

Assessment of Burned Area During the 2020 Pantanal Fire Crisis Using Sentinel-2 Images

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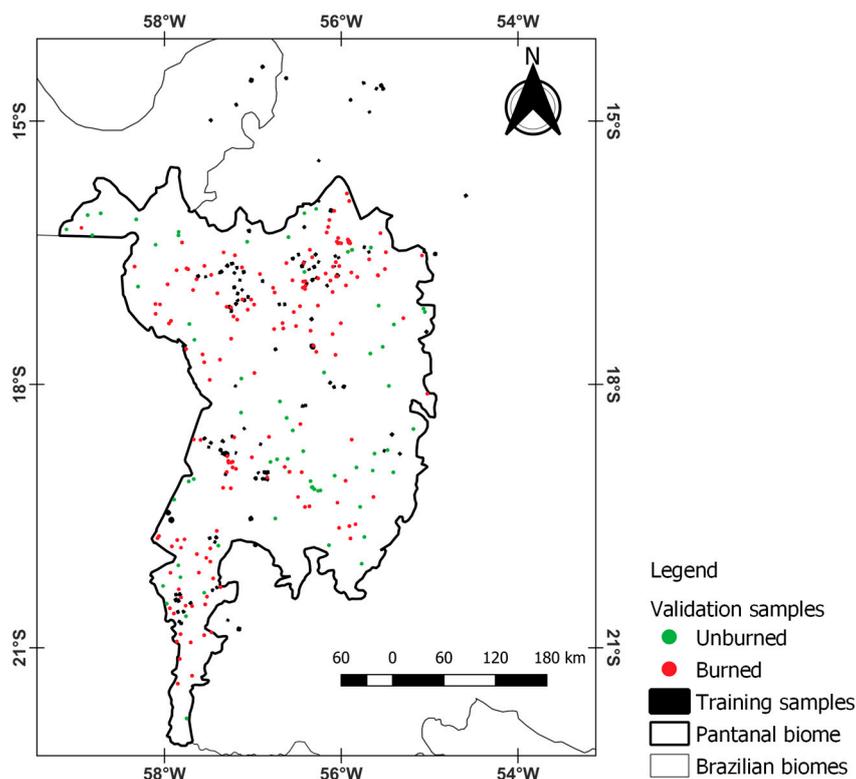


Figure S1. Spatial distribution of training (black polygons) and validation samples from burned (red dots) and unburned (green dots) areas in 2020 across the Pantanal biome, Brazil. Training and validation samples are separate datasets, representing 115 and 194 samples, respectively, without any overlay. Note that the representation has been enlarged to enhance visualization.

