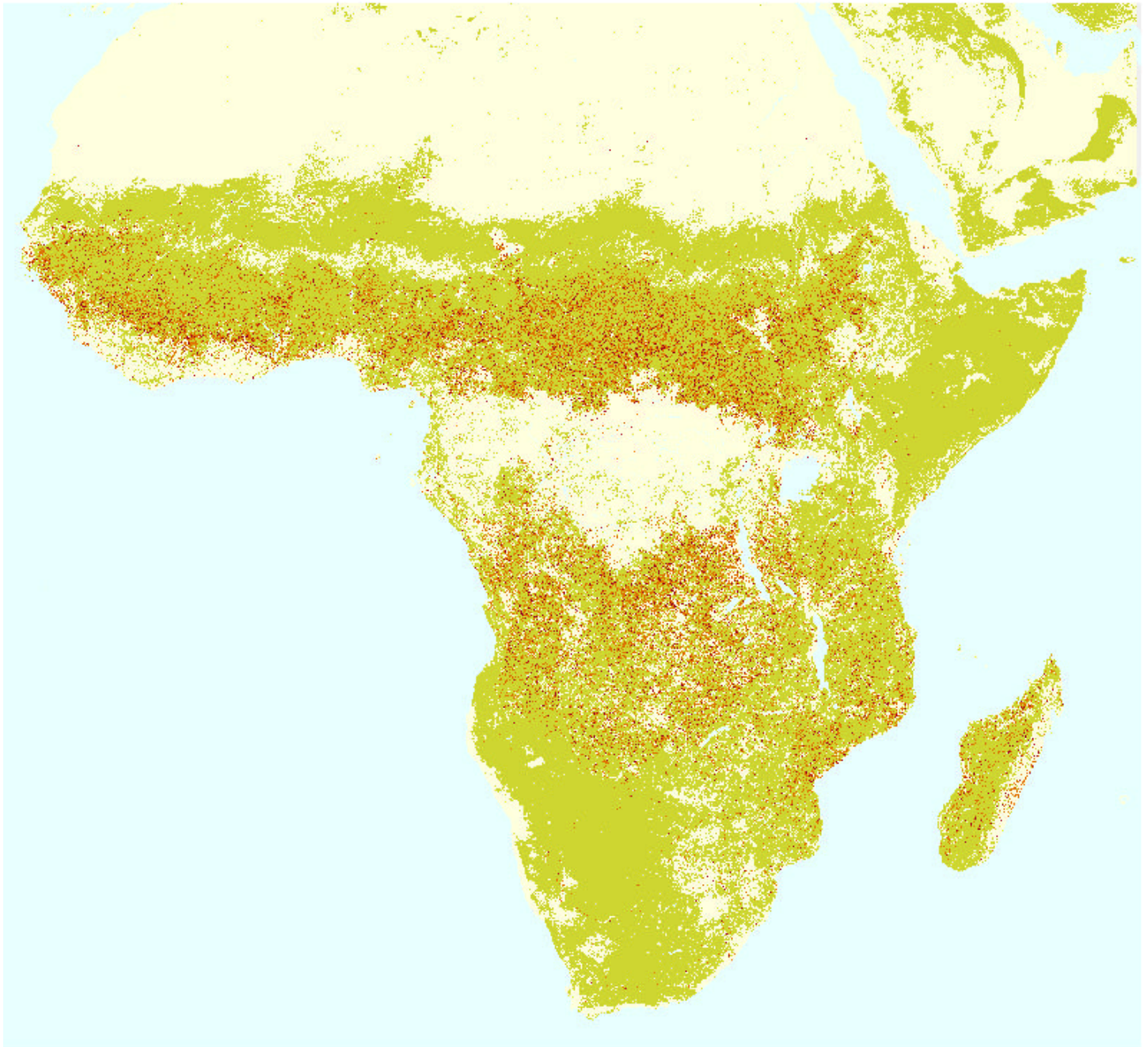


Fires and Grasslands of Africa



Map Projection: Interrupted Goode's Homolosine

Citation: World Resources Institute - PAGE, 2000

Notes:

Fire Data were collected by NOAA's Advanced Very High Resolution Radiometer (AVHRR) satellite during daylight passes in 1993. Cells where fires occurred have been enlarged to enhance visibility.



Analytical Overview:

The European Space Agency has used Advanced Very High Resolution Radiometer (AVHRR) satellite imagery to map the location of fires. Although some fires are recognized as critical to the maintenance of grassland ecosystems, and serve as an important management tool, new fire datasets showing broad-scale fire distribution raise new questions. Are the frequency and extent of fires shown in these maps typical or has there been a recent increase? What are the short- and long-term effects of these fires on ecosystem services? Continued monitoring using satellite data as well as field studies should provide answers.

Map Description:

Map 6 shows the location of all fires detected during 1993 for Africa, Latin America, and Indo-Malaysia/Oceania. Fire on the African continent appears to be confined by the Sahara Desert to the north, by the Horn of Africa to the east, and by the Kalahari Desert to the south (Arino and Melinotte 1998). Tropical rainforest serves as a fire boundary with fires greatest in the grasslands on either side of the equator. A somewhat similar pattern is found in South America where the least number of fires occur in the Amazon Basin and southern Patagonia, and the greatest number occur in the grasslands of eastern Brazil and Venezuela.

Source:

1. GLCCD, 1998. Global Land Cover Characteristics Database, Version 1.2.. Loveland, T.R., B.C. Reed, J.F. Brown, D.O. Ohlen, Z. Zhu, L. Yang, and J. Merchant. 1998. "Development of a Global Land Cover Characteristics Database and IGBP DISCover from 1-km AVHRR Data" International Journal of Remote Sensing 21(6-7): 1303-1330. Available On-line at: <http://edcaac.usgs.gov/glcc/glcc.html>. Global Land Cover Characteristics Database, Version 1.2. 2. Arino, O. and J.M. Melinotte. 1998. "The 1993 Africa Fire Map" . International Journal of Remote Sensing 19(11): 2019-2023