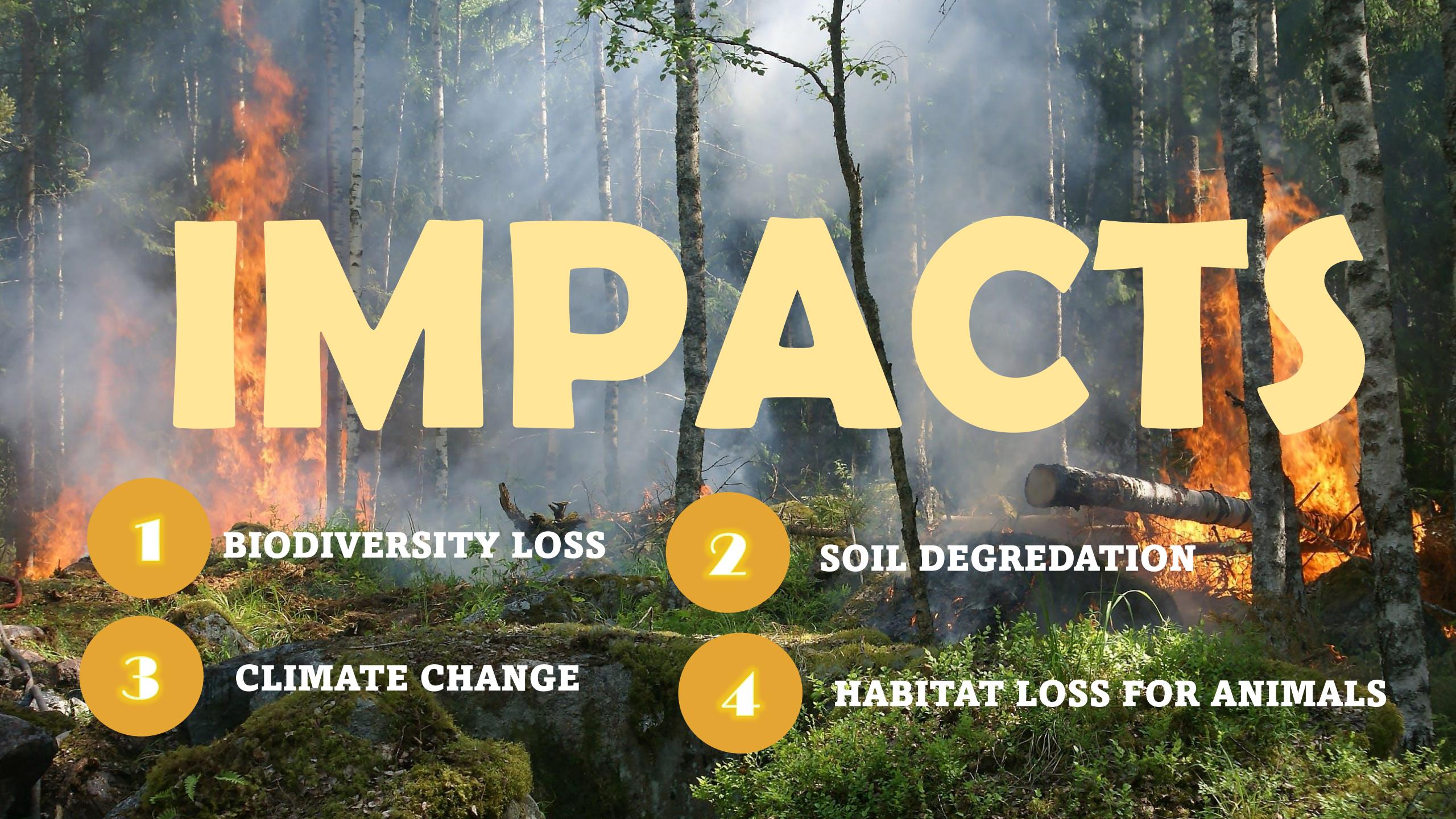
Uttarakhand Fires

A dramatic photograph of a forest fire at night. The sky is filled with intense orange and red hues from the flames. In the foreground, a small building is engulfed in fire, with bright orange flames and thick smoke billowing upwards. The background shows more of the burning forest and some buildings on a hillside to the right.

