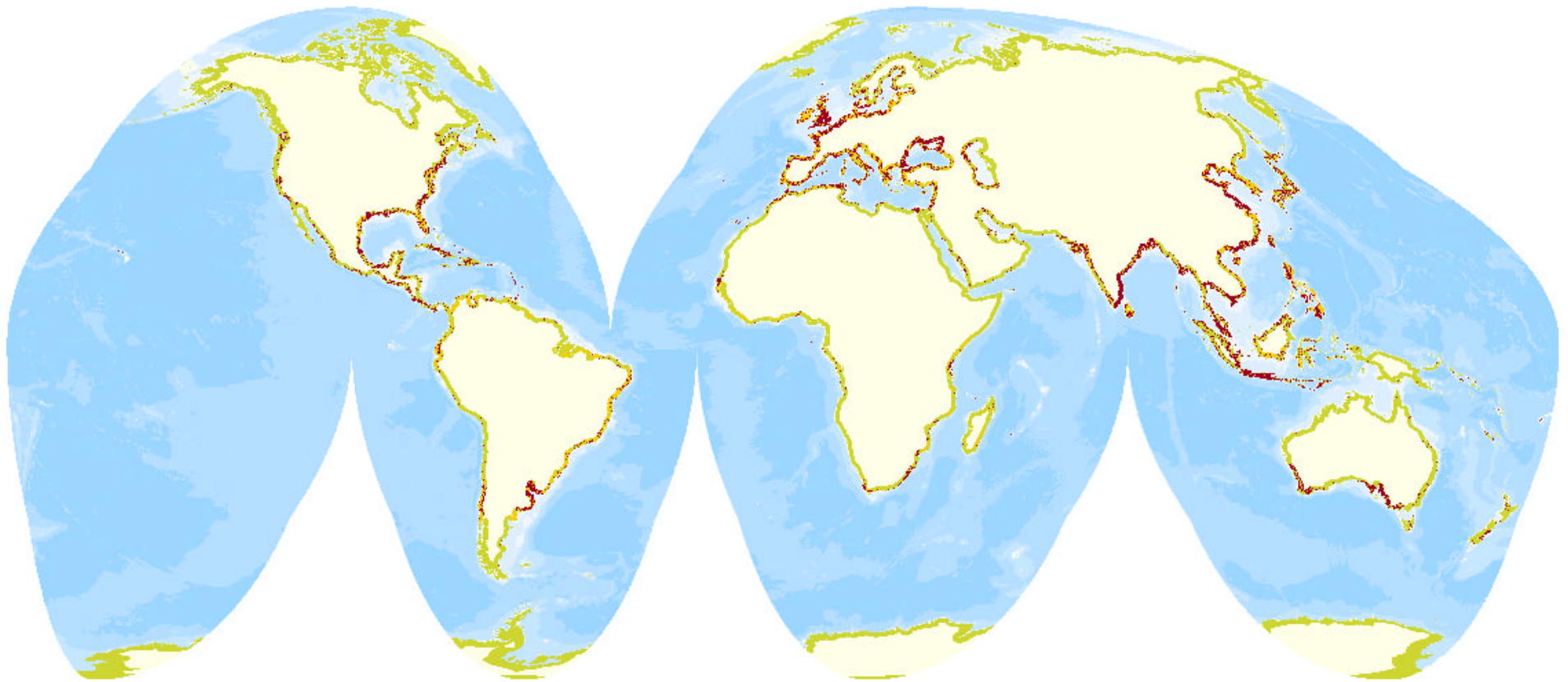


Natural versus Altered Landcover within 100 km of a Coastline



Map Projection: Interrupted Goode's Homolosine

Citation: World Resources Institute - PAGE, 2000

Notes:

Degree of Alteration

 Natural

 Semi-Altered

 Altered

Map Description:

The level of human alteration of landscape within coastal zone is shown in this map. Excluding Antarctica, 19 percent of all lands within 100 km of the coast are classified as "altered," meaning they are in agricultural or urban uses; 10 percent are classified as "semialtered," involving a mosaