Headline

Prevention and control of forest fires and Forest restoration in Bolivia

Domains of change

Please mark each domain that is significantly covered within the case study. At least one box should be marked, and as many as appropriate. You should only mark a box if there is reported change, not if it is only expected in the future.

Changes in the **lives** of people facing poverty, marginalisation or vulnerability, and/or the realisation of their rights	
Changes in laws, **policies** and practices that affect people's rights	
Changes in the **capacity** of organisations and communities to support people's rights;	X
Changes in **partnerships** and collaborations that support people's rights;	X
Changes in the **participation** of groups facing poverty, marginalisation or vulnerability in their own development	X
Changes in **local leadership** and ownership of development and humanitarian work.	

Basic Information

Name of Danish CSO	*Forests of the World*
Name of Southern partner(s)	*APCOB*
Year of submission	*2023*
Name of project / programme / approach	*Project: Green solutions to the global climate crisis, inequality and biodiversity loss in the Bolivian Chiquitania* *Program: Green Solutions to the Global Climate, Inequality & Biodiversity Crisis*
Project / programme period	*2022-2025*
Country	*Bolivia*
Constituency	*Indigenous Territory of Monte Verde in the Chiquitania region. The initiative includes 22 communities in Monte Verde and 29 communities in Lomerio. In total a population of approx. 900 families*
Summary (1000 characters only, including spaces)	*Forest fires have intensified in the Chiquitania region in Eastern Bolivia due to climate change and an increase in slash and burn practices to convert forested land into agricultural land.* *In 2019 more than 340,000 ha of dry Chiquitano forest was burned in catastrophic forest fires affecting not only the forest and its biodiversity, but also 63 communities in the Indigenous Territories of Monte Verde and Lomerío, who suffered loss of their assets and annual crops.* *Forest fire prevention, control and forest restoration have shown to reduce the amount and scope of forest fires by collaborating and coordinating the preventive initiatives with a large array of stakeholders in the affected areas. We have positive results and need to keep the attention on this trend to secure the existence of the Chiquitano dry forests in Bolivia.*

Context

In Monte Verde and Lomerio in 2019, more than 340,000 ha of dry Chiquitano forest was burned and it affected not only the forest and its biodiversity, but also 63 communities in the Indigenous Territories who suffered loss of crops. Most fires started as slash and burn practices that ran out of control. The changing climate in the Chiquitanía region is creating longer periods of drought, higher temperatures and strong winds. The change of the local climate is due to global climate change and the loss of forest is due to expansion of the agricultural frontier. These climatic changes have created favourable conditions for the rapid growth of forest fires that increase forest degradation and biodiversity loss.

In 2019, the lack of preparedness and capacity to combat the disastrous forest fires among state institutions, civil society, indigenous communities and their organisations became evident and resulted in a weak response. This showed that a coordinated and organised approach was necessary to extinguish the fires and prevent future outbreaks.

In the aftermath of the destructive fires, concerted efforts were initiated to establish local fire brigades in Monte Verde and Lomerio, enabling swift response and firefighting capabilities. Additionally, measures were undertaken to mitigate the risk of forest fires and restore areas affected by fires.

Since 2019 Forests of the World have been actively involved in supporting a series of initiatives to prevent forest fires and restore affected areas in Monte Verde and Lomerio. The restoration activities prioritise replanting native tree species, thereby safeguarding biodiversity and preserving the existing ecosystem. Notably, the implementation of these initiatives has resulted in a significant reduction in the extent of areas affected by forest fires since 2019 (figure 1 and 2). Since 2022 these efforts have been financed partly by Danida.

Figure 1. Photo of forest fire in Monte Verde. Source: APCOB, Bolivia.

Objectives

The overall objective of the initiative is to conserve and safeguard the forest of the Indigenous Territories of Monte Verde and Lomerio. The focus of the initiative is a comprehensive approach encompassing prevention of forest fires, controlling forest fires and restoring burned forest areas to secure the livelihoods of the indigenous communities living in the forest and conserve biodiversity.

