

CRISIS IMPACT OVERVIEW

Since the start of January 2024, multiple wildfires have raged in a number of Colombia's departments. As at 26 January, the fires had ravaged approximately 17,000 hectares, with no information available on the number of people injured, including firefighters. Aggravated by the warm, dry conditions associated with El Niño, these fires are triggering air quality alerts and wildlife displacement, with impacts on health and livelihoods (OCHA 26/01/2024; Mongabay 26/01/2024).

Deforestation alerts and fire outbreaks significantly increase during a typical Colombian dry season (January–March) (Mongabay 15/02/2023). The combination of exceptionally high temperatures induced by climate change and precipitation and temperature anomalies triggered by El Niño has led the situation to reach critical levels in 2024, with over 440 forest fires recorded in January (El País 28/01/2024; ET 27/01/2024). According to the National Fire Brigade of Colombia, as at 26 January, 200 more fires had been reported than in the same period in 2023 (El País 26/01/2024).

By 31 January, as a result of different exposure and vulnerability factors, over 970 of Colombia's 1,101 municipalities were under alert from the imminent risk of wildfires (Portafolio 01/02/2024; ET 02/02/2024; LR 03/02/2024). Boyacá and Cundinamarca departments comprised 31% of at-risk municipalities (Mongabay 26/01/2024).

On 28 January, the Colombian Government declared a national emergency and requested international and UN assistance to address the wildfires. The Government also issued a specific warning about the risk of wildfires in the Amazon Rainforest. The Mayor of Bogotá, the capital city, has formally sought international support, particularly for water transport aircrafts (OCHA 26/01/2024).

Between November 2023 and January 2024, dry conditions also affected water availability. 69 municipalities experienced a drinking water shortage, affecting over 44,900 people (equivalent to approximately 16,200 families) (EE 28/01/2024).

ANTICIPATED DEVELOPMENTS

El Niño is anticipated to persist throughout the first quarter of 2024, gradually decreasing in strength before transitioning to neutral conditions from April–July (NOAA 08/02/2024; ACAPS 06/02/2024). During the first quarter, nationwide temperatures are forecasted to remain higher than usual.

Climate precipitation prediction models estimate that deficits from February–April will range from 10–30% in the areas of Altiplano Cundiboyacense, Antioquia, Bolívar, Cauca, Córdoba, Huila, Magdalena, Nariño, Santander, Sucre, and Valle del Cauca (IDEAM 19/01/2024; IRI accessed 09/02/2024).

Although all active wildfires had been extinguished by 6 February, persistent temperature and precipitation anomalies will continue to create conditions favourable to the spread of wildfires. Cundinamarca and Boyacá are the most at-risk departments, followed by Tolima and Santander.

Departments located in the Amazon Rainforest are also at risk, with the region recording a 205% increase in wildfires from 2023. The increase is likely the result of economic interests and pressures driving deforestation to boost intensive farming, alongside the exceptional drought in the Amazon River Basin since 2023, predominantly attributable to climate change (ACAPS 12/02/2024; Mongabay 26/01/2024; WWA 24/01/2024).



KEY PRIORITIES

440

WILDFIRES IN
JANUARY 2024

17,000

HECTARES BURNT

971

MUNICIPALITIES
UNDER ALERT

HIGH RISK

OF SPREAD AS A
RESULT OF EL NIÑO

CRISIS IMPACTS

Livelihoods and food security

Wildfires, which, as at the beginning of February, had destroyed over 17,000 hectares of vegetation in Colombia, typically lead to a series of devastating consequences for ecosystems. The loss of forest resources affects fauna and flora diversity (MADS accessed 02/02/2024). Wildfires also affect the soil, inducing soil property changes, diminishing microorganism diversity, and accelerating erosive processes. Wildfires affect the hydrological cycles, as loss of vegetation coverage leads to the alteration of surface runoff and infiltration (UNGRD 06/07/2021).

These ecosystem impacts compound the effects of the dry conditions observed in large parts of the country, triggering agriculture and livestock losses. The Colombian National Unit for Disaster Risk Management predicted in December 2023 that El Niño-related hazards in the first half of 2024, including adverse effects on crops such as fique, cassava, oil palm, and barley, would heavily affect the agricultural sector (UNGRD 18/12/2023). In February 2024, the Ministry of Agriculture and Rural Development reported that wildfires had affected over 520 hectares of crops (LR 07/02/2024). Although experts caution against speculation about increased food prices, some anticipate challenges in food access and estimate an increase in food and energy prices as a result (ET 02/02/2024; Portafolio 25/01/2024). Besides agriculture and livestock losses, wildfires also disrupt communications, as well as aerial and road transport, affecting other economic sectors (MADS accessed 02/02/2024).

