

Supplementary Material

Table S1 Days (%) with PM_{2.5} (µg/m³) concentrations above 15µg/m³ for all state capitals and 10 municipalities *. Brazilian Amazon and Central-West Region, 2010-2019.

| Municipalities (State) | Accumulated number of days with PM _{2.5} > 15µg/m ³ | % number ** of days with PM _{2.5} > 15µg/m ³ | Accumulated number of days with PM _{2.5} > 15µg/m ³ excluding 99th percentile | % number ** of days with PM _{2.5} > 15µg/m ³ excluding 99th percentile |
|------------------------|---|--|---|--|
| Cláudia (MT) | 1,814 | 49.70 | 1,784 | 48.88 |
| Careiro (AM) | 1,751 | 47.97 | 1,721 | 47.15 |
| Manacapuru (AM) | 1,740 | 47.67 | 1,708 | 46.79 |
| Manaquiri (AM) | 1,740 | 47.67 | 1,708 | 46.79 |
| Manaus (AM) | 1,738 | 47.62 | 1,706 | 46.74 |
| Careiro da Várzea (AM) | 1,735 | 47.53 | 1,705 | 46.71 |
| Iranduba (AM) | 1,732 | 47.45 | 1,704 | 46.68 |
| Nova Maringá (MT) | 1,706 | 46.74 | 1,669 | 45.73 |
| Caseara (TO) | 1,697 | 46.49 | 1,668 | 45.70 |
| Feliz Natal (MT) | 1,678 | 45.97 | 1,645 | 45.07 |
| Belém (PA) | 1,665 | 45.62 | 1,631 | 44.68 |
| Porto Velho (RO) | 1,567 | 42.93 | 1,537 | 42.11 |
| Brasília (DF) | 1,318 | 36.11 | 1,283 | 35.15 |
| Boa Vista (RR) | 1,259 | 34.49 | 1,228 | 33.64 |
| Goiânia (GO) | 1,254 | 34.36 | 1,223 | 33.51 |
| Palmas (TO) | 1,110 | 30.41 | 1,078 | 29.53 |
| Rio Branco (AC) | 1,100 | 30.14 | 1,071 | 29.34 |
| Cuiabá (MT) | 1,096 | 30.03 | 1,061 | 29.07 |
| Macapá (AP) | 867 | 23.75 | 830 | 22.74 |
| São Luís (MA) | 593 | 16.25 | 559 | 15.32 |
| Campo Grande (MS) | 384 | 10.52 | 347 | 9.51 |

AC: Acre State; AM: Amazonas State; AP: Amapá State; DF: Distrito Federal; GO: Goiás State; MA: Maranhão State; MS: Mato Grosso do Sul State; MT: Mato Grosso State; PA: Pará State; RO: Rondônia State; RR: Roraima State; TO: Tocantins State.

* Highest percentages of the days with PM_{2.5} above 15µg/m³

** Percentages obtained by equation c.

Table S2 Descriptive statistics of daily PM_{2.5} averages for all state capitals and 10 municipalities *.
Brazilian Amazon and Central-West regions, 2010-2019.

| Municipalities (State) | Mean | Minimum | Maximum | Mean (dry season) ** | 99th percentile |
|-------------------------------|-------------|----------------|----------------|-----------------------------|------------------------|
| Cláudia (MT) | 32.91 | 1.55 | 1,233.75 | 72.74 | 309.18 |
| Careiro (AM) | 18.83 | 1.90 | 373.55 | 28.56 | 87.62 |
| Manacapuru (AM) | 17.94 | 1.45 | 277.65 | 26.13 | 67.04 |
| Manaquiri (AM) | 18.23 | 1.50 | 347.65 | 26.75 | 72.27 |
| Manaus (AM) | 17.87 | 1.15 | 165.00 | 24.67 | 65.21 |
| Careiro da Várzea (AM) | 18.28 | 1.05 | 259.30 | 26.09 | 75.68 |
| Irlanduba (AM) | 17.97 | 1.20 | 548.90 | 25.21 | 64.67 |
| Nova Maringá (MT) | 24.37 | 0.73 | 635.18 | 45.51 | 181.56 |
| Caseara (TO) | 31.10 | 0.25 | 1,220.70 | 80.83 | 384.48 |
| Feliz Natal (MT) | 40.66 | 0.45 | 1,884.80 | 107.82 | 547.41 |
| Belém (PA) | 16.77 | 2.40 | 124.88 | 19.29 | 56.72 |
| Porto Velho (RO) | 29.82 | 1.80 | 1,136.53 | 71.29 | 307.71 |
| Brasília (DF) | 14.86 | 0.45 | 274.88 | 20.94 | 67.15 |
| Boa Vista (RR) | 14.61 | 1.78 | 105.85 | 17.61 | 48.09 |
| Goiânia (GO) | 14.23 | 0.75 | 99.93 | 16.08 | 45.33 |
| Palmas (TO) | 17.13 | 0.20 | 467.85 | 36.28 | 115.49 |
| Rio Branco (AC) | 18.51 | 0.25 | 539.00 | 40.99 | 152.72 |
| Cuiabá (MT) | 16.65 | 0.00 | 644.35 | 33.76 | 123.62 |
| Macapá (AP) | 12.19 | 0.60 | 126.45 | 12.53 | 48.50 |
| São Luís (MA) | 11.50 | 2.40 | 83.25 | 10.42 | 37.42 |
| Campo Grande (MS) | 8.62 | 0.50 | 137.48 | 12.40 | 41.17 |