Last year, the state recorded 773 fires; this year, the tally has crossed 1,000 fires and over 2,000 hectares of forest land has been affected. The forest department claims that the majority of these forest fires are man-made.

A photograph of a forest fire. Large, bright orange and yellow flames are visible on the left and right sides, with smoke billowing upwards. In the center, the word "IMPACTS" is written in large, bold, yellow capital letters. The background shows tall, thin trees standing amidst the smoke and charred ground.

IMPACTS

A photograph of a forest fire. Large plumes of white smoke rise from the ground and between tree trunks. Bright orange and yellow flames are visible on the left and right sides, and smaller flames are seen on the ground and low-hanging branches. The background consists of many tall, thin trees with dark green foliage.

IMPACTS

1

BIODIVERSITY LOSS

2

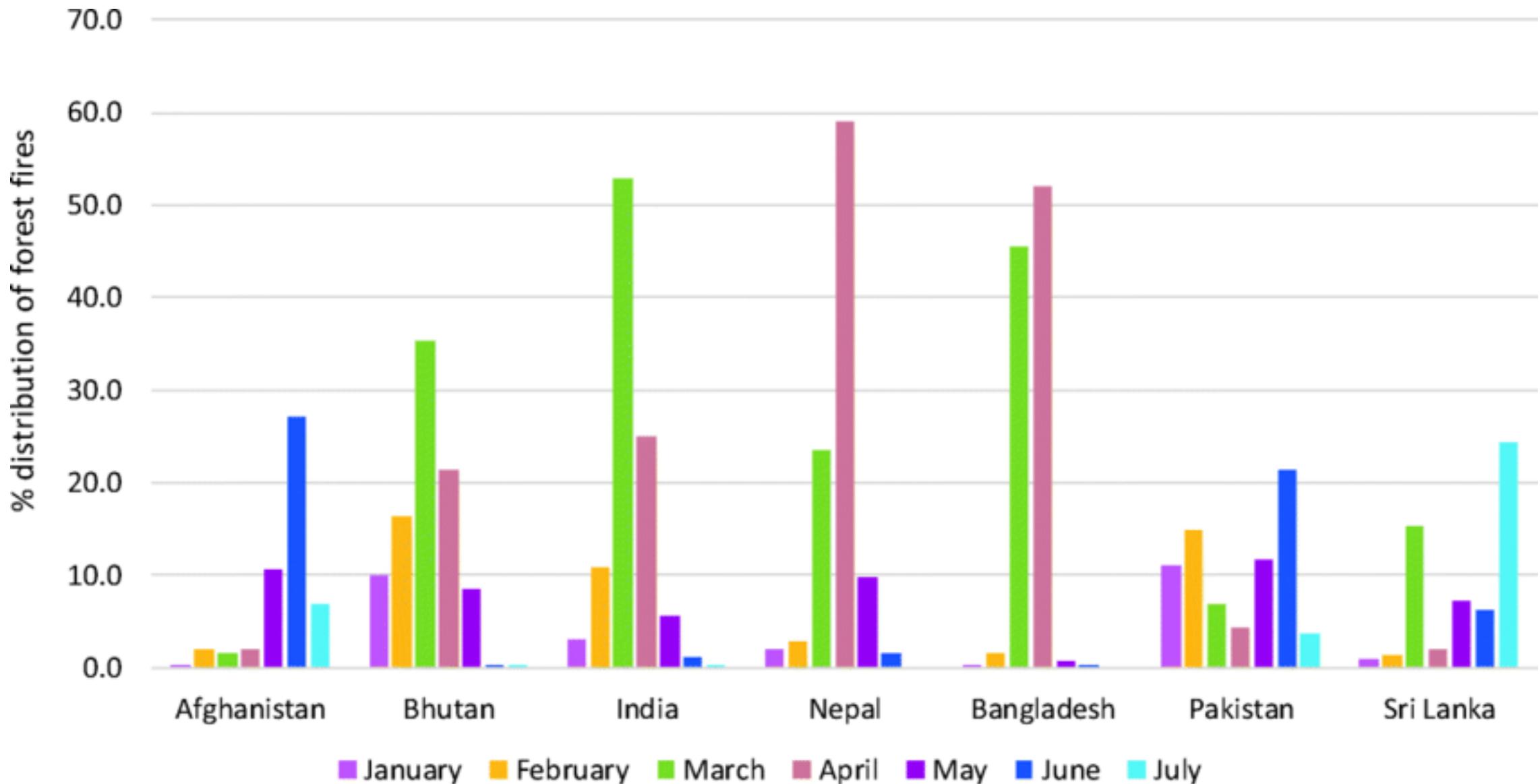
SOIL DEGRADATION

3

CLIMATE CHANGE

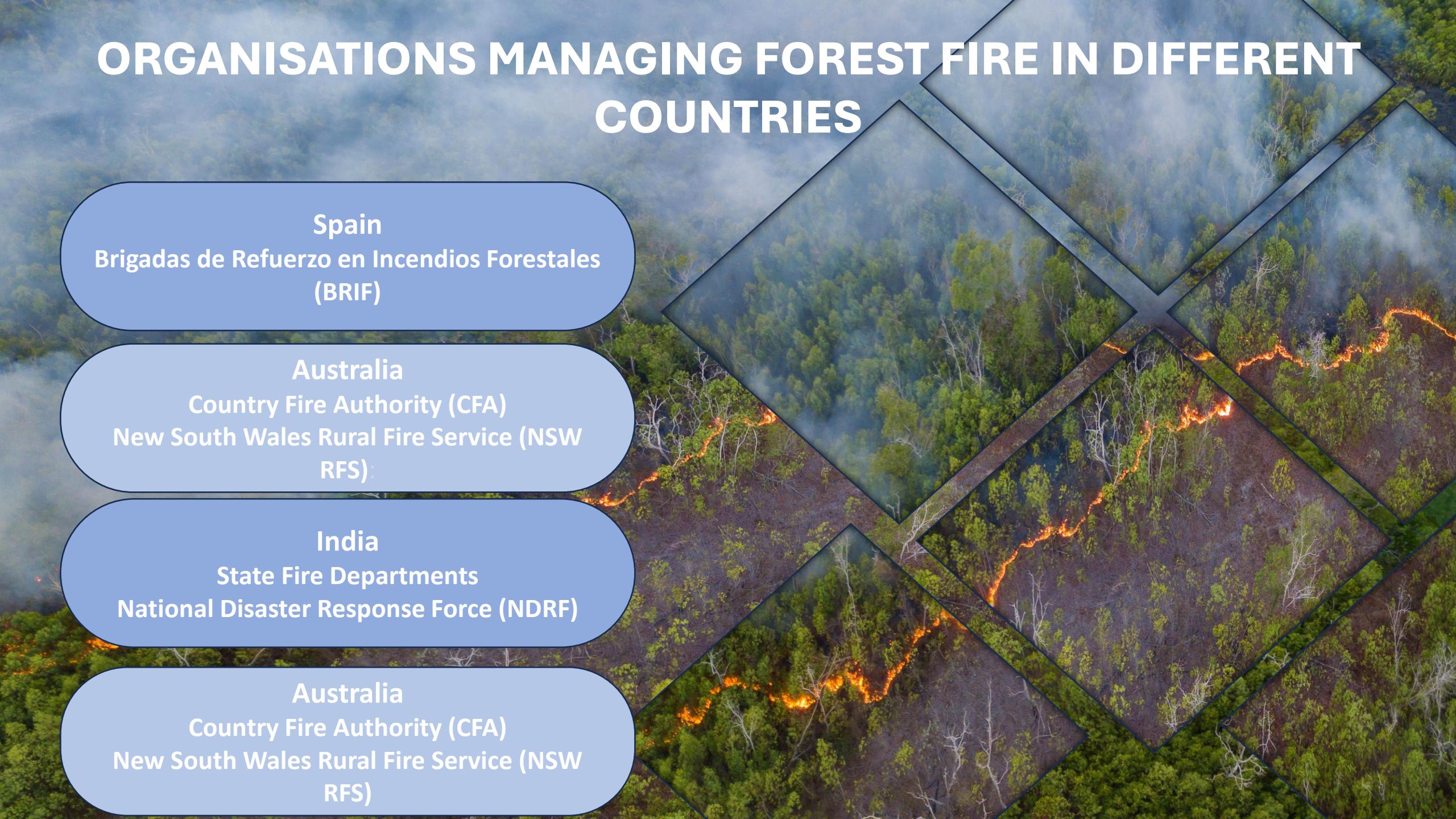
4

HABITAT LOSS FOR ANIMALS



[Distribution of forest fire occurrences in South Asian countries for...](#) | Download Scientific Diagram
(researchgate.net)

ORGANISATIONS MANAGING FOREST FIRE IN DIFFERENT COUNTRIES



Spain

Brigadas de Refuerzo en Incendios Forestales (BRIF)

Australia

Country Fire Authority (CFA)
New South Wales Rural Fire Service (NSW RFS):

India

State Fire Departments
National Disaster Response Force (NDRF)

Australia

Country Fire Authority (CFA)
New South Wales Rural Fire Service (NSW RFS)

ORGANISATIONS MANAGING FOREST FIRE IN DIFFERENT COUNTRIES

United States:

US Forest Service
National Interagency Fire Center (NIFC)
California Department of Forestry and Fire Protection (CAL FIRE)

Australia

Country Fire Authority (CFA) and Rural Fire Service (RFS)
Australian Fire and Emergency Services Authorities Council (AFAC)

Canada

Natural Resources Canada
Provincial/Territorial Fire Management Agencies

Brazil

Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA)
Brazilian Forest Service (SFB)



