



Towards Fire-Resilient Landscapes

From fire crisis to fire resilience

Wildfires have become a major threat to tropical forests, livelihoods, and climate goals. They are unplanned, uncontrolled fires that can start naturally or through human activity.

In 2024, they caused **nearly half** of all tropical primary forest loss, driving deforestation and releasing vast amounts of carbon. These fires are part of a vicious cycle: as forests burn, they worsen climate change, which in turn fuels longer and more destructive fire seasons.

For Indigenous Peoples and local communities (IPs and LCs), this crisis is deeply personal. They face the smoke and flames **before anyone else**, acting as frontline responders. They are best placed to prevent fires but cannot do this alone. Current responses remain mostly reactive, focused on suppression rather than prevention.

They are often disconnected from local realities. They fail to address root causes, such as unsustainable land use and weak governance, while overlooking the crucial knowledge and role of IPs and LCs.

A new paradigm is needed; one that focuses on making landscapes more fire-resilient by recognising wildfire prevention as a core strategy, placing IPs and LCs at the centre, and strengthening collaboration between communities, governments, and other actors.

Tropenbos International and its partners have developed the Fire-Resilient Landscapes approach to put this into practice: moving from reaction to prevention, from exclusion to inclusion, and from fragmented efforts to coordinated and accountable governance.



What we do

Together with IPs and LCs, governments, and the private sector, we apply this approach in forest frontier areas across Africa, Asia, and Latin America. Our approach is rooted in the comprehensive **Integrated Fire Management** (IFM) framework, linking this with inclusive landscape governance, IP and LC rights and inclusion, and a landscape approach. Through this, prevention and preparedness become shared responsibilities, embedded in decision-making at all levels.

Our approach is structured around four reinforcing pillars:



Collective learning

We bring together scientists, Indigenous leaders, and local authorities to analyse fire dynamics, develop a joint vision for fire-resilience in their landscape and jointly design, implement and monitor prevention strategies. This builds trust, ownership, and actionable knowledge.



Empowering communities

We strengthen the rights and capacities of Indigenous Peoples and local communities, with special attention to women and youth, to enhance their role in wildfire prevention through better land-use practices, effective monitoring, and active participation in decision-making.



Improved practices and policies

We work with local and national governments to embed locally led inclusive, sustainable and effective fire management policies and practices.



Shared governance

We promote inclusive, multi-level coordination for wildfire prevention, response, and recovery among communities, companies, and authorities. This approach is grounded in partnership, equity, and accountability, with a key role for Indigenous Peoples and local communities.

Together, these pillars foster collective action to reduce wildfire risk and create enabling conditions for fire-resilient landscapes.

Evidence of Impact

By the end of 2024, our work on wildfire prevention had improved fire resilience across:



11 million
hectares

and benefited:



43,000+
people

These examples highlight some of the results:



Ghana

[Watch video](#)

Through multi-stakeholder dialogues, traditional fire knowledge was integrated into district planning, and we supported community volunteers and district fire committees to strengthen wildfire prevention in cocoa producing landscapes. As a result, fire incidents in target areas dropped to less than 50% of previous peaks, improving soil health and cocoa yields.



Uganda

[Watch video](#)

In the Bugoma–Budongo landscape, we worked with communities, authorities, and private companies to co-develop a **local fire management strategy**. Through multi-stakeholder dialogue, the strategy was integrated into district plans and budgets, strengthening coordination and securing government support for wildfire prevention.



Ethiopia

We studied *experiences with wildfire management* and worked with federal and regional authorities to develop a National Integrated Fire Management System. We have also been working with Abogerebs (Councils of Elders) to coordinate wildfire responses and develop field pilots to strengthen fire resilience and local livelihoods.



Indonesia

 [Watch video](#)

In West Kalimantan, we worked with local authorities and communities to develop a *peatland wildfire prevention plan* covering 80,000 hectares. Landscape implementation is far advanced, focusing on canal blocking to restore wet peatland conditions and reduce fire risks, while promoting alternative livelihoods through peat-adapted agriculture and community forestry. This model is now scaled to district level.