AC: Acre State; AM: Amazonas State; AP: Amapá State; DF: Distrito Federal; GO: Goiás State; MA: Maranhão State; MS: Mato Grosso do Sul State; MT: Mato Grosso State; PA: Pará State; RO: Rondônia State; RR: Roraima State; TO: Tocantins State.

* Highest percentages of the days with PM_{2.5} above 15 µg/m³;

** Dry Season: January to March for Boa Vista; October to December for Belém, São Luís and Macapá; and August to October for the other municipalities of MT, AM, RO, AC, TO, MS, DF and GO.

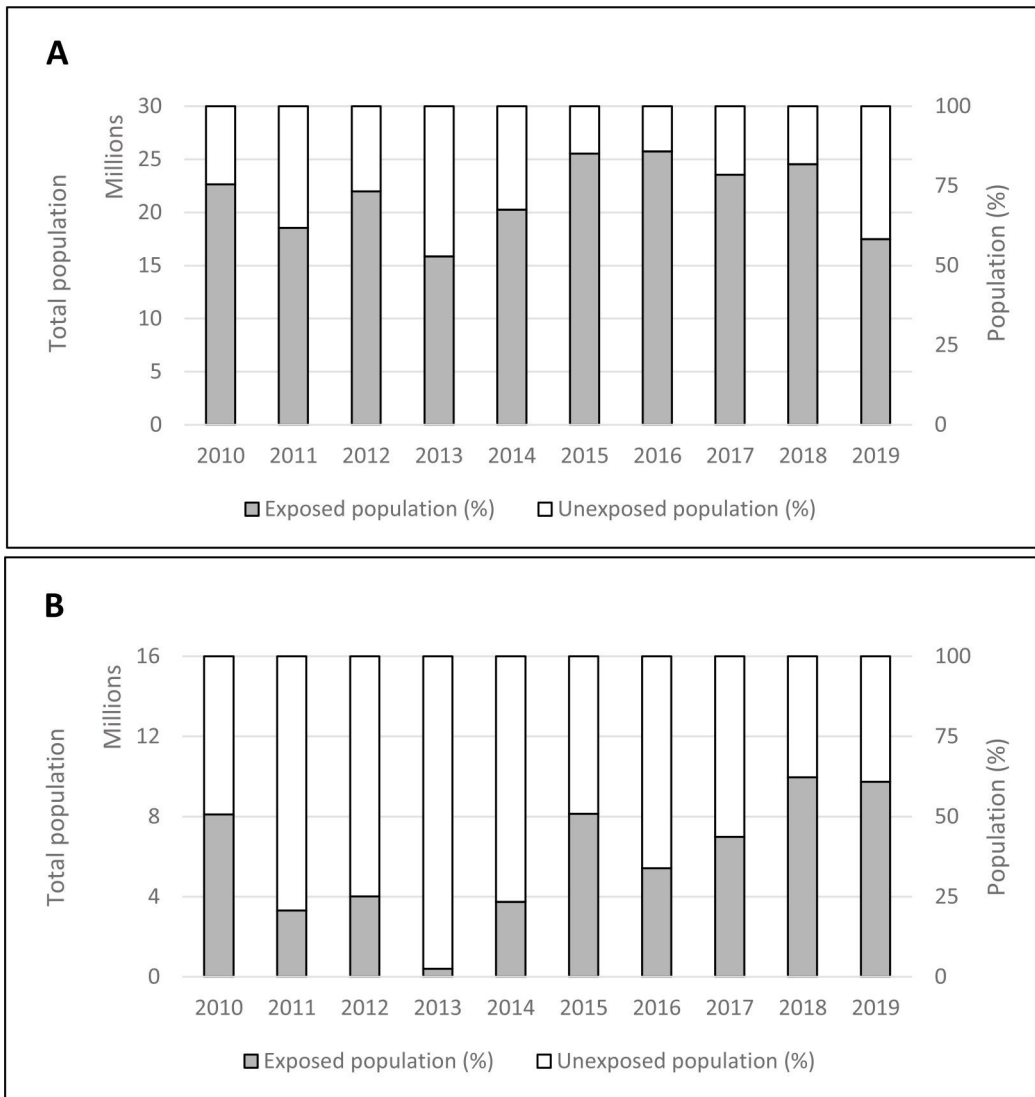


Figure S1 Absolute number and percentage of the population of the Brazilian Amazon (A) and Central-West Region (B) exposed to $PM_{2.5} > 15\mu g/m^3$ in 25% (3 months) or more of the days of the year, 2010-2019.