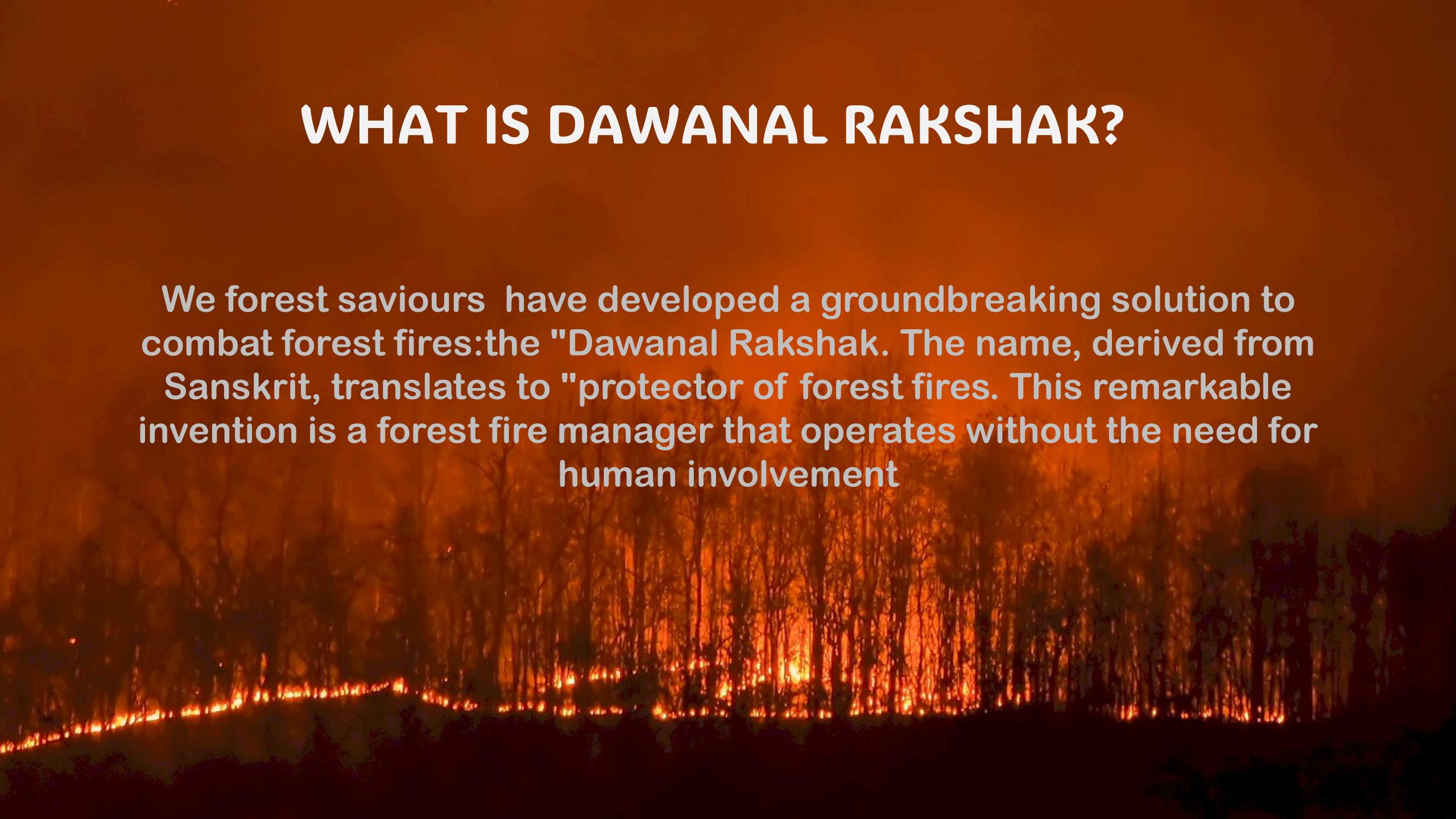


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- It can take anywhere from a few minutes to several hours for a rescue team to reach a forest fire site and start containing or extinguishing the fire. In some cases, it might take even longer, especially if the fire is in a remote or challenging location. Until the rescue team reaches the site the forests keep burning.

A photograph of a massive forest fire at night. The sky is a deep orange and red, filled with smoke and fire. In the foreground, the dark silhouettes of trees are visible against the bright flames. The fire line is clearly defined, showing a continuous line of orange and yellow flames across the landscape.

WHAT IS DAWANAL RAKSHAK?

WHAT IS DAWANAL RAKSHAK?



We forest saviours have developed a groundbreaking solution to combat forest fires: the "Dawanal Rakshak. The name, derived from Sanskrit, translates to "protector of forest fires. This remarkable invention is a forest fire manager that operates without the need for human involvement

WORKING

The "Dawanal Rakshak," is an innovative forest fire manager. It uses an AI camera for fire detection, activating a water pump to sprinkle water when the fire is confirmed. Red LEDs and a buzzer alert nearby people, while authorities are notified via WhatsApp.

ADVANTAGES:

1

Enhances safety of wildlife,
people and property

2

Rapid Response

3

Cost effective solution

4

Prevents the release of large amounts of
smoke and pollutants into the air.

Cost

The main cost is of the Water-pump. Total Indian forest cover is 800000 sq km. A 7 Horse Power pump can cover an area of 2 sq km, Costing close to rupees 10k, they last almost 10 years. Thus to cover 8 lakh sq km, it would take 4 Lakh water pumps and cost 400 crores which is less than the amount India spends on recovering from forest fires each year.