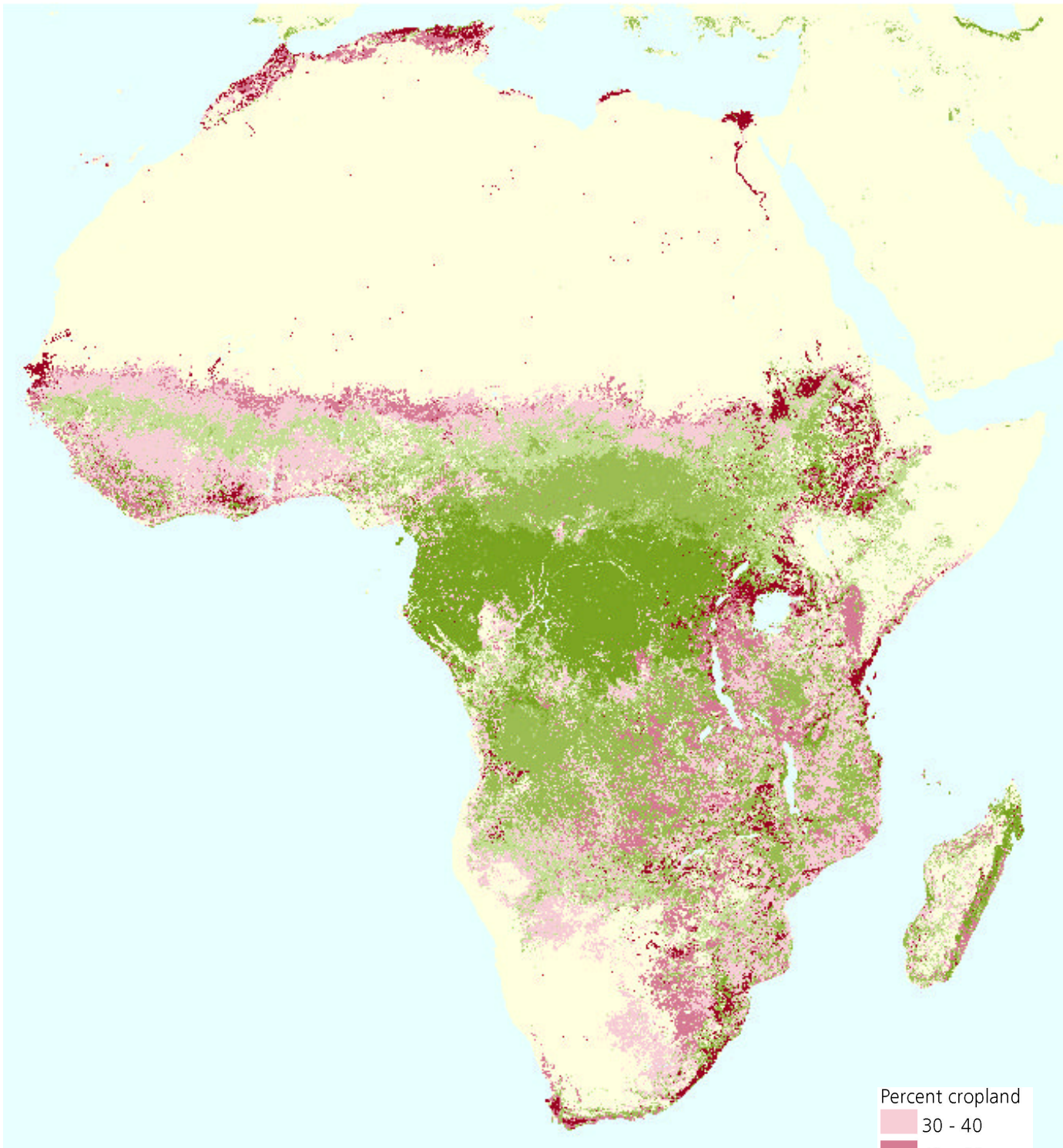


## Tree Cover and Cropland Mosaics in Africa



**Map Projection:** Interrupted Goode's Homolosine

**Citation:** World Resources Institute - PAGE, 2000

**Notes:**

**Analytical Overview:**

This map is based on a modified version of the IGBP vegetation classification scheme. The IGBP vegetation classes represent an aggregation of 917 seasonal land cover categories defined in the Global Land Cover Characteristics Database (GLCCD, 1998). The IGBP classes do not distinguish cropland from other vegetation in the class Forest/Other Vegetation Mosaics. For the PAGE, therefore, WRI reaggregated the 917 seasonal land cover categories to highlight forest/cropland mosaics. These represents mosaics that are human, rather than natural, in origin. A weakness of our approach is that even a small percentage of cropland results in the pixel being characterized as forest/cropland, and the degree of forest modification may be visually overstated. The pink areas of the map do not include natural forest/other vegetation mosaics where, nevertheless, agriculture may play a small role. Despite these weaknesses, the map demonstrates the degree to which intact forests are being fragmented by agriculture.

**Map Description:**

Transition zones are defined here as mixed forest/cropland mosaics, that is, zones created within formerly closed canopy forests - usually for subsistence agriculture, agroforestry, or silvipastoralism. The zones form a border between closed canopy forest and other ecosystems, such as grasslands or agricultural lands, and they represent a rapidly growing land cover category. The transition area between forest and other land cover is one of the most dynamic portions of forest ecosystems and makes up a significant fraction of forest ecosystems in many parts of the world. This map highlights the significant impact of humans in transforming closed canopy forest to open forest and mixed vegetation cover. Nearly 4 million km<sup>2</sup> of land in Africa now qualify as forest/cropland mosaics, where cropland accounts for between 30 percent and 40 percent of the vegetation cover and forests account for some part of the remainder. More than 1 million km<sup>2</sup> of land falls within the category of 30-40 percent cropland and 30-60 percent tree cover. A further 1.5 million km<sup>2</sup> of land falls within the category of 30-40 percent cropland and 10-30 percent tree cover. In total, therefore, more than 2.5 million km<sup>2</sup> of land in Africa that is commonly classified as forest should actually be seen as forest/cropland transition zone. Transition zones are commonly classified as forest because canopy cover still exceeds national, IGBP, or FAO thresholds. For this reason, thinning of canopy cover, progressive reduction of forest biomass, or other forms of forest degradation, go largely unreported.

**Source:**

1. Defries, R.S., M.C. Hansen, J.R.G. Townshend, A.C.,. 2000. "A new global 1-km data set of percentage tree cover derived from remote sensing." . *Global Change Biology* 6: 247-254