Health

Smoke particles from the fires have elevated air pollution to detrimental levels. Exposure to this smoke can trigger asthma crises and increase vulnerability to respiratory infections, harming the respiratory system. As per the Air Quality Index, the last week of January saw a decrease in air quality and higher concentrations of PM_{2.5}¹ in Bogotá (IQAir accessed 12/02/2024). People with pre-existing respiratory conditions, older people, and children are particularly at risk, as they may experience more severe health effects. The smoke can also contribute to the development of cerebrovascular diseases, such as strokes (MSPS 28/01/2024). Air pollution is also linked to cardiovascular and metabolic diseases (ET 30/01/2024). In 2024, air pollution triggered by wildfires may combine with exposure to exceptionally high

temperatures, increasing the risks of heart and lung conditions (NYT 02/02/2024). The District Secretary of Health has advised against outdoor physical activity, especially in the most affected areas, and emphasised the importance of wearing masks for those with pre-existing conditions (Infobae 26/01/2024). The National Unit for Disaster Risk Management has highlighted an increase in the incidence of skin and eye lesions from UV radiation exposure, dehydration, and heat strokes as potential health risks associated with the current environmental conditions (UNGRD 18/12/2023).

El Niño is also expected to aggravate the current dengue outbreak in the country, as droughts and low water levels contribute to unsafe water management and consumption practices (OCHA 02/11/2023; INS accessed 06/02/2024). In urban areas such as the southern region of Bogotá, a rise in outbreaks of vector-borne diseases – such as chikungunya, dengue, and Zika – may worsen the pressure on health services (RCN 25/01/2024).

Education

The fires' proximity to educational centres has affected classes. There is no data available on the number of education facilities and students affected. In Bogotá, the District Secretariat of Education recommended that schools, as well as universities near the fires, switch to virtual mode during peak wildfire activity, as well as the use of masks and keeping windows closed if physical attendance is essential (SED 24/01/2024; MEN accessed DD/MM/2024). Infrastructure damage, access constraints, and water shortages resulting from the wildfires may also affect educational services (UNGRD 18/12/2023).

¹ PM_{2.5} is a common particle present in air pollution, the inhalation of which can cause serious health effects, especially on the respiratory tract and cardiovascular system. It refers to fine particles with a diameter of 2.5µm or less suspended in the air. These particles can include dust, soot, smoke, and liquid droplets and are small enough to penetrate deep into the lungs when inhaled.

CRISIS DRIVERS AND AGGRAVATING FACTORS

Climate change and El Niño

Environmental experts have warned that climate change is aggravating the effects of El Niño, enhancing the frequency and intensity of extreme weather events (La Silla Vacía 28/01/2024). Colombia is highly susceptible to climate change, ranking tenth globally in terms of economic vulnerability to natural hazards (WB accessed 06/02/2024; WRI 07/07/2022). The expansion of urban and coastal populations, the proliferation of informal and poorly planned settlements, and environmental degradation aggravate this vulnerability (USAID 29/11/2023; CEOBS 12/06/2023). as exposure to fine particulate matter is associated with a ten-month reduction in average life expectancy (AQLI accessed 06/02/2024). Water shortages and scarcity are also an expected impact of the El Niño phenomenon (Infobae 29/01/2024; Monbagay 26/01/2024; UNGRD 21/01/2024).

Intensive farming and ecosystem changes

While meteorological conditions facilitate their occurrence, wildfires often start as a result of human activities, such as planned agricultural burns that get out of control or campfires and waste in forest areas (Mongabay 26/01/2024). Economic dynamics that benefit from wildfires further complicate the situation. In the dry season, deforested and burnt hectares enable the concentration and seizure of lands, which are then consolidated into livestock and agro-industrial projects (UNGRD 18/12/2023). Some forests in the country, such as those in Cundinamarca department, have a high presence of non-native, more flammable tree species, making them particularly vulnerable to wildfires (La Silla Vacía 28/01/2024).