We work at different organisational levels: We engage with the local authorities of the communities situated within the Monte Verde and Lomerio Territories, and collaborate closely with the indigenous organisations that represent these territories. Additionally, we forge partnerships with both public and private institutions. Cooperation and coordination with other non-profit organisations and stakeholders takes place at the municipal "Platform for Fire Prevention and Management", a collective forum created after the devastating forest fires in 2019 to proactively combat and manage forest fires within the region. Forests of the World contributed to the elaboration of the "Integral Fire Management Plan", which is a strategic instrument describing a set of actions for fire management and the integral management of fire in the Monte Verde Territory.

Change

As part of the forest prevention initiatives successional agroforestry systems were implemented called "Agriculture Without Burning" as pilot projects where land is prepared without the use of fire. These pilot projects have been conducted in three communities. The objective is to demonstrate that fields can be prepared without slash and burn practices to reduce the use of fire and prevent forest fires. Another advantage of leaving out fire in land preparation is that it conserves more natural fertilisers in soil and is more sustainable in the long run. Successional agroforestry allows farmers to produce a combination of crops in the same plot of land – both annual crops, such as maize and cassava, and perennial crops, such as banana and coffee.

To effectively prevent forest fires, we and our local partners launched a forest fire prevention campaign called "Something of Ours is Burning". The campaign consists of radio spots and social media videos to reach the target groups, which include local communities, with a specific focus on hunters, fishermen, farmers, ranchers, forest workers, housewives, and the youth.

To address the challenge of forest fires from a normative approach, internal norms for fire management were set up by the Territorial Governments. The norms consist of a fire calendar indicating when fire usage is permissible and when it is not, accompanied by a set of sanctions to be applied in cases of non-compliance.

To enhance the capability of controlling forest fires, we provided training and equipment to twelve communities in the Indigenous Territory of Monte Verde and ten communities in the Indigenous Territory of Lomerío. Additionally, to enhance coordination and communication of fire-related actions, we helped establish a “Fire Alert Network" consisting of 77 members from communities and organisations. The network consists of community fire brigades, volunteer fire chiefs, municipal technicians and local institutions who share real-time information on fire outbreaks, and thus help to coordinate actions in the field.

To restore the forest areas that have been most affected, restoration plans have been implemented in ten communities in the Indigenous Territory of Monte Verde. These efforts contributed to the forest recovery and restoration of agroforestry systems contributing to local food security.

To date, 744 ha of forest have been restored, predominantly in production forest, while an additional 10,000 ha of native forests are being restored. Two restoration plans, in the communities of Rio Blanco and Nokoborema, have been certified by Preferred by Natures’ Ecosystem Restoration Standard, marking them as the first forest restoration plans in Bolivia to obtain this certification.

