

Doon Declaration on Forest Fires

Forest fires are increasing across the world, posing a serious threat to forest and associated terrestrial ecosystems and society. In the Himalayan region, forest fire regimes are changing due to climate change and prevalent management practices. Longer drought periods, an increase in the length of fire season, heatwaves, and management practices that encourage burning are likely to pose serious challenges for forest managers and communities in the future apart from the increase in the climate resilience building costs exponentially.

The above trends are clearly visible in the Himalayan region with the rapid increase in incidents of forest fires. As per SFR 2021, between the eight-month period (November 2020 and June 2021), nearly 21,000 forest fire incidents were reported for the state of Uttarakhand and 4,200 for Himachal Pradesh through the SNPP-VIIRS satellite sensor. 2016 is considered to be the worst fire year in recent times with approximately 4500 hectares of forest affected by fires in the state of Uttarakhand, causing 9 deaths and 17 serious fire injuries. Damage to biodiversity through such fires is largely unknown (e.g., wildlife, rare plants, soil fauna etc.).

Against this backdrop, a call for action was issued by participants of the “Workshop on Forest Fires in the Western Himalaya”, held on August 17, 2022, which included eminent ecologists, historians, civil society leaders, representatives of national-level agencies which study forest fires such as Forest Survey of India (FSI), Forest Research Institute (FRI), Indian Institute of Remote Sensing (IIRS), forest officers from Uttarakhand and Himachal Pradesh, representatives of local NGOs, think-tanks and concerned citizens. The Doon Declaration is a summary of the day’s proceedings and is put forth keeping in mind the importance of Himalayan forests on a global scale, and the global environmental commitments made by India towards climate mitigation.

The Doon Declaration consists of recommendations under three categories, viz. **Planning Preparedness and Response, Awareness and Capacity Building and Research Needs for Improved Policy Decisions**. We believe that the management of forest fires is a collective responsibility. Thus, the following points are requested to be considered as short, medium, and long-term strategies after deliberation. We further believe that an execution plan also needs to be developed for each of the below-mentioned recommendations.

a) Planning Preparedness and Response

1. We need to move from a reactive approach to a more planned approach. Medium-term plans of 5 years or more should be made rather than a syndrome of seasonal responses to fire. Hence the department of respective states (Uttarakhand (UK) and Himachal Pradesh (HP)) need to develop a comprehensive **annual forest fire action plan** in consultation with stakeholders and submit it (In Hindi and English) which is open access, transparent, and fixes the responsibility of stakeholders. The annual state-wide forest fire plans should **ideally be prepared by 30 November each year and funds ensured**.

2. **A consortium on forest fires management** to be formed involving national level agencies, State Forest Departments, civil society, and communities at UK and HP state level. We recommend that this is completed before 31st December 2022.

3. **Forest Departments need to be better resourced**. Frontline staff such as forest guards need to be given **discrete responsibilities and better equipment**. **Quality safety gear** must be provided to forest guards and community firefighters. The **timely release of funds for firefighting is critical**.

4. **A cadre of local youth to be developed for mitigation and management of forest fires**. This **carder could be termed as Van Agni Warriors¹** and provided specialized training in fire management and mitigation. These forest fire-fighters must be provided with **modern safety**

¹ One of the following name or any other may also be considered 1. Van Agni Prabandhak 2. Van Agni Niyantak 3. Van Agni Prehari

equipment and given **incentives** such as **life insurance and certification** which provides them better access to opportunities.

5. **A specialized forest fire wing may be constituted under NDRF.** Modern training techniques on fire fighting in different forest types are to be provided and this forest-fire group to work in collaboration with forest guards and identified community **Van Agni Warriors**.

6. Forest user institutions, such as **Van-Panchayats to be incentivized to protect against fire.** A system of rewards, funded through CAMPA can be initiated to encourage an increase in carbon storage in forests.

b) Awareness and Capacity Building

6. Campaigns and training of local communities on fire prevention are strongly recommended. Programs such as **Van Agni Warriors** to help strengthen community participation in fire-fighting, and incentives to prevent the burning of Chir needles (pirool) are recommended.

7. From primary schools to universities **forest fire issues should be taught** to students as part of **environmental education**, and biodiversity campaigns **could be part of the National Service Scheme (NSS) and the National Cadets Corps (NCC)**. NSS and NCC activities can also be associated with the making of *chaal-taals*, litter removal (pirool removal), and making fire lines wherever it is possible near schools/colleges or universities. Dry conditions as a result of climate change are a major concern, and efforts to increase soil and moisture conservation within a forest. **Students should be well aware of climate change** and the **urgent need of reducing plastic** use as plastic is one of the major reasons behind the spread of forest fires in many ways.

8. Large-scale and continuous awareness programs targeted at tourists to be conducted with the help of social media, and at locations such as bus stops, railway stations, forests, and other checkpoints and hotels/restaurants for environmentally conscious tourism. Visitors must be sensitized of the dangers of forest fires and how to prevent accidental ignitions.

9. There is an urgent need to inform political leadership at local, state, and national levels about the impact of forest fires for better decision-making and supporting such initiatives. Parallely, media which plays an important role in shaping public opinion needs to be sensitized. It is

important that journalists involved in environmental reporting are sensitized for accurate reporting on forest fires, to avoid fear-psychosis on one hand and encourage better environmental behavior on the other.

10. Social -Behavioral change is imperative- large-scale awareness programs are required but it could be best implemented by influencing future change makers by introducing fire management in the syllabus at all levels of education under environmental studies. It is advocated that central sector schemes of the Government of India scheme i.e., NSS may include fuel load removal as an activity.

11. Village Fire Fund can be developed from the absentees, non-residents, and well-wishers of the village forests. The best firefighting panchayats or villages should be annually awarded on Himalaya Diwas. It will give some sense to Himalaya Diwas functions, which currently are uninspiring.

c) Research Needs for Improved Policy Decisions

12. There is a need to understand how climate change will impact forest fires. A robust scientific and multidisciplinary research plan considering ecological and societal impacts along with the driving and causative factors to be undertaken. Quantify how forest fires impact carbon storage and biodiversity and will impact India's international commitments such as NDCs under the Paris agreement as well as Aichi biodiversity targets and SDGs. It needs to be established whether mixed forests are a better bet to counter forest fires and climate change simultaneously.

13. While the ecological importance of Chir pine (*Pinus roxburghii*) must be recognized as it can exist in conditions where few other species can thrive, measures to discourage the spread of chir into oak forests need to be undertaken by preventing the degradation of banj oak forests. The constraints that lead to people lighting fires in Chir forests need to be better understood.

14. The blanket ban on green felling of Chir Pine (*Pinus roxburghii*) must be revisited by a high-power committee group comprising Himalayan ecologists, policymakers, social scientists, civil society members, and community-level conservationists for evaluation of its ecological and societal impacts. However, **the ban on other forests and their associated species should be continued**. Mature Chir pine (*Pinus roxburghii*) trees in Banj oak (*Quercus leucotricophora*) and Tilong Oak (*Quercus floribunda*) and other forests should be tinned.

15. Villagers **should be allowed to use mature Chir Pine (*Pinus roxburghii*)** trees growing on their private lands for personal use and for the social good of communities

On behalf of the experts



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