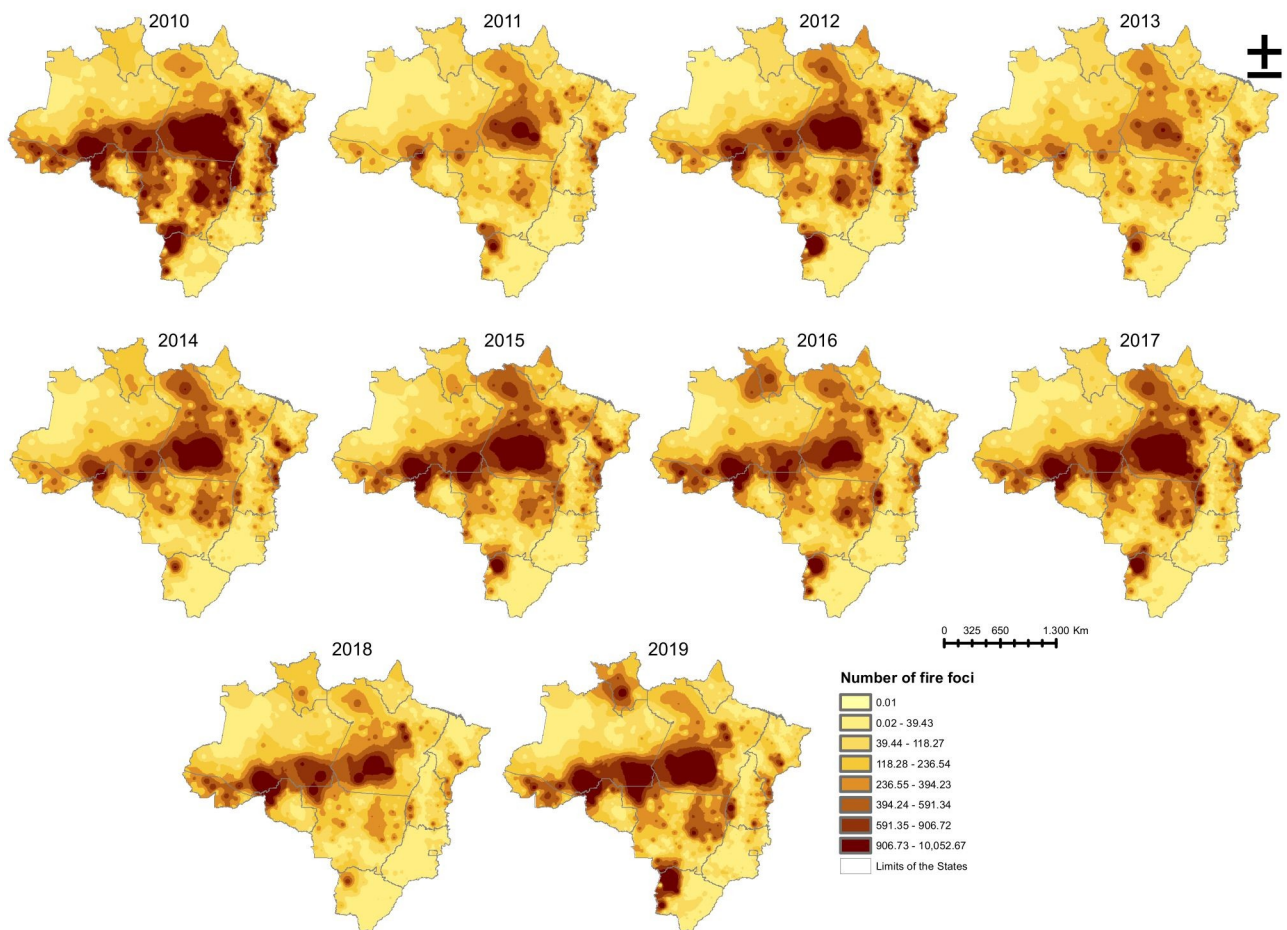


Figure S2 Number of hot spots per year in the Amazon and Central-West regions of Brazil, between 2010-2019.

Source: Brazilian Health Integrated Environmental Information System (SISAM).