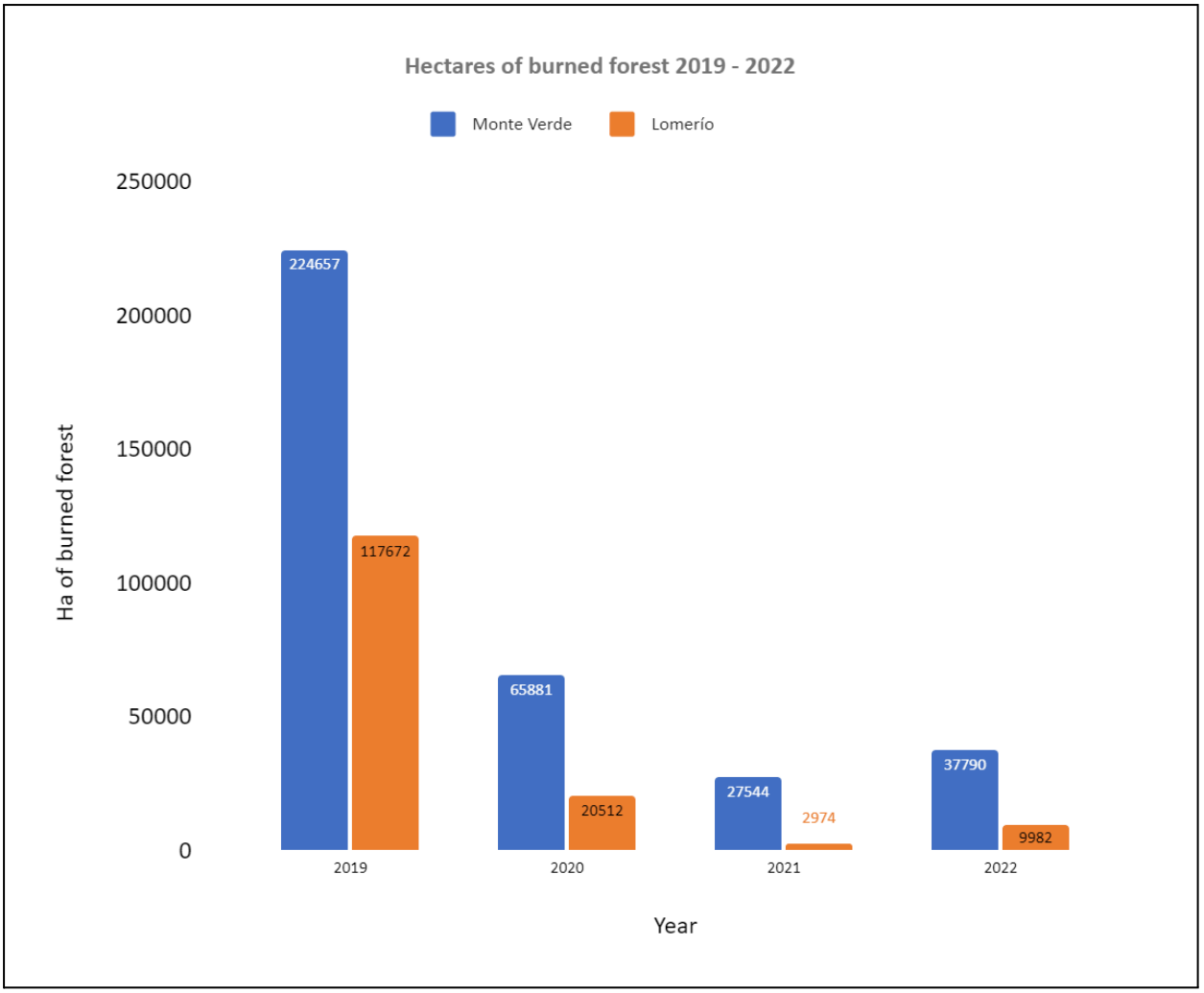


Figure 2. Hectares of burned forest in the Indigenous Territories of Monte Verde and Lomerio. Data from: https://firms.modaps.eosdis.nasa.gov/active_fire/

