NASA image: Agricultural fires in Africa

June 3 2013

The Moderate Resolution Imaging Spectroradiometer on NASA's Terra satellite detected dozens of fires burning in central Africa on June 3, 2013. The fires are outlined in red. Most of the fires burn in grass or cropland, which is brownish in this image. Credit: Jeff Schmaltz LANCE/EOSDIS MODIS Rapid Response Team, GSFC. Caption by Lynn Jenner/NASA Goddard Space Flight Center

The Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Terra satellite detected dozens of fires burning in central Africa on June 03, 2013. The fires are outlined in red. Most of the fires burn in

grass or cropland, which is brownish in this image.

The location, widespread nature, and number of fires suggest that these fires were deliberately set to manage land. Farmers often use fire to return nutrients to the soil and to clear the ground of unwanted plants especially in places where open land for farming is not readily available because of dense vegetation are the places where slash and burn agriculture is practiced most often. These regions include central Africa, northern South America, and Southeast Asia, and typically within grasslands and rainforests.

This method of clearing fields, called "slash and burn" is a method of agriculture primarily used by tribal communities for subsistence farming (farming to survive). Humans have practiced this method for about 12,000 years, ever since the time when humans stopped hunting and gathering and started to stay put and grow crops. Today up to 7% of the world's population uses slash and burn agriculture.

While fire helps enhance crops and grasses for pasture, the fires also produce smoke that degrades air quality. In addition to pollution produced by agricultural fires is the possibility of deforestation, erosion, nutrient loss, and possible extinction of species. If a particular area is the only one that holds a particular species, slashing and burning could result in extinction for that species.

In central Africa, the agricultural burning season usually runs May through August as evidenced in this series of satellite shots of Africa taken in 2005 depicting fires across the continent. MODIS 2005 Africa Fire Season

Provided by NASA's Goddard Space Flight Center

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