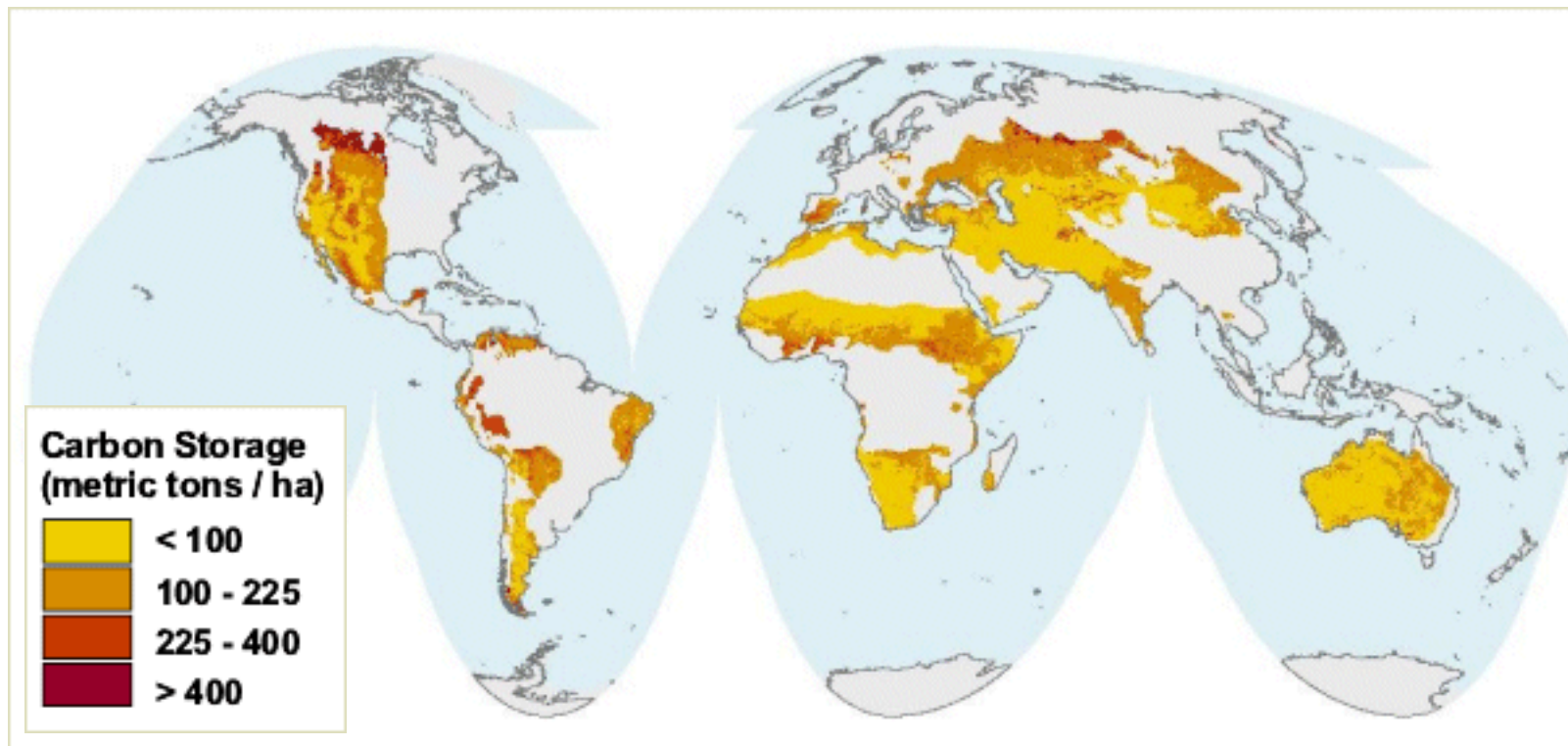


Drylands: Carbon Storage in Vegetation and Soils in Drylands



Map Projection: Interrupted Goode's Homosoline

Citation: WRI. 2002. World Resources Institute. Drylands, People, and Ecosystem Goods and Services: A Web-based Geospatial Analysis. Available online at: <http://www.wri.org>.

Analytical Overview:

This map represents the distribution and concentration of total global carbon stores in drylands, based on the modified high estimates of Olson et al. (above- and below-ground live vegetation), overlaid with WRI's estimate of soil carbon stores. The map is the result of combining the information from "Global Carbon Storage in Above- and Below-Ground Live Vegetation" and "Global Carbon Storage in Soils" (see those maps, located in "Climate and Atmosphere" for more information).

Description:

This map displays the global variation in the density of carbon storage in live vegetation (both above and below-ground). The carbon values are expressed as a range, in metric tons of carbon per hectare; this map shows storage values at the high end of the range.

In terms of quantity of carbon stored, tropical and boreal forests are outstanding. The values for carbon storage in vegetation in the tropics reach a maximum of 250 metric tons per hectare. Temperate forests and tropical savannas store less than the tropical and boreal forests. Non-woody grasslands and drylands store less than the forested areas, and sparsely vegetated and bare desert areas have the least carbon storage potential.

The carbon storage potential for drylands ranges from greater than 400 to less than 100 metric tons per hectare, although the majority of drylands store less than 225 metric tons per hectare. Thus, while drylands generally store less carbon than forests on a carbon/unit area basis, the total amount of carbon that drylands store is potentially significant because the area of these ecosystems is extensive.