

Supplementary Materials

Table S1. Relative difference (%) of the percentile 50th and 90th (in parenthesis) from annual accumulated burned area (BA) and total scar number (SN)(according to Figure 3) between NFP and ZFP, and between ZFP and IFM in Xerente (a) and Araguaia (b) for each fire season: management fire season (MFS) and wildfires season (WFS).

(a) Phases	MFS		WFS	
	BA [%]	SN [%]	BA [%]	SN [%]
NFP/ZFP	−67.8 (25.4)	−60.0 (−26.8)	−0.2 (−4.9)	−16.9 (−8.0)
ZFP/IFMP	273.2 (−34.2)	225.0 (−30.0)	−7.3 (−15.1)	5.3 (−9.0)

(b) Phases	MFS		WFS	
	BA [%]	SN [%]	BA [%]	SN [%]
NFP/ZFP	−0.5 (319.7)	−47.4 (41.3)	3.0 (24.5)	−28.2 (−11.1)
ZFP/IFMP	660.2 (−19.7)	495.1 (71.1)	1.7 (−23.5)	23.7 (−4.2)

Table S2. Relative difference (%) of the percentile 50th and 90th (in parenthesis) from burned area (BA) of large scars, fire radiative power (FRP) and pyrogenic emission (PM_{2.5}) distribution (Figure 4) between NFP and 2 and between ZFP and 3 in Xerente (a) and Araguaia (b) for wildfires season (WFS).

(a) Phases	Difference [%]		
	BA	FRP	PM _{2.5}
NFP/ZFP	−10.4 (26.3)	−1.7 (9.5)	4.0 (16.3)
ZFP/IFMP	−3.7 (−17.9)	0.0 (−0.2)	7.7 (−10.0)

(b) Phases	Difference [%]		
	BA	FRP	PM _{2.5}
NFP/ZFP	19.9 (43.5)	10.0 (6.5)	−25.0 (10.1)
ZFP/IFMP	−9.9 (−20.2)	−3.4 (−10.3)	22.0 (−18.2)

Table S3. The proportion of pixels (i.e., area) in each fire recurrence class: zero, low (≤ 0.6 fire occurrence per year) and high (> 0.6 fire occurrence per year) in Xerente (a) and Araguaia (b), according to Figure 5.

(a) Fire recurrence class	Total area (ha)		
	Phase 1	Phase 2	Phase 3
Zero	28,320	30,324	35,901
Low	88,545	77,096	96,550
High	24,296	33,755	8,725

(b) Fire recurrence class	Total area (ha)		
	Phase 1	Phase 2	Phase 3
Zero	392,386	229,980	332,469
Low	610,991	648,833	664,825
High	122,874	247,437	128,956

Table S4. Modal month in each class for all three phases on Xerente (a) and Araguaia (b), according to Figure 6.

(a) Class	Mode		
	NFP	ZFP	IFMP
Very small	July	September	July & September
Small	June	July	July
Medium	August	August	August
Large	September	September	September

(b) Class	Mode		
	NFP	ZFP	IFMP
Very small	September	September	July & September
Small	September	September	July
Medium	August	September	July & September
Large	September	August	July & September

