

## Supplementary Tables.

**Table S1.** Density of sites of the reference dataset. One site is an area of 20 m x 20 m. The total combined burned areas of all three datasets in the seven provinces is 2.745 Mha. It presents a high density of sites (> 150 sites/Mha), while the density of sites is lower in the area classified as unburned by all three datasets (10.36 sites/Mha). The row with ‘Yes Yes Yes’ represents the area (0.529 Mha) where all three datasets were classified as burned. The other rows indicate all other possible combinations after intersection of all three burned area datasets.

<i>Sentinel</i>	<i>Official</i>	<i>MCD64A1</i>	<i>Area (Ha)</i>	<i>No of reference sites</i>	<i>Density of samples (Sites/Mha)</i>
No	Yes	Yes	0.146	22	150.25
No	Yes	No	0.201	31	154.15
No	No	Yes	0.561	86	153.16
Yes	Yes	Yes	0.529	81	153.05
Yes	Yes	No	0.318	48	150.98
Yes	No	Yes	0.346	53	152.97
Yes	No	No	0.643	98	152.47
Total			<b>2.745</b>	<b>419</b>	
No	No	No	<b>84.857</b>	<b>879</b>	10.36

**Table S2.** Estimation of the expected sample size in the areas classified as unburned in the dataset that was being evaluated but burned in the other datasets.

	<i>Burned area (B) dataset i (Mha)</i>	<i>Unburned area (U') detected as burned in datasets ≠ i (Mha)</i>	<i>Expected sample size in U'</i>	<i>Subsample size (B + U + U')</i>
<i>Sentinel</i>	1.836	0.909	9	280 + 879 + 9
<i>Official</i>	1.195	1.551	16	182 + 879 + 16
<i>MCD64A1</i>	1.584	1.162	12	242 + 879 + 12

Table S3. Confusion matrix

<i>SENTINEL</i>		<i>Reference</i>				
		<i>Burned</i>	<i>Unburned</i>	<i>Total</i>	<i>A<sub>m</sub> [ha]</i>	<i>W<sub>h</sub></i>
<i>Map</i>	<i>Burned</i>	274	6	280	1,836,396	0.021
	<i>Unburned</i>	6	882	888	85,766,079	0.979
	<i>Total</i>	280	888	1,166	87,602,475	1

