

A LANDSCAPE 360 OCCASIONAL FACT SHEET

Fire in the Carbon Projects

How the 2026 fires cut Indonesia's carbon credits

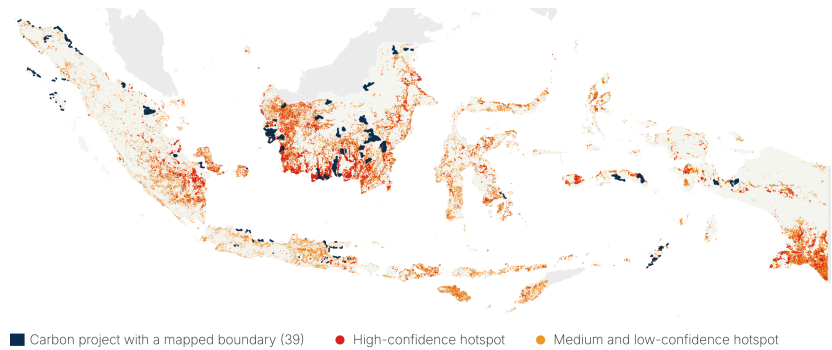


Figure 1. Carbon project boundaries filed with Verra, and hotspots from January 1 to October 20, 2026. Sources: Verra registry; SIPONGI KEMENHUT.

Table 1. Fire and lost credits in the carbon projects, by province, January 1 to October 20, 2026.

PROVINCE	WITH FIRE	FOOTPRINT, HA	BURNED, HA	MT CO ₂ e	PERCENT OF A YEAR
Central Kalimantan	11 of 12	65,700	19,860	9.51	54
West Kalimantan	8 of 8	29,180	10,800	6.50	67
Maluku	3 of 3	27,930	12,170	0.55	13
East Kalimantan	1 of 1	7,520	1,280	0.06	6
North Kalimantan	2 of 3	2,590	450	0.03	1
Papua and West Papua	2 of 2	860	150	0.01	1
Riau	1 of 3	10	20	0.02	2
Sumatra, Java and others	1 of 7	40	10	0.00	12
Indonesia	29 of 39	133,830	44,740	16.68	45

Note. Central estimates. The footprint counts every 375 m cell with a VIIRS detection. The percent counts only the projects with fire.

Fire Inside the Project Boundaries

We laid the boundaries that developers filed with Verra over 1.28 million SiPongi hotspots. The 39 projects cover 1.86 million hectares, or 1.0 percent of Indonesia's land, and took 2.0 percent of the hotspots. Peat gave 94 percent of the emissions, and Central and West Kalimantan carry 96 percent of the loss.

The Credits Lost

Fire emissions inside a project count against the reductions it can claim, tonne for tonne. We estimate that 44,700 hectares burned inside the projects and released 16.7 million tonnes of CO₂e. That equals 45 percent of a year of the credits the 29 burned projects expect, so the fires cancelled nearly half of a normal year's output. Three projects lost more than a full year and five lost more than half. At \$8.50 a tonne, the September price of a top-rated Indonesian REDD+ credit, the loss is worth about \$142 million. The two projects that have issued credits lost the equivalent of 10 percent of all they have issued.



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CREDITS LOST TO FIRE

16.7 Mt CO₂e

Central estimate for 2026, within a range of 3.3 to 30.0 million tonnes.

SHARE OF A YEAR OF CREDITS

45 percent

Of a year of credits expected by the 29 projects with fire.

PROJECTS WITH FIRE INSIDE

29 of 39

Projects with a mapped boundary on the Verra registry.

Risk, Readiness and Prevention

The 2026 season shows a fire risk in Indonesian carbon credits larger than the buffers allow for, and thin fire planning in most project documents.