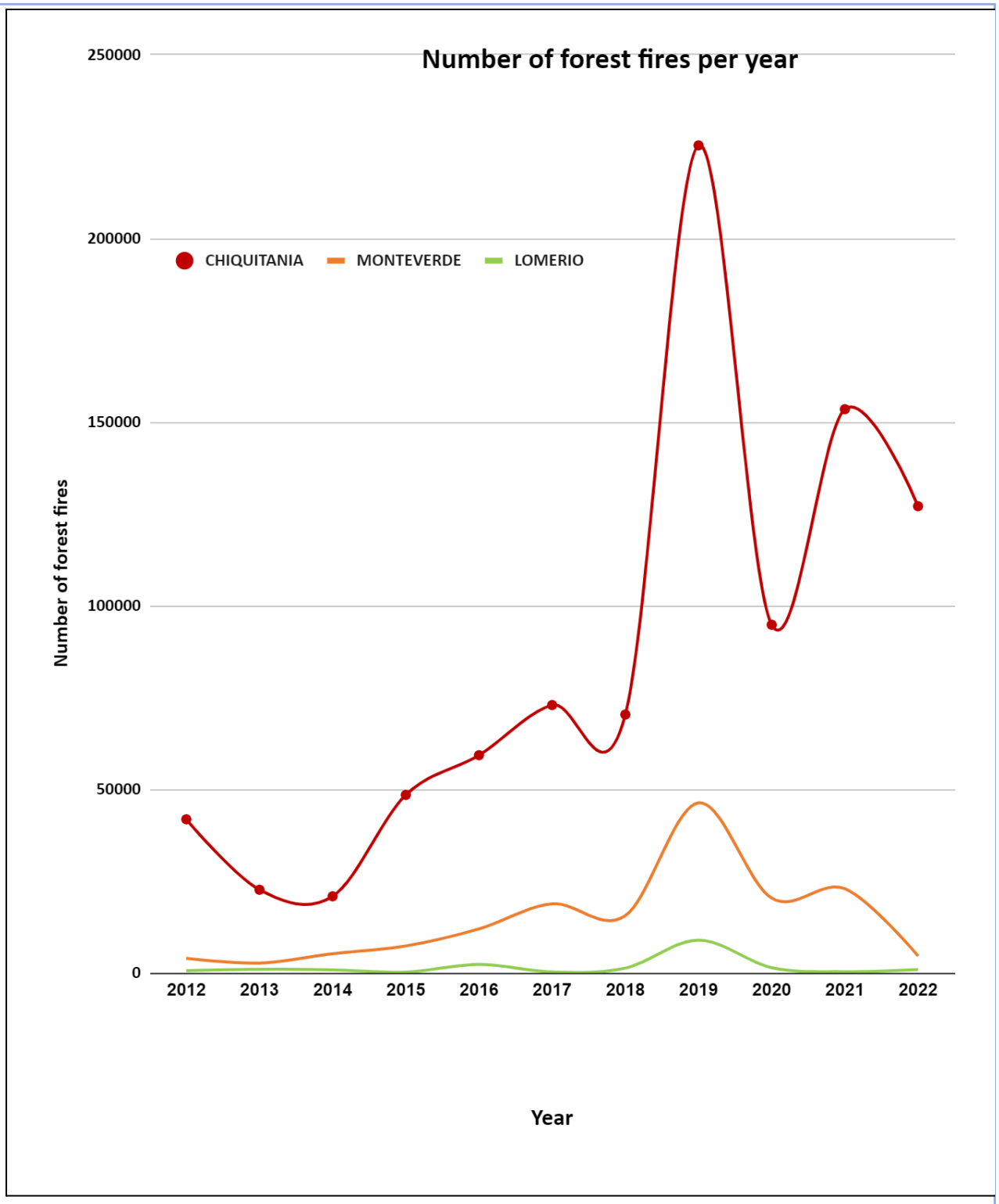


Figure 3. Number of forest fires per year in the Indigenous Territories of Monte Verde and Lomerio.

Contribution

The initiatives focusing on prevention, control and restoration have had a positive impact in reducing the extent and frequency of forest fires in the Indigenous Territories. These initiatives have prioritised climate and biodiversity conservation, and emphasised the importance of local food security for the communities.

The magnitude of the 2019 forest fires brought together stakeholders from many different sectors, fostering collaboration and united efforts toward a common cause. This collaboration has made it possible

to establish the "Platform for fire prevention and management" and the development of the "Integral Fire Management Plan" for the Territories, creating shared platforms for concerted action against fires.

The initiatives to prevent, control and restore areas affected by forest fires have reduced the occurrence of forest fires within the Indigenous Territories. However, sustaining the positive trend requires continuous and dedicated efforts. It is essential to recognise that the attention and support from international organisations, including emergency aid and financial assistance often peak immediately after a catastrophe, as we saw after the forest fires in 2019. However, it is crucial to continue the preventive work – also when media attention shifts to other crises. This is necessary to ensure the continuity of the positive developments and secure a sustainable future for the forests of Monte Verde and Lomerío.

The dedication and continued efforts of Forest of the World enabled by Danida funds in 2022 have proven instrumental in driving and sustaining the positive changes in the Indigenous Territories.

Lessons

At the time the forest restoration process was initiated in the field, the communities were going through a difficult time due to the loss of their crops, deteriorating water sources, and decreasing incomes. Motivating them to actively engage in forest restoration proved difficult. However, the motivation for the initiative arose through meaningful dialogue, providing solutions to their immediate concerns, such as revitalising productive areas close to the communities. We provided tangible solutions through agroforestry systems, donation of seeds, provision of tree seedlings for restoration, tools and payment for restoration actions in distant forest areas.

An important lesson learned is that community ownership and integration of restoration processes into their own strategies and community development plans are crucial. When the restoration processes are appropriated by the communities as part of their own strategies or community development plan, i.e. as part of their proposals to conserve their livelihoods, they will be the main actors in working for the restoration of their forests and productive areas.

When working with indigenous communities, restoration processes cannot be applied only from an ecological approach, but must also be approached from the perspective of restoring their livelihoods, because they live in and are part of the ecosystem.