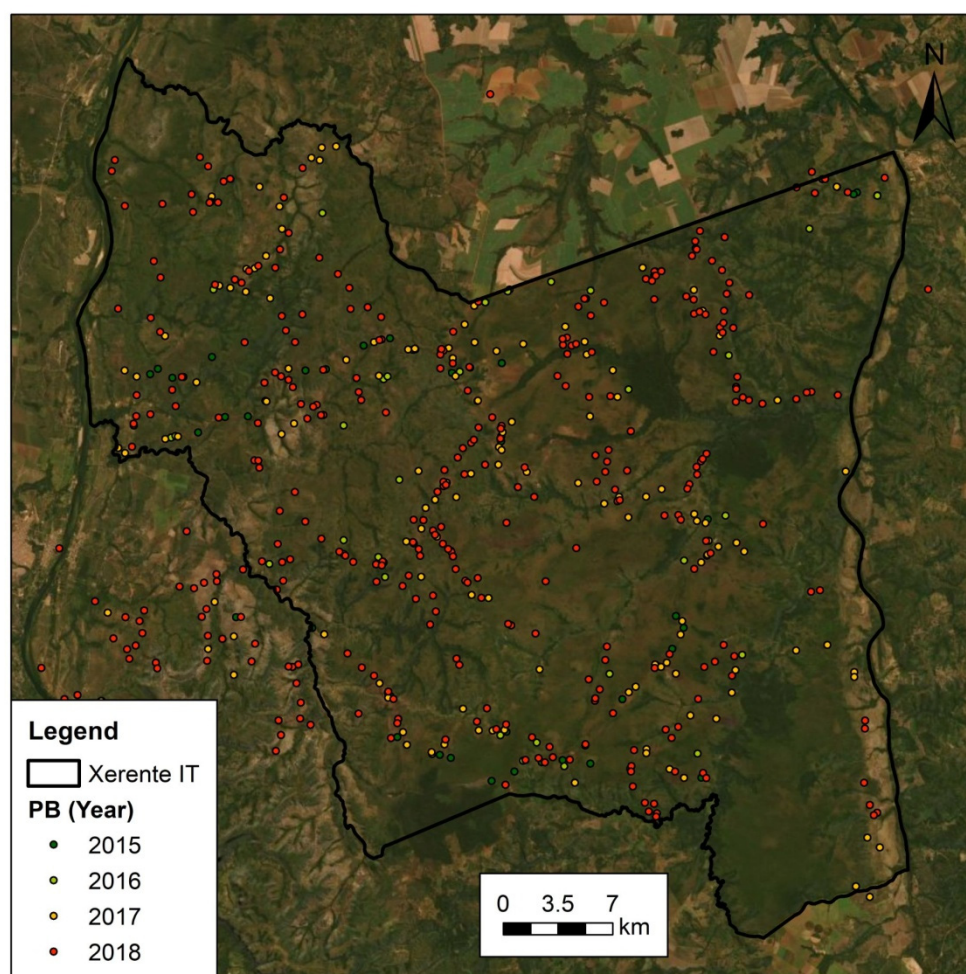


Figure S1. Prescribed burning (PB) over the Xerente IT between 2015 and 2018. Basemap: Google Satellite.

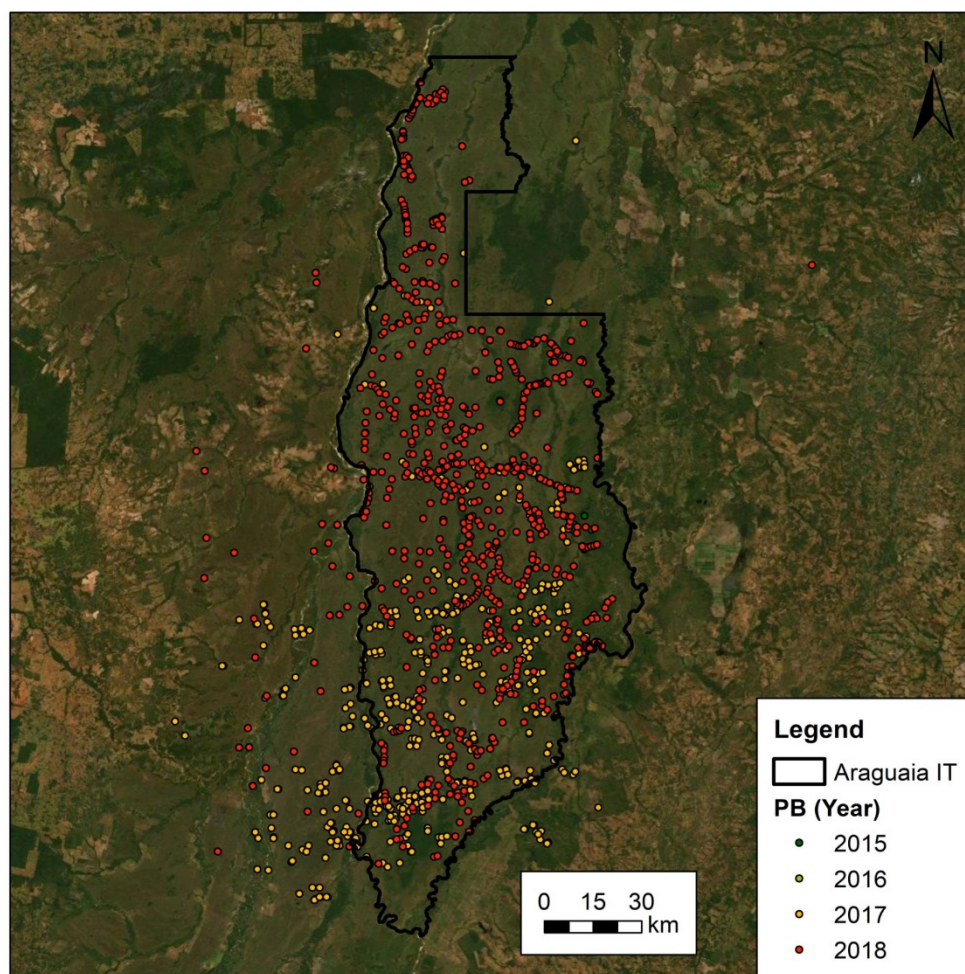


Figure S2. Same as Figure S1, but for Araguaia.