RESPONSE CAPACITY

Local preparedness and response capacities

To address wildfires effectively, national authorities and local governments must collaborate. In October 2023, the Colombian Government launched the National El Niño Management Plan. It aims to implement anticipatory actions to strengthen technical, operational, and administrative capacities in addressing the effects and impacts of the El Niño phenomenon (UNGRD 20/12/2023; Pares 13/10/2023). The plan emphasises the importance of enhancing coordination among different government levels, strengthening preparedness and response capacity, increasing community participation in risk management, and promoting climate risk education and awareness (UNGRD 20/12/2023). Following the 2023 October elections,

to mitigate the effects of drought and support firefighting efforts, the authorities undertook initiatives to enhance water supply infrastructure and facilitate the drilling of wells. Despite advice in the early months against controlled burns for land preparation, the enforcement of burn bans began only after emergencies developed, not at the issuance of alerts (Mongabay 26/01/2024). The plan emphasises the importance of enhancing coordination among different government levels, strengthening preparedness and response capacity, increasing community participation in risk management, and promoting climate risk education and awareness (UNGRD 20/12/2023). Following the 2023 October elections, to mitigate the effects of drought and support firefighting efforts, the authorities undertook initiatives to enhance water supply infrastructure and facilitate the drilling of wells. Despite advice in the early months against controlled burns for land preparation, the enforcement of burn bans began only after emergencies developed, not at the issuance of alerts (Mongabay 26/01/2024).

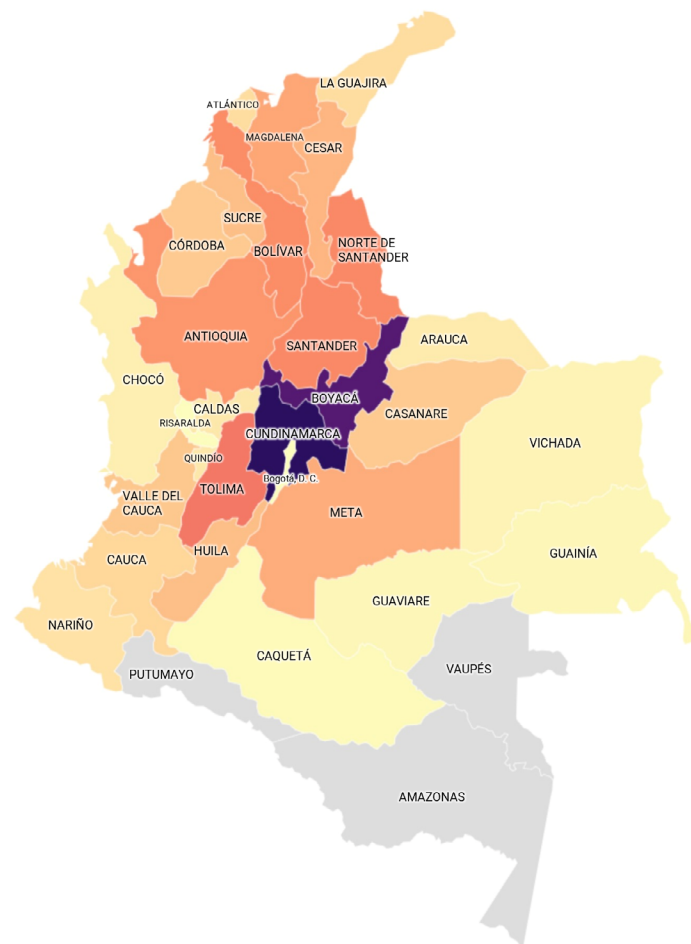
Only approximately one-third of the country's municipalities have firefighting units, highlighting the crucial need for coordination among neighbouring municipal and departmental authorities (ET 21/10/2023). The lack of coordination and presence of differing local policies limit wildfire management and response capacities (Mongabay 26/01/2024).

Humanitarian response

The Colombian Government declared a state of disaster and public calamity on 25 January, authorising the reallocation of budget resources from less-affected areas to address the country's severe wildfire emergency (UNGRD 28/01/2024). The Government has requested the activation of international assistance protocols through the UN and sought the collaboration of Canada, Chile, Peru, and the US to combat the wildfires (Mongabay 26/01/2024; France 24 25/01/2024).

Road damage and low aerial visibility resulting from smoke, as well as poor communication infrastructure and security concerns in some affected areas, would limit humanitarian access and aid provision should wildfires resume (ACAPS accessed 12/02/2024).

Map of wildfire alerts in Colombia as at 25 January



Source: Mongabay (26/01/2024)

Note: as at 25 January 2024, according to data from the Institute of Hydrology, Meteorology, and Environmental Studies, 681 municipalities in Colombia were on red alert for the imminent risk of wildfires in vegetative cover. Boyacá and Cundinamarca accounted for 31% of these municipalities. The number of municipalities on alert increased at the end of January (ET 02/02/2024). The greyed-out departments are those for which no information is available.