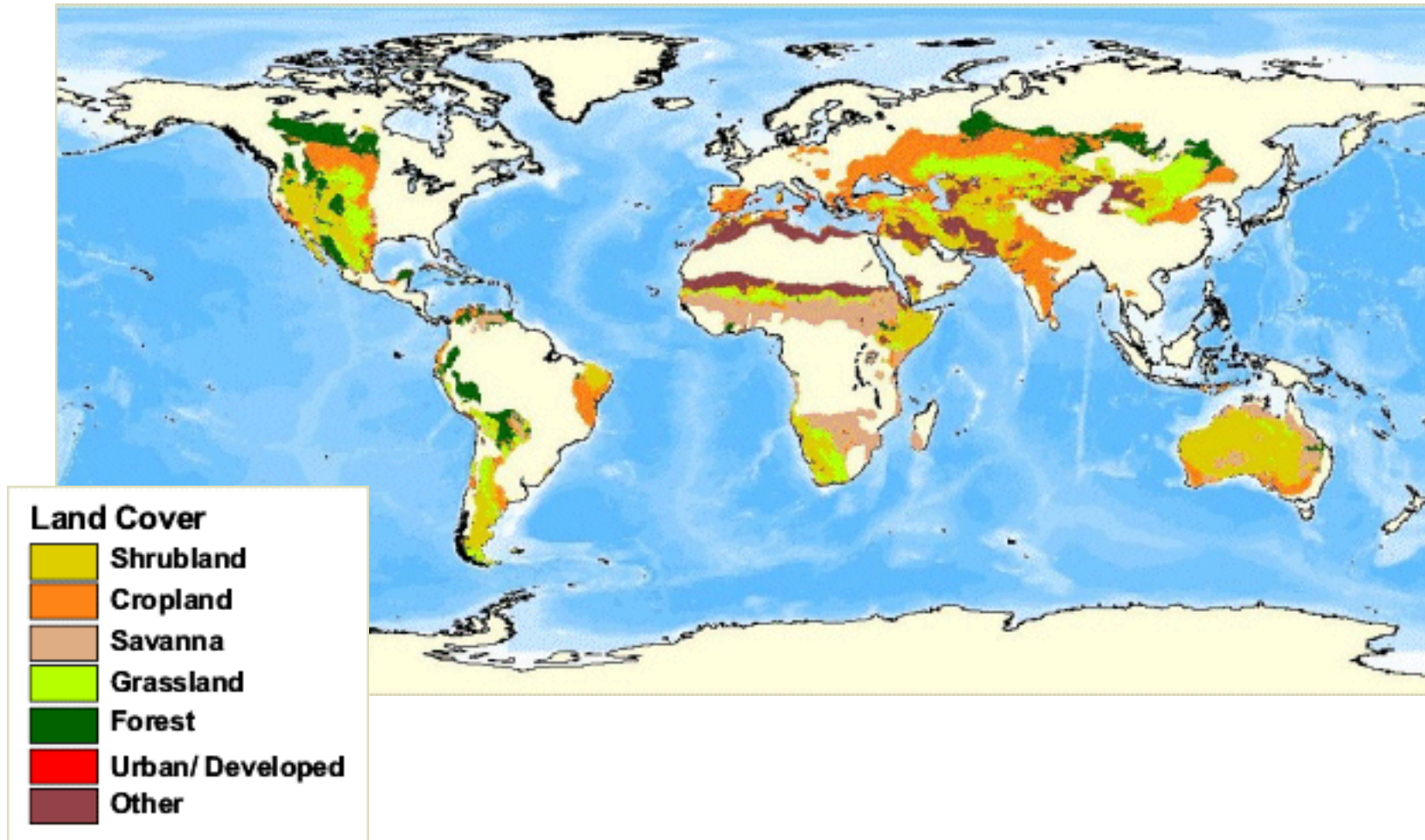


Drylands: Land Cover in Drylands



Map Projection: Geographic

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:

In this map, the GLCC/IGBP (Global Land Cover Characterization/ International Geosphere-Biosphere Programme) Version 1.2 landcover was clipped to the drylands extent. Land cover classes were condensed into eight classes: forest, shrublands, savanna, grassland, wetland, cropland/natural vegetation mosaic, urban and developed, and other (snow/ice, barren/sparsely vegetated, water).

Description:

To calculate the area of different land cover types within drylands, we have used a combination of datasets. Our primary source is the most recent available global dataset based on satellite imagery of land cover and vegetation types—the International Geosphere-Biosphere Project (IGBP) 1-km Advanced Very High Resolution Radiometer (AVHRR) land cover classification.

We have included from the IGBP legend, land characterized as shrubland including both open and closed shrublands; cropland including cropland mosaics (areas with up to 70 percent cropland mixed with forest or grassland); savanna including woody savannas; grassland (as non-woody or herbaceous grassland); forest including evergreen needleleaf, evergreen broadleaf, deciduous needleleaf; deciduous broadleaf; and mixed forest; and urbanized or developed areas.

For defining urbanized area, instead of using the Digital Chart of the World database, we modified the IGBP classification using a more recent dataset. The Nighttime Lights of the World database is a 1-km resolution map derived from nighttime satellite imagery. This data set identifies the locations of stable lights at night, indicating built-up areas.

In terms of the major land cover types, shrubland is the most predominant followed by cropland, savanna, grassland, forest, and urban areas. When the three aridity zones are examined separately, shrubland is most extensive in the arid zone; cropland, savanna, grassland, and urban areas are most extensive in the semi-arid zone; and forest is most common in the dry sub-humid zone. Although cropland is most extensive in the semi-arid zone, the extent of cropland within the dry sub-humid zone is relatively similar while the amount of cropland in the arid zone is considerably less.