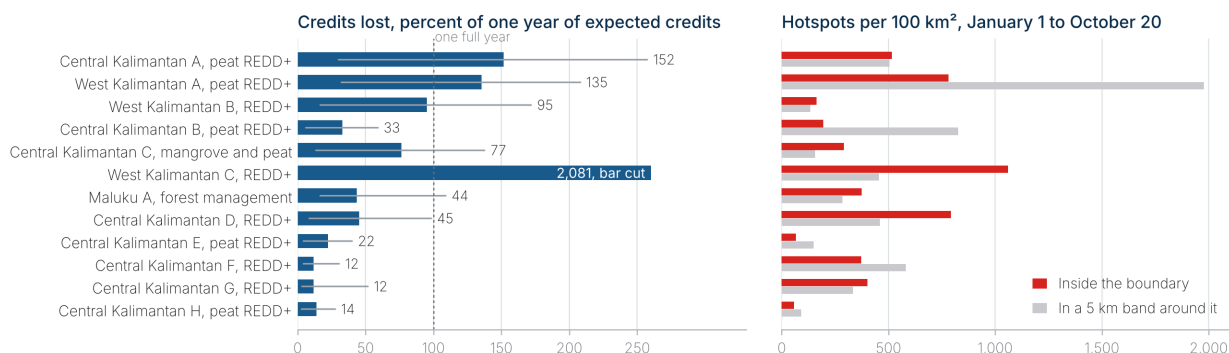


Figure 2. Left, credits lost to fire in the twelve projects with the largest losses, as a percent of one year of the credits each expects, with the low to high range. Projects carry only a province and a type. One small project's document lists 42,000 credits a year, so its bar runs past the axis. Right, hotspots per 100 km² inside each boundary and in a 5 km band around it. Sources: SIPONGI KEMENHUT; Verra project documents; Landscape Advisory.

Risk and Risk Premium

Verra covers a fire loss by cancelling credits from a pooled buffer. Each project pays in a share of its credits. Among the projects here that state one, it runs from 10 to 18 percent, with a median of 12. A 12 percent share of one year of the burned projects' expected credits is 4.4 million tonnes. The 2026 loss is close to four times that. Haya and colleagues found REDD+ projects set aside 2 percent for natural risk against an estimated 28 percent chance of a stand-clearing disturbance in 100 years.

Buyers and rating agencies price this risk. BeZero finds each rating notch worth about 20 percent of the price of a nature-based credit, and Fastmarkets finds REDD+ credits rated AA trade at 4.75 times those rated C. A downgrade on permanence would therefore cut prices for fire-hit peat projects.

Preparedness of the Developers

Only 5 of the 29 burned projects state a firefighting capacity in numbers, and none states a fire budget. Only three give a fire risk score, at 1 to 5 points, where a catastrophic fire every 10 to 25 years would score 30. Eight peat projects count fire in their baseline, at 14 to 48 percent of baseline emissions where stated, so they earn credits for fire they expect to prevent.

As a group the projects burned at 136 hotspots per 100 km² inside their boundaries and 115 in the band around them. Half did better than their surroundings and half did worse. The project with about 1,400 trained firefighters burned at a quarter of the density around it. In 8 of the 12 worst-hit projects, fire burned on 64 to 97 days of the season.

Sources and method

Data: Verra registry files and project documents; SIPONGI KEMENHUT hotspots; NASA MODIS MCD64A1, January to August; PEATMAP, Xu and others, 2018; Platts; BeZero; Fastmarkets; Verra AFOLU Non-Permanence Risk Tool v4.2; Haya and others, 2023; Permenhut 6/2026; Permen LHK P.32/2016; Salmayenti, Spracklen and Holden, 2026. All accessed October 20 and 21, 2026.

The Prevention Agenda

Fire on peat is predictable. Forecasters flagged the 2026 El Niño months ahead, and fire returns to the same drained peat. Preparation can therefore be a rule for every project.

Set a fire standard for carbon projects. Permenhut 6/2026 asks projects to manage reversal risk but sets no buffer size and no fire rule. Its implementing rules can require a brigade sized to the area, a ring-fenced annual fire budget, and the equipment and village fire groups that Permen LHK P.32/2016 already asks of forest licence holders.

Keep the peat wet. Restoration cut hotspots by up to 22 percent where rewetting worked, yet about 70 percent of canal blocks were reported damaged. Fund the upkeep of blocks and wells, and publish water table readings against the 40 cm threshold.

Work beyond the boundary. The band around the projects burned almost as densely as the projects themselves. Fund village fire groups and patrols in a band around each project, and nest projects in provincial programs so that prevention covers the whole landscape.

Price the risk fully. Buffer shares on peat should match observed losses, and Verra's version 5 rules from January 1, 2027 and its insurance pilot open a route. Developers should file loss reports soon after a season like this one, so that buyers see the losses.

Trigger readiness from the forecast. Tie pre-season budgets, staff and patrols to the El Niño outlook, so that capacity is in place by July.

Method: VIIRS footprint on a 375 m grid, scaled to burned area at 0.35 on peat and 0.17 elsewhere. Fuel 314 t dry matter a hectare on peat and 25 on mineral soil, IPCC factors, AR5 GWP. The low case uses 200 t CO₂e a hectare on peat, the rate one project reported for 2015. Tree death after fire is not counted.