

A LANDSCAPE 360 OCCASIONAL FACT SHEET | FOREST FIRES IN INDONESIA

Kalimantan Burning

The 2026 Fire Season, Week of August 13 to 20

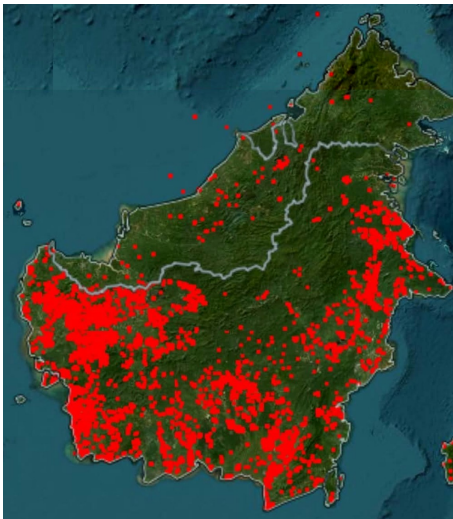


Figure 1. Active fire detections over Kalimantan in the 24 hours to August 20, 2026. Source: NASA FIRMS.

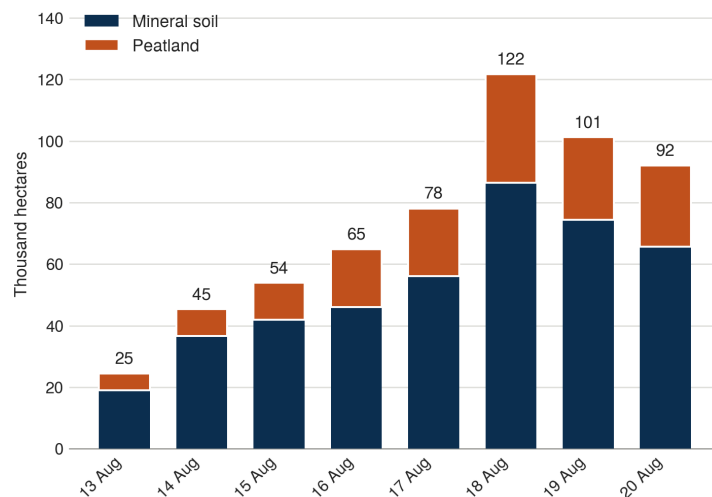


Figure 2. Daily fire-affected area, August 13 to 20, 2026. Source: Landscape Advisory analysis of VIIRS 375 m active fire detections from Suomi NPP, NOAA-20 and NOAA-21.



Published for the internal network by **Landscape Advisory**, a member of **The Landscape Group**. It accompanies the Climate Change Updates section of Landscape 360.

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Into the Peak

Fire in Kalimantan quadrupled in a week. Nearly one hectare in five is burning on peat.

Between August 13 and 20, satellites recorded 66,199 active fire detections across Kalimantan. Resolved to unique ground positions, they cover 426,727 hectares, about 0.80 percent of the island in eight days. The daily figure rose from 24,511 hectares on August 13 to 121,753 hectares on August 18 and has stayed above 90,000 hectares since.

The background conditions are the reason this matters. 2026 is tracking among the four warmest years on record, near 1.46 degrees Celsius above the 1850 to 1900 baseline, and ocean heat content has reached its highest level in at least a millennium. In June the World Meteorological Organization confirmed that El Niño conditions were developing, with forecasters putting the probability of a sustained event at 97 to 98 percent through year end and the central case in the strong to super range. In Indonesia an El Niño suppresses rainfall and stretches the dry season, drying drained peat to the depth at which it will carry fire. That is the mechanism behind 1997, 2015 and 2019, and it is the mechanism now loading.

Two findings stand out. Peat carries 81,759 hectares of the weekly total, burning at 2.3 times the rate of mineral soil and supplying about three quarters of the greenhouse gas released. And just over half the fire sits inside a licensed concession, with oil palm alone accounting for more than a fifth of the total. Both point to drained peat inside plantation licenses in West and Central Kalimantan.

What Is Burning

Area, jurisdiction and soil across the week of August 13 to 20.