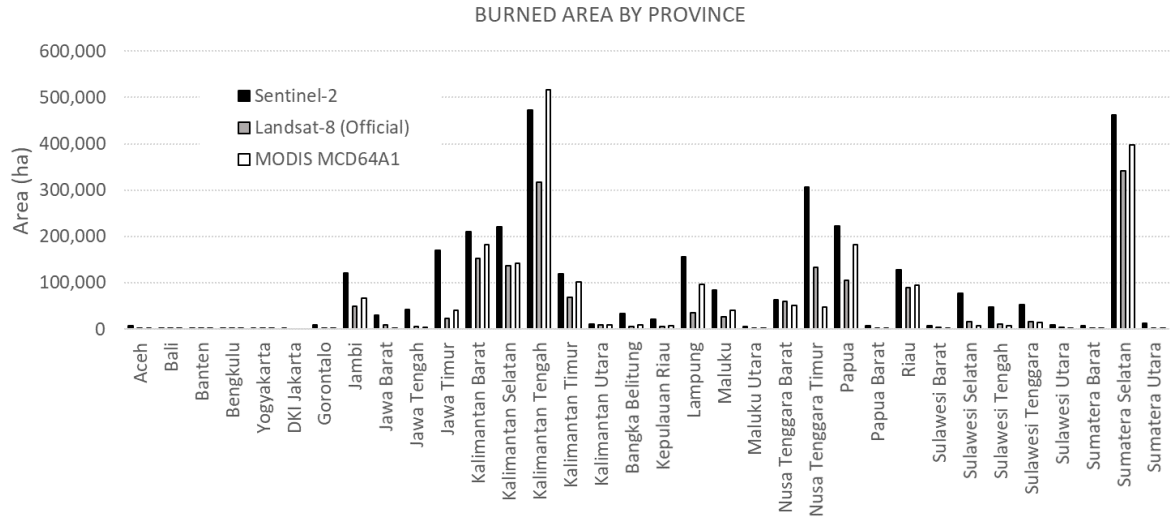
  

<i>OFFICIAL</i>		<i>Reference</i>				
		<i>Burned</i>	<i>Unburned</i>	<i>Total</i>	<i>A<sub>m</sub> [ha]</i>	<i>W<sub>h</sub></i>
<i>Map</i>	<i>Burned</i>	173	9	182	1,194,705	0.014
	<i>Unburned</i>	12	883	895	86,407,770	0.986
	<i>Total</i>	185	892	1,077	87,602,475	1

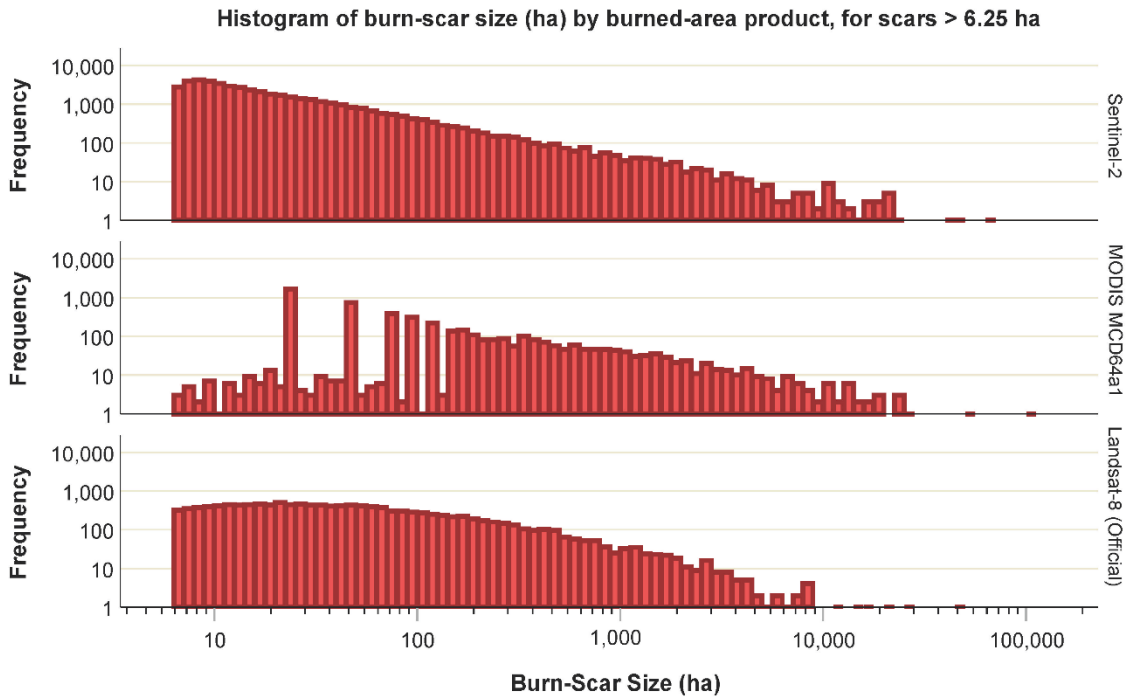
  

<i>MCD64A1</i>		<i>Reference</i>				
		<i>Burned</i>	<i>Unburned</i>	<i>Total</i>	<i>A<sub>m</sub> [ha]</i>	<i>W<sub>h</sub></i>
<i>Map</i>	<i>Burned</i>	184	58	242	1,583,643	0.018
	<i>Unburned</i>	11	880	881	86,018,832	0.982
	<i>Total</i>	195	938	1,133	87,602,475	1