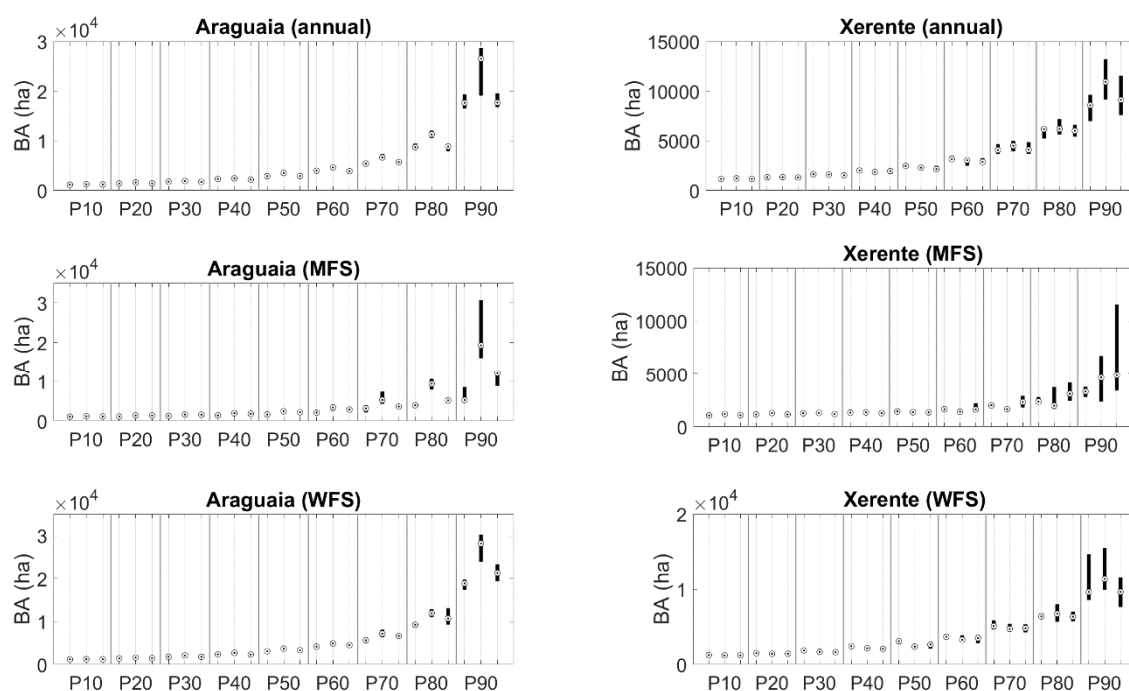


Figure S3. Boxplot showing values of burned area (BA) percentiles 10th to 90th for Araguaia (left columns) and Xerente (right columns) and for the entire years (upper row), MFS (middle row) and WFS (bottom row) for each group of 1000 samples generated by bootstrapping approach. Values for Phases 1, 2 and 3 are sequentially depicted for each percentile from 10th to 90th. The medians are represented by black circles.