92,067 hectares of active fire on August 20

On the most recent full day of data, fire touched 92,067 hectares across the five provinces. West Kalimantan carried the largest share at 37,884 hectares and Central Kalimantan followed at 28,308 hectares. Central Kalimantan is the more serious case despite the smaller area, because 57 percent of its fire sits on peat against 26 percent in West Kalimantan. East and South Kalimantan together account for 23,906 hectares, almost all on mineral soil. North Kalimantan remains marginal at 1,969 hectares. Fire reached 51 kabupaten and kota on that day alone, which is a sign that ignition is widespread rather than concentrated in a few large events.

Peat carries a fifth of the area and most of the damage

Peatland covers 4.92 million hectares of Kalimantan, roughly 9 percent of the island, and carried 81,759 hectares of the weekly footprint. As a rate, 1.66 percent of all Kalimantan peat showed fire in one week against 0.71 percent of mineral land, a ratio of about 2.3 to 1. That gap drives the emissions estimate on page 4, because in a peat fire the fuel is the soil rather than the vegetation standing on it. Drained peat also smoulders below the surface, so a hectare recorded once on a satellite pass can keep burning

and releasing carbon for weeks after the flame front has passed.

Six districts hold a third of the total

Ketapang in West Kalimantan is the largest single source at 15,638 hectares, of which 32 percent is peat. Berau follows at 6,595 hectares, then Kotawaringin Timur at 6,511, Sanggau at 6,075 and Kapuas at 5,288. Two smaller districts matter out of proportion to their area. Kota Palangka Raya recorded 4,177 hectares at 90 percent peat and Kubu Raya 2,095 hectares at 83 percent peat, both upwind of major population centers.

Smoke is the larger public health story

Hectares understate what a peat fire does. Smouldering peat produces far more smoke per unit of fuel than flaming vegetation, and the haze travels well beyond the districts that burn. In the modeling summarized on page 4, the public health burden carried by haze is the single largest indirect channel, close to 0.40 percent of gross domestic product at the super intensity, ahead of the demand and trade channels. The districts with the highest peat share, Kota Palangka Raya and Kubu Raya among them, sit upwind of dense population centers, so exposure is not confined to the places recorded in Table 1.

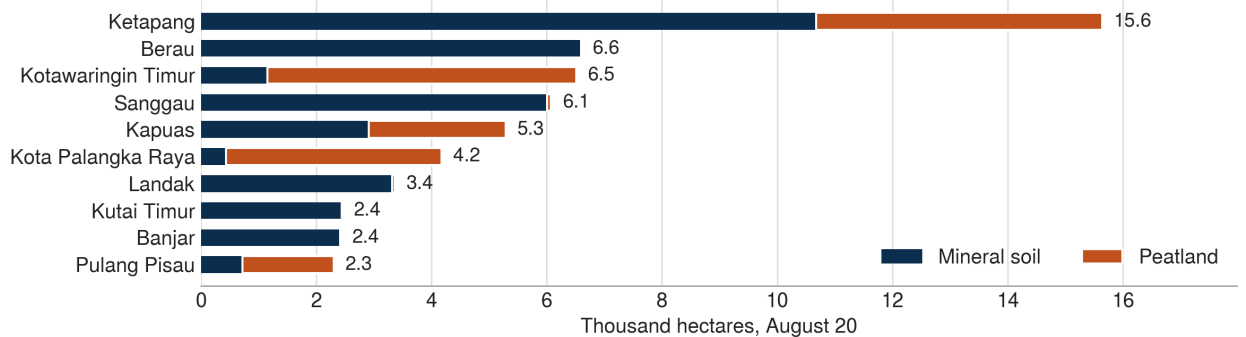


Figure 3. The ten districts with the largest fire-affected area on August 20, 2026, split by soil type. Source: Landscape Advisory analysis.

The season has not reached its peak

An eight-day window is short, and part of the rise reflects clearing skies as much as new ignition. In a normal year the Kalimantan fire season peaks in

September and early October. With El Niño conditions confirmed and the dry season still lengthening, the area recorded so far should be read as the opening of the season rather than its measure.

Table 1. Fire-affected area by province and soil type, hectares.

Province	Aug 20 mineral	Aug 20 peat	Aug 20 total	Week total	Week peat share
West Kalimantan	28,195	9,689	37,884	181,617	18 percent
Central Kalimantan	12,277	16,031	28,308	118,209	38 percent
East Kalimantan	13,331	225	13,556	64,842	1 percent
South Kalimantan	9,858	492	10,350	49,247	5 percent
North Kalimantan	1,969	0	1,969	12,811	0 percent
Kalimantan	65,630	26,438	92,067	426,727	19 percent

Weekly figures count each 375 m cell once for the whole period, so they are smaller than the sum of the daily values.