The development of communal restoration plans, based on local needs, cultural traditions and indigenous knowledge of the ecosystem, has proven to be a valuable participatory tool. These plans facilitate participatory dialogue and joint reflection, integrating both traditional and academic knowledge to achieve the best possible results. By incorporating the insights of local communities, these plans ensure the restoration efforts align with their specific context and aspirations.

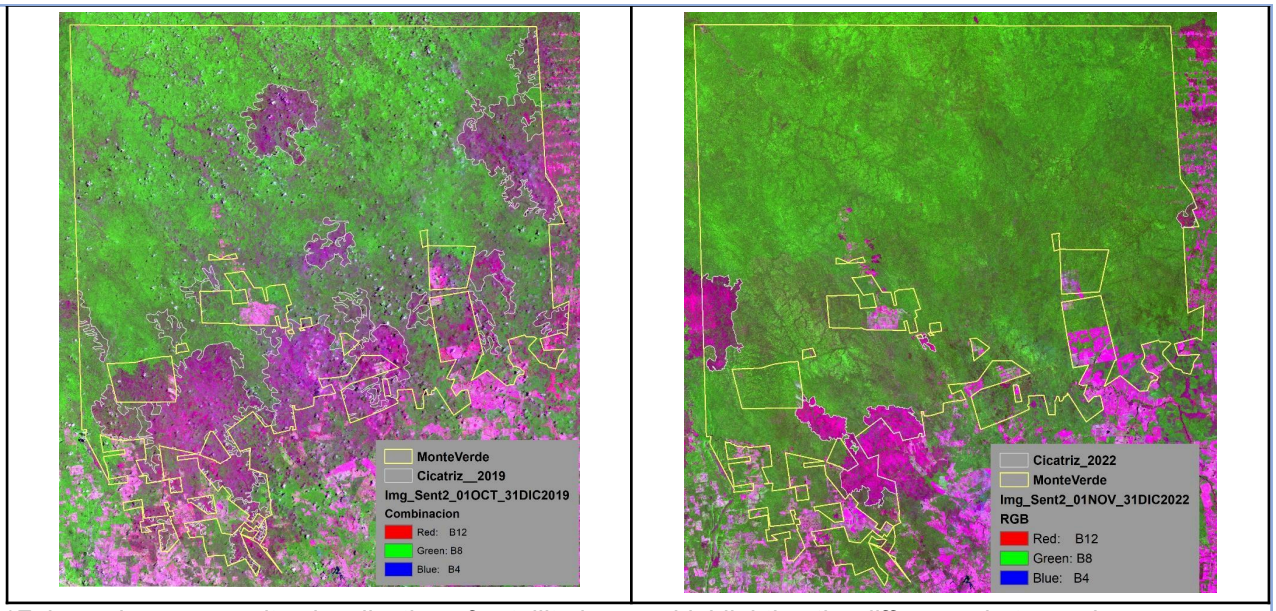
Furthermore, the multi-stakeholder platform for fire prevention and management has been beneficial for collaboration and coordination.

Evidence

Evidence can be found here:

- *Community Restoration Plan Documents, which are being implemented.*
- *Video showing the restoration efforts financed by Danida and the Kauffeldt Foundation.*
- *Article that partly mentions the restoration work carried out by FoW and APCOB: "Luchando contra las adversidades - APCOB en Bolivia": https://preferredbynature.org/es/newsroom/la-restauracion-de-ecosistemas-se-convierte-en-algo-social-el-compromiso-de-la-comunidad*
- *Awareness raising campaigns with the aim of reducing forest fires: https://fb.watch/lg0D-d8RpA/ and https://www.facebook.com/watch/?v=1035111353798041*

*Comparison of burnt areas between 2019 and 2022 in Monte Verde**



**False-colour composite visualisation of satellite images highlighting the difference between burn scars ("Cicatriz"), and healthy vegetation, shown in purple and green respectively.*

IATI Tagging

This case study should be listed under relevant activities in the IATI Registry and tagged using following categories:

- Country (Country - iatistandard.org)
- Region (Region - iatistandard.org)
- DAC 3 Digit Sector (DAC 3 Digit Sector - iatistandard.org)
- DAC 5 Digit Sector (DAC 5 Digit Sector - iatistandard.org)
- Humanitarian Scope Type (where applicable, Humanitarian Scope Type - iatistandard.org)