

## **Vegetation burning in the year 2000: Global burned area estimates from SPOT VEGETATION data**

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[1] The scientific community interested in atmospheric chemistry, gas emissions from vegetation fires, and carbon cycling is currently demanding information on the extent and timing of biomass burning at the global scale. In fact, the area and type of vegetation that is burned on a monthly or annual basis are two of the parameters that provide the greatest uncertainty in the calculation of gas and aerosol emissions and burned biomass. To address this need, an inventory of burned areas at monthly time periods for the year 2000 at a resolution of 1 km<sup>2</sup> has been produced using satellite data and has been made freely available to the scientific community. In this paper, estimates of burned area and number of burn scars for four broad vegetation classes and reported at the country level for the year 2000 are presented using data taken from the inventory. Over 3.5 million km<sup>2</sup> of burned areas were detected in the year 2000, of which approximately 80% occurred in areas described as woodlands and shrublands. Approximately 17% of the burned area occurred in grasslands and croplands, the remaining 3% occurred in forests. Almost 600,000 separate burn scars were detected. Descriptions of vegetation burning activity are given for ten regions. Finally, monthly burned area estimates are presented for the Central African Republic to illustrate the usefulness of these data for understanding, monitoring and managing vegetation burning activities.

INDEX TERMS: 0305 Atmospheric Composition and Structure: Aerosols and particles (0345, 4801); 0315 Atmospheric Composition and Structure: Biosphere/atmosphere interactions; 1615 Global Change: Biogeochemical processes (4805); 1640 Global Change: Remote sensing; KEYWORDS: atmospheric chemistry, biomass burning, remote sensing

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