Who Holds the Land

Fire inside logging, pulpwood and oil palm concessions.

Just over half the fire sits inside a licensed concession

On August 20, some 44,240 hectares of fire, or 48 percent of the daily total, fell inside a logging, pulpwood or oil palm boundary. Across the week the figure is 213,891 hectares, or 50 percent of all fire-affected area in Kalimantan. Oil palm alone accounts for 21.7 percent of the total, pulpwood plantations for 11.7 percent and logging concessions for 10.0 percent. A further 6.6 percent falls in areas claimed by more than one license type, reported separately here rather than counted twice.

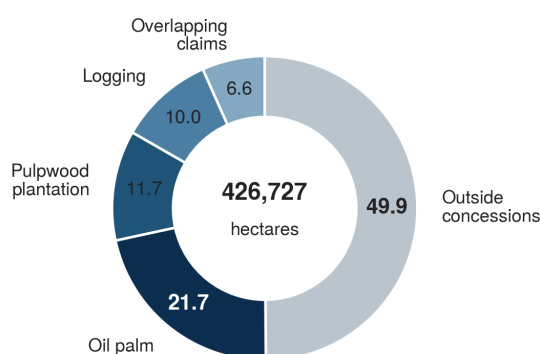


Figure 4. Share of the week's total fire-affected area by land class, percent. Source: Landscape Advisory analysis.

Peat inside oil palm licenses is the sharpest exposure

Of the 81,759 hectares of peat fire recorded during the week, 22,711 hectares sit inside oil palm concessions and a further 2,967 hectares in areas of overlapping claim. That is the largest pool of peat fire

Table 2. Fire-affected area by land class, week of August 13 to 20, hectares.

Land class	Mineral soil	Peat	Total	Share of all fire-affected area
Outside concessions	159,075	53,761	212,836	49.9 percent
Oil palm	70,017	22,711	92,728	21.7 percent
Pulpwood plantation	48,248	1,702	49,950	11.7 percent
Logging	42,244	619	42,862	10.0 percent
Overlapping claims	25,383	2,967	28,350	6.6 percent
Kalimantan	344,967	81,759	426,727	100 percent

The presence of fire inside a concession boundary is not evidence that the license holder set it. Fires spread across boundaries, and concession maps carry their own errors of date and position.

What to watch

The Kalimantan fire season normally peaks in September and early October, so the heaviest weeks

Oil palm carries more than a fifth of all fire

The largest single share, 49.9 percent, lies outside any concession, on smallholder land, unallocated forest and land under other use rights. This is also the largest land class on the island at 52 percent of its area, so a share near half is close to what its extent alone would produce. The concession classes are the reverse case. Oil palm holds 21.7 percent of the fire on 16 percent of Kalimantan and pulpwood plantations 11.7 percent on 8 percent. Logging is the exception, with 10.0 percent of the fire across 21 percent of the island.

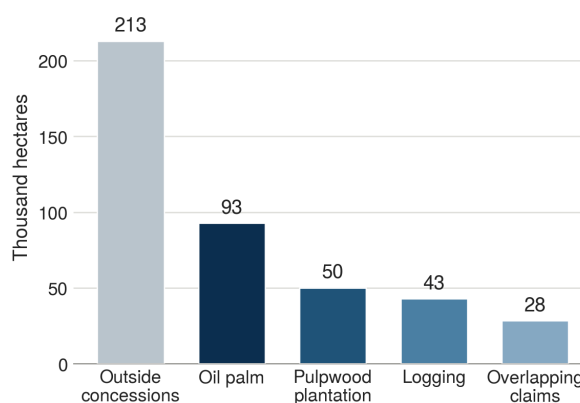


Figure 5. Fire-affected area by land class, week of August 13 to 20, thousand hectares.

under identifiable corporate control, and the pool most likely to attract attention under the European Union Deforestation Regulation, which applies to large operators from December 30, 2026, and the revised Indonesian Sustainable Palm Oil standard. Together they are 31 percent of all peat fire. Pulpwood concessions hold 1,702 hectares and logging concessions 619 hectares.

are still ahead. The European Union Deforestation Regulation applies to large operators from December 30, 2026, placing this season inside the first compliance window for palm oil and timber.