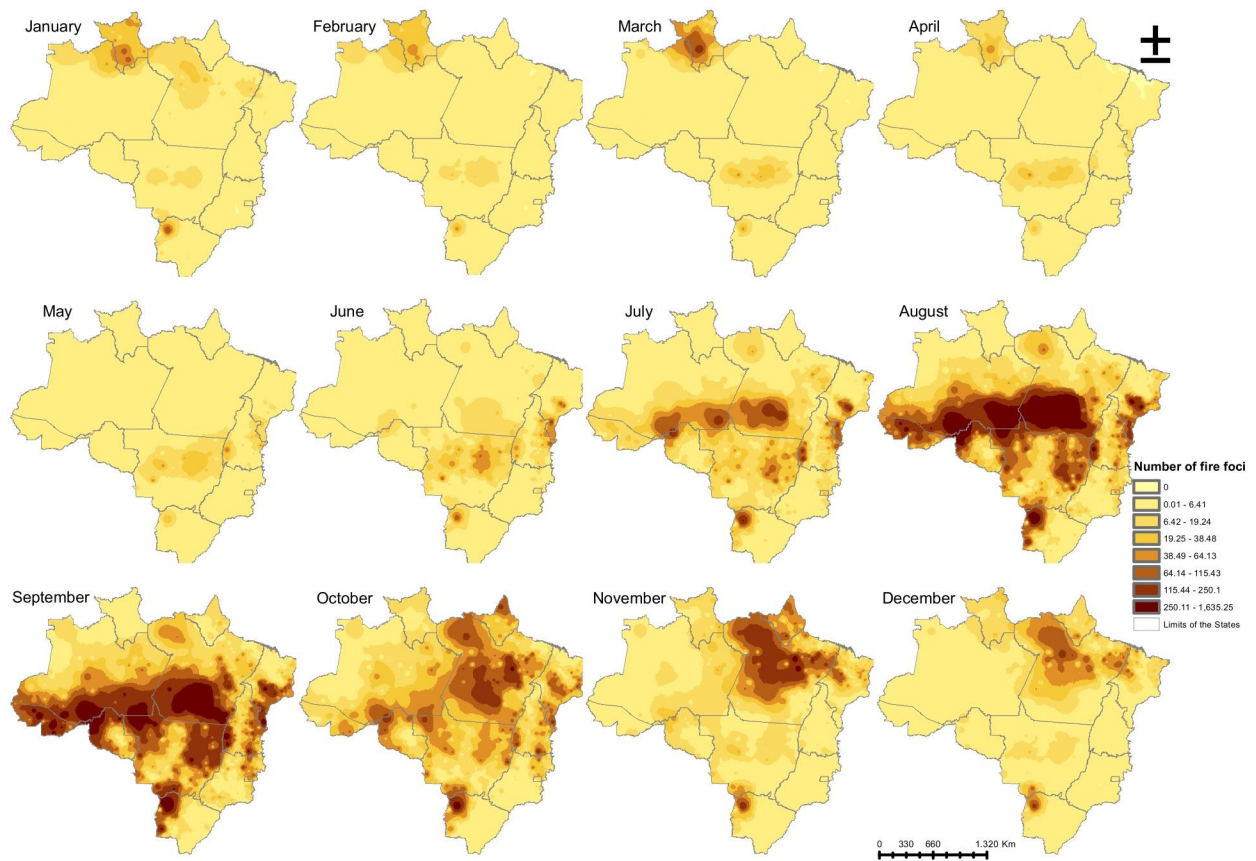


Figure S3 Number of hot spots per month in the Amazon and Central-West regions of Brazil, between 2010-2019.

Source: Brazilian Health Integrated Environmental Information System (SISAM).