Bolivia

 [Watch video](#)

In the Guarayos and Chiquitanía landscapes, we worked with IPs and LCs to *strengthen wildfire prevention* through training, fire brigades, and community planning. Together, 57 brigades manage 200,000 hectares and carried out more than 200 prevention activities. As a result, the Indigenous Territory of Lomerío limited fire damage to about 4% of its area in 2024, compared with 70% in 2019.

Across these landscapes, communities are taking ownership, and governments are embedding prevention in policy and planning.

Sharing knowledge and scaling

Beyond our work at landscape and national levels, we engage globally to share knowledge, support cross-country learning, and inform policies that contribute to fire-resilient landscapes.

We published *Towards Fire-smart Landscapes*, featuring 26 articles from 15 countries and over 100 contributors, showcasing practical solutions and reflections on fire management.

In addition to sharing knowledge and facilitating dialogue, we have been developing practical tools that can be applied across contexts, such as a method to assess the cost–benefit and impact of fire-resilient landscape approaches.

We have organized high-profile sessions at *COP27*, *COP29*, the *8th International Wildland Fire Conference*, and *CBD COP16 in Cali*, including recommendations on how to include wildfires in Nationally Determined Contributions (NDCs).

In 2025, we hosted *Regional Fire Dialogues in the Amazon and Southeast Asia* to amplify IP and LC voices, facilitate regional learning, and co-create solutions with policymakers, researchers, and strategic partners. Together with RECOFTC we co-hosted a plenary session on *Community-Based Fire Management* at the FAO Global Fire Management Hub Meeting. We also led a *Joint Statement of Support* for the 'Call to Action on Integrated Fire Management and Wildfire Resilience' at COP30 in Belém, Brazil, helping to build global momentum for collaborative action on wildfire prevention.



Lessons and way forward

Our experience shows that fire-resilient landscapes are best achieved through a combination of wildfire prevention, inclusive governance, and locally led action.

Below are five key lessons that shape the way forward:

- 1 Prevention works better than suppression:** Investing in early warning, training, and sustainable land use reduces both risk and cost, while empowering those most exposed to fires. Long-term and flexible funding is needed to keep overall prevention efforts going.
- 2 Local people must lead:** When IPs and LCs have recognised rights, clear roles, and access to resources, fire management becomes more effective. Their experience with controlled burning, early detection, and collective fire management should guide policies and be integrated into government planning and training systems.
- 3 Inclusive governance strengthens coordination and accountability:** Multi-stakeholder platforms and local institutions—such as municipalities and existing traditional community bodies—help align actions and build shared responsibility for prevention and long-term resilience.
- 4 Policies and budgets must align:** National policies such as NDCs, climate strategies, and bylaws only make a difference when they are linked to local mandates and budgets, and when there is sufficient capacity for implementation.
- 5 Solutions last when they are locally owned:** Tools and practices gain traction when developed together with communities, embedded in local institutions, and linked to improved livelihoods.

From lessons to impact

In recent years, we have worked with communities, companies, and governments to reduce wildfire risks in forested landscapes across the tropics. We have learned that prevention requires coordinated, long-term commitment—shifting from reaction to prevention, and from exclusion to inclusive governance and partnership.

The experience of Tropenbos International and its partners with working towards fire-resilient landscapes shows that this is possible. To accelerate the transformation, governments need to better integrate wildfire prevention into land-use, climate, and development plans, setting measurable, time-bound targets within NDCs, biodiversity strategies, and disaster-risk frameworks. At the same time, the international community must treat wildfire prevention as a global public good, invest accordingly, and create finance mechanisms that reward risk reduction and support Indigenous- and community-led action.

We invite partners and donors to join us in scaling fire-resilient landscapes by strengthening community-led action and inclusive governance, improving coordination across sectors, and mobilising sustainable finance for wildfire prevention. Together, we can make fire-resilient landscapes a cornerstone of climate adaptation, mitigation, biodiversity conservation, and sustainable livelihoods.

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