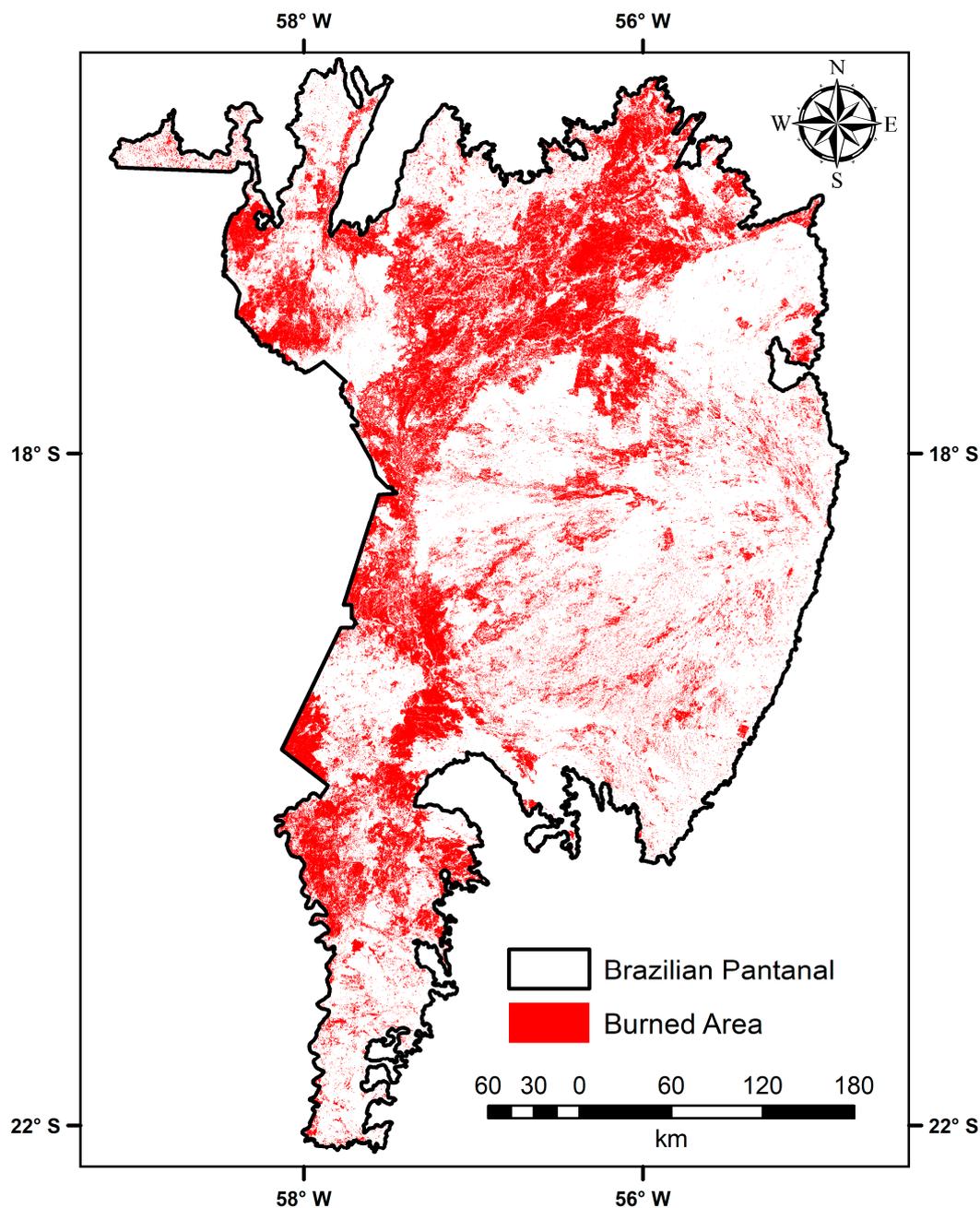


Figure S2. Spatial distribution of the burned area mapped in the Brazilian Pantanal biome during the 2020 fire crisis using MSI sensor images onboard the Sentinel-2 satellites.

Table S1. Confusion matrix based on the validation samples (reference) and the MapBiomias Fogo BA classification for the year 2020 (prediction) showing the overall accuracy (OA), confidence interval (CI), producer accuracy (PA) and user accuracy (UA).

		<i>Prediction</i>			Total	UA (%)
		Not Burned	Burned			
<i>Refer- ence</i>	Not Burned	48	3	51	94.1	
	Burned	63	80	143	55.9	
	Total	111	83	194		
	PA (%)	43.2	96.4			
OA, 95% CI (%)		65.9, 58.8 – 72.6 (p-value > 0.05)				
Precision		0.94				
Recall		0.43				

Table S2. Confusion matrix based on the validation samples (reference) and the MCD64A1 BA classification for the year 2020 (prediction) showing the overall accuracy (OA), confidence interval (CI), producer accuracy (PA) and user accuracy (UA).

		<i>Prediction</i>			Total	UA (%)
		Not Burned	Burned			
<i>Refer- ence</i>	Not Burned	46	5	51	90.2	
	Burned	52	91	143	63.6	
	Total	98	96	194		
	PA (%)	46.9	94.8			
OA, 95% CI (%)		70.6, 63.7 – 76.9 (p-value < 0.05)				
Precision		0.90				
Recall		0.46				

Table S3. Confusion matrix based on the validation samples (reference) and the GABAM Fire BA classification for the year 2020 (prediction) showing the overall accuracy (OA), confidence interval (CI), producer accuracy (PA) and user accuracy (UA).

		<i>Prediction</i>			Total	UA (%)
		Not Burned	Burned			
<i>Refer- ence</i>	Not Burned	49	2	51	96.1	
	Burned	86	57	143	39.9	
	Total	135	59	194		
	PA (%)	36.3	96.6			
OA, 95% CI (%)		54.6, 47.3 – 61.8 (p-value > 0.05)				
Precision		0.96				
Recall		0.36				

Table S4. Confusion matrix based on the validation samples (reference) and the Fire_cci BA classification for the year 2020 (prediction) showing the overall accuracy (OA), confidence interval (CI), producer accuracy (PA) and user accuracy (UA).

		<i>Prediction</i>			UA (%)
		Not Burned	Burned	Total	
<i>Refer- ence</i>	Not Burned	45	6	51	88.2
	Burned	40	103	143	72.0
	Total	85	109	194	
	PA (%)	52.9	94.5		
	OA, 95% CI (%)	76.3, 69.7 – 82.1 (p-value < 0.05)			
	Precision	0.88			
	Recall	0.52			