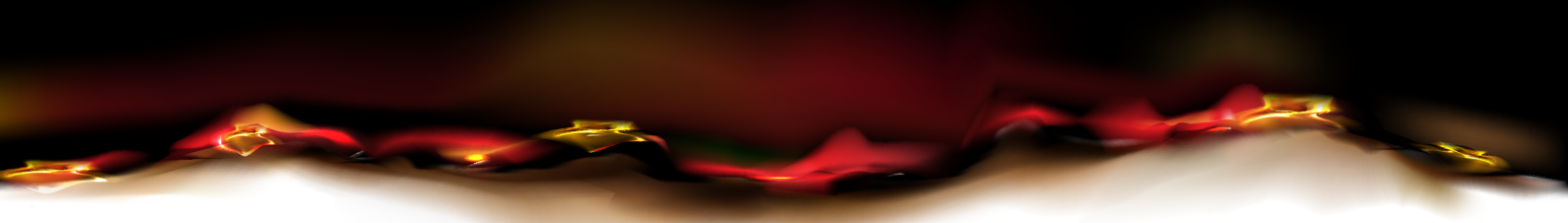




FOREST FIRE

A forest fire is a type of wildfire where an uncontrolled fire rages vegetation, generally more than 1.8 meters (6 feet) in height. It is often a disastrous fire sometimes instigated by a combustion and heat from surface and ground fires.

The risk that wildfires pose to people and the environment is increasing due to numerous factors, including, but not limited to, climate change.



CAUSES OF FOREST FIRE



IGNITION SOURCE

- Human Activities
- Lightning
- Escape Fire



WEATHER

- Wind Speed/Direction
- Air Temperature
- Relative Humidity
- Stability
- Solar Radiation



TOPOGRAPHY

- Slope
- Aspect
- Elevation

STATUS QUO

Reported time 1st April to 17th April by MOIDS, Department of Forests and Soil Conservation

| Province | Forest-fire incident |
|---------------|----------------------|
| Bagmati | 129 |
| Madhesh | 76 |
| Koshi | 71 |
| Gandaki | 35 |
| Lumbini | 114 |
| Sudurpashchim | 35 |
| Karnali | 6 |
| Total | 466 |

Factsheet

- Around 4 per cent of the global forest burns every year due to climate change and human induced interventions
- Higher incident of forest-fires in Nepal occurs between month of March and May (Pre-monsoon)
- From 2001 to 2021, Nepal lost 6.78kha of tree cover from fires and 44.6kha from all other drivers of loss.
- The year with the most tree cover loss due to fires during this period was 2009 (with 1.33 kha lost to fires – 24% of all tree cover loss for that year).