What It Emits

Greenhouse gas released during the week, and what the modeling says it costs.

The week released 16 to 33 million tonnes of carbon dioxide equivalent

Emissions were estimated from the weekly footprint by soil class, a fuel consumption rate per hectare, and published emission factors. Taking a quarter to a half of the satellite footprint as genuinely burned, at central fuel loads, gives 16 to 33 million tonnes of carbon dioxide equivalent for eight days. Peatland supplies about 76 percent of that from 19 percent of the area. The range is wide because two assumptions dominate, how much of the satellite footprint actually burned and how deep the peat burned, and both are given as scenarios rather than folded into a single number.

Table 3. Emission scenarios for August 13 to 20, million tonnes. The scenario label gives the assumed burned fraction of the satellite footprint and the fuel load case.

Scenario	Dry matter	CO ₂	CO	CO ₂ e
Quarter, low fuel	5.0	7.8	0.82	9.5
Quarter, central fuel	8.6	13.6	1.37	16.4
Half, central fuel	17.1	27.1	2.74	32.8
Half, high fuel	25.8	41.0	3.93	49.1
Full, central fuel	34.3	54.3	5.47	65.5

Method and caveats

Every VIIRS detection was snapped to a 375 meter grid in an equal-area projection and counted once per day, so that three satellites and their day and night overpasses do not multiply-count the same ground. Weekly figures count each cell once. Soil and concession status were assigned by point in polygon. Peat fuel consumption was set at 200, 314 and 420 tonnes of dry matter per hectare and mineral soil at 10, 25 and 50 tonnes, with emission factors from Akagi and colleagues and warming potentials from the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

An independent cross-check built from fire radiative power returns about 3 million tonnes of dry matter for the week, roughly five times lower than the central case. That is expected rather than contradictory. Radiative power methods under-detect the long, low-temperature smouldering that consumes most of the peat, so the figure is best read as a floor beneath the range above.

These are fire-affected hectares, not confirmed burned hectares. A 375 meter pixel can be flagged from a fire covering only part of it, so the footprint is an upper bound and should be scaled before it is quoted as burned area. The most recent full day in the data is August 20. Logging and pulpwood boundaries derive from a Ministry of Forestry layer of 2010 updated in 2017. The peat layer gives extent only, with no depth classification. Company attribution inherits whatever the concession layer records, and 71,423 hectares of the weekly oil palm fire sits in licenses with no parent group named.

Sources

Fire detections from the VIIRS 375 meter active fire product, Suomi NPP, NOAA-20 and NOAA-21, August 13 to 20, 2026. Peatland and concession boundaries from Ministry of Forestry and Global Forest Watch layers held by Landscape Advisory. Administrative boundaries from geoBoundaries. Climate background from the United Kingdom Met Office and the World Meteorological Organization, June 2026. Emission parameters from Akagi and colleagues 2011, Kiely and colleagues 2019, and Huijnen and colleagues 2016. Full tables, the complete list of 51 districts, company level detail and a spatial layer for geographic information systems are available on request.

FROM THE LIBRARY



Fire in the Horizon: The Modeled Impacts of the 2026 Super El Niño on Indonesian Economy

Agus P. Sari. Climate Change Series #1, June 2026. Landscape Advisory, Jakarta.

The paper follows an El Niño shock through the Indonesian economy in three waves. The first is physical, the crops and forests that drought and fire destroy outright. The second runs through prices, health, demand and public finance. The third is what finally shows up in the headline numbers. Its central finding is that the second wave is larger than the first, so an accounting confined to burned fields and forests captures less than half of what the event costs.

Forestry and peatland take the deepest proportional hit, and the haze they produce carries the largest single indirect drag. In aggregate the damage is absorbable, roughly half a point of growth. The danger sits in the distribution, in food prices, farm work and a fiscal position with little room, where between one and one and a half million people are pushed below the poverty line. That is why the paper treats fire prevention as macroeconomic policy rather than housekeeping. The 2015 season cost about 1.9 percent of gross domestic product. Rewetting, early suppression and enforcement where the hotspots concentrate cost a fraction of that.