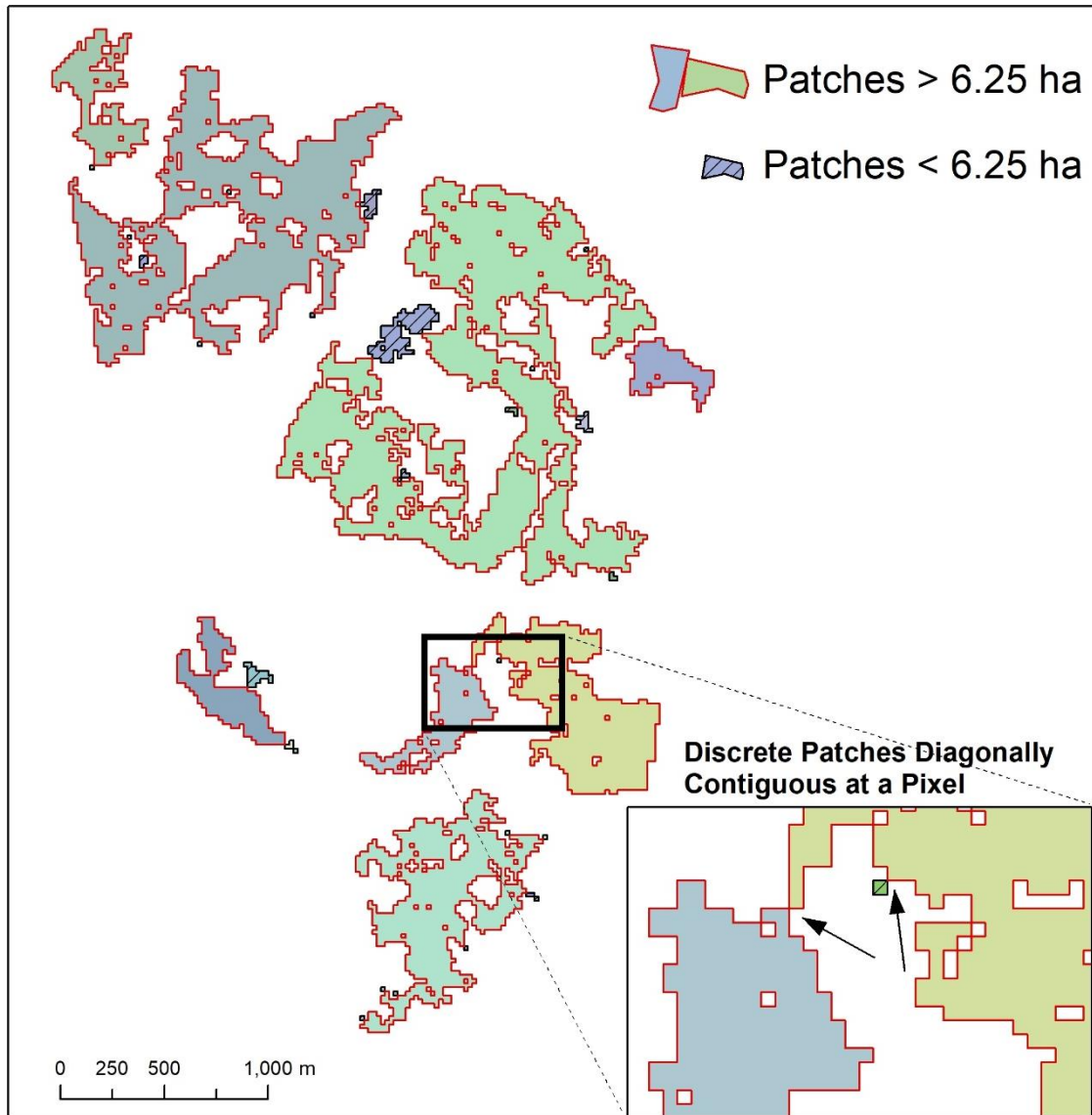
**Supplementary Figures.**



**Figure S1.** Estimated area of land that burned in 2019 in Indonesia’s 34 provinces, based on the analyses of Sentinel-2 imagery, Official and MODIS MCD64A1



**Figure S2.** Histogram of burn-scar size (ha) for Sentinel, MODIS MCD64A1, and MOEF burned area products. Notes: Patches < 6.25 ha are not shown. Note the logarithmic axes.



**Figure S3** – Discrete burned-area patches according to Sentinel data.

Notes: Discrete patches are denoted by unique shading. Patches that are contiguous diagonally at a given pixel are deemed to be discrete burned areas. Patches < 6.25 ha are excluded from analysis in the main text.