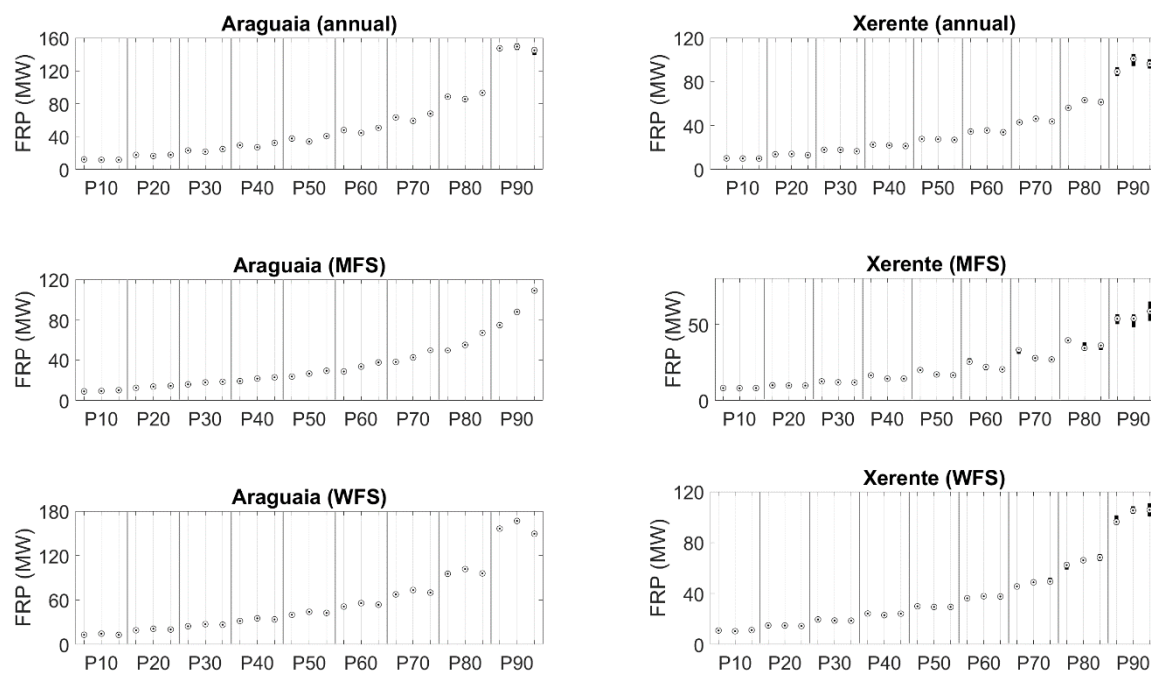


Figure S4. Same as in Figure S3, but for FRP.

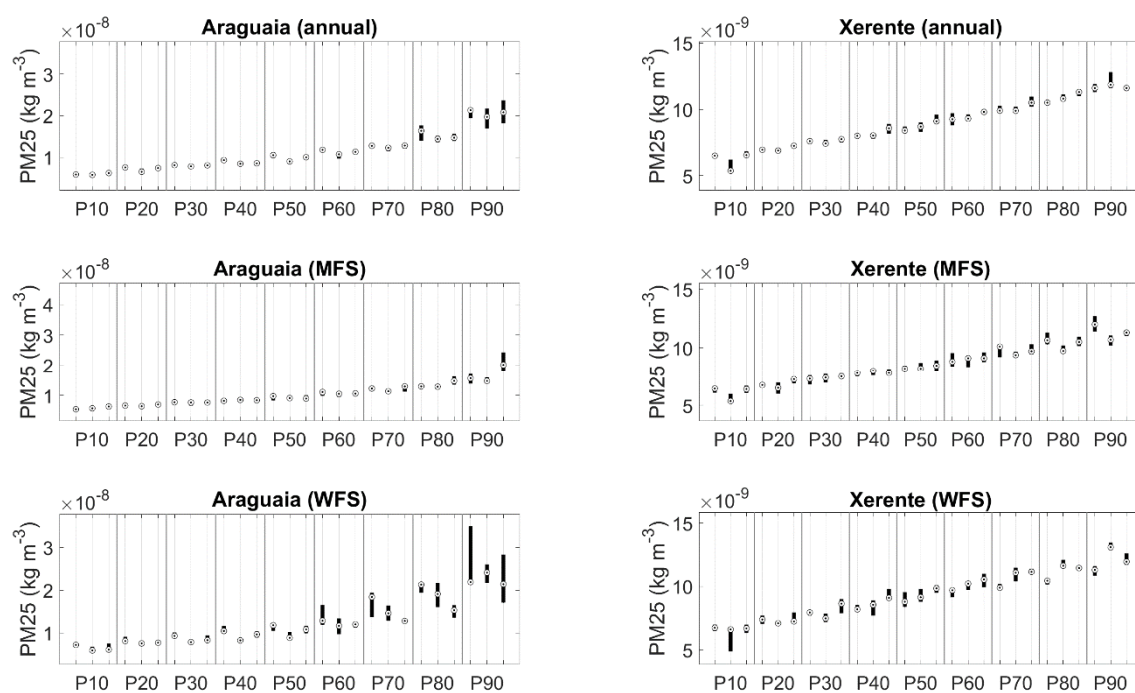


Figure S5. Same as in Figure S3, but for PM_{2.5}.