FOREST FIRE TREND IN NEPAL

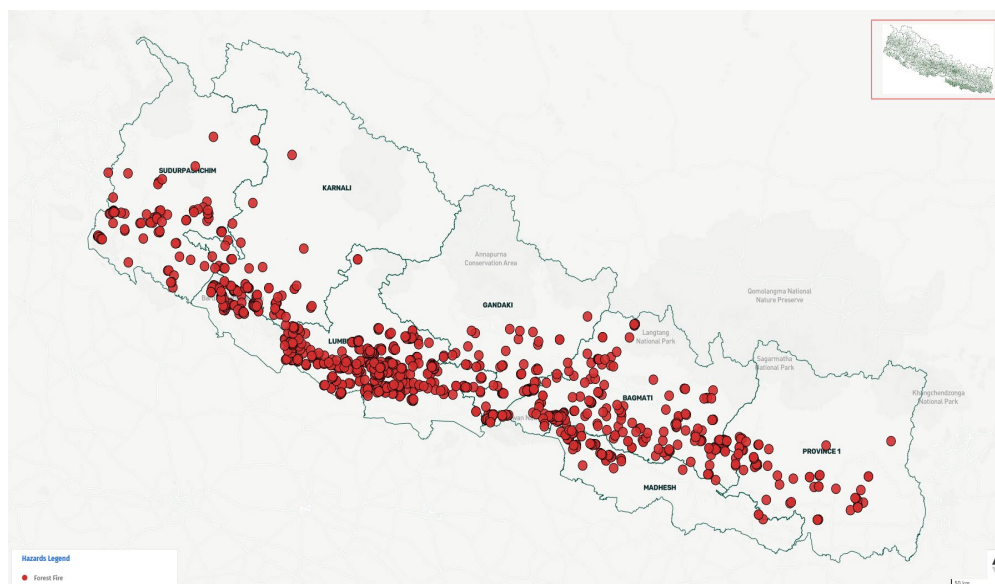
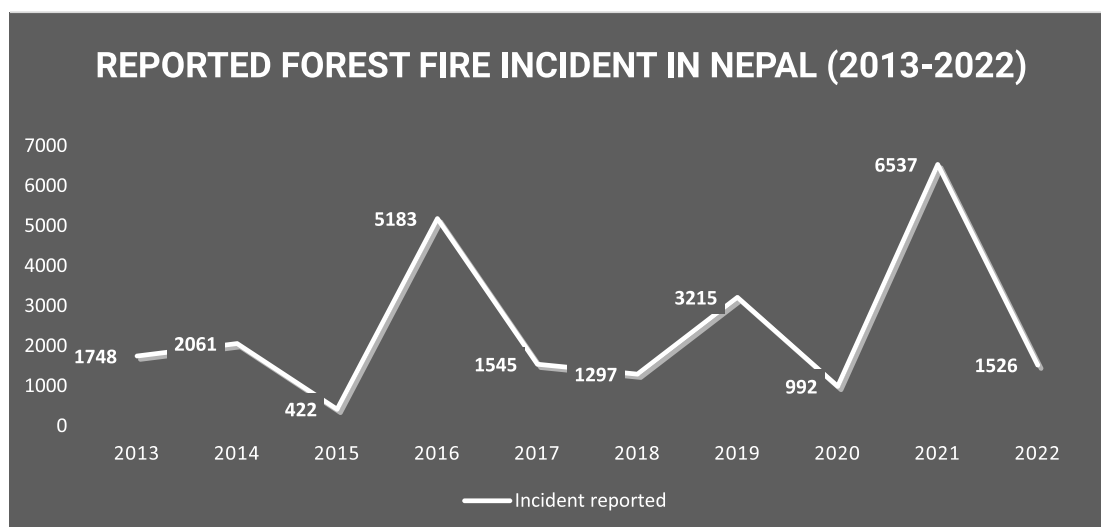


Figure 1: Forest-fire visualization (Timeframe: 1st April to 17th April, 2023) Bipad portal



Source: Data from Bipad Portal (only Include MODIS data)

IMPACTS OF FOREST FIRE

| Economic Impacts | Environmental Impacts | Societal Impacts |
|---|---|--|
| <ul style="list-style-type: none"> ● Reduction in soil fertility, stability and water infiltration and retention characteristics results in low to no agricultural production ● Loss of food sources and conversions of vegetation ● Increased cost for Rebuilding and rehabilitation ● Fatalities ● Insurance losses due to claims ● Employment ● Loss/damage of infrastructure and assets ● Fire Suppression Cost | <ul style="list-style-type: none"> ● Decreased air quality due to release of green house gases and particulate matters ● Contaminated Water ● Increase in soil erosion due to loss of vegetation ● Loss of Ecosystem and Biodiversity ● Increased desertification and land degradation | <ul style="list-style-type: none"> ● Fatalities ● Increased displaced Population ● Loss of Infrastructure / assets ● Negative affect on health ● Forced people under poverty line ● Loss of historically and culturally important nature artifacts, places and buildings <p><i>*Women and girls tend to experience greater impact from poverty, food insecurity and displacement</i></p> |

5 R's OF FOREST FIRE MANAGEMENT

Eliminating the risk of forest fire is not possible, but much can be done to manage and reduce risks.



REVIEW AND ANALYSIS

Data Collection, Analysis, Policy Review



RISK REDUCTION

Raising Awareness, Community Mobilization, Landscape management (traditional approaches, grazing, proper planning of land use)



READINESS

Early warning system, threat forecasting, pre-suppression readiness



RESPONSE

Suppression resource, community-based evacuation, community mobilization, proper planning on post fire



RECOVERY

Aid, restoration on wild life, environment, Assessing and repair infrastructures.

Researchers: Kaleli Nyaichyai; Susmita Puri

SOURCES

- [Bipad Portal](#)
- [Department of Forest and Soil Conservation](#)
- [UN Environment Program – A Rapid Response Assessment on Spreading Like Wildfire The Rising Threat of Extraordinary Landscape Fires](#)
- [Global Forest Watch](#)
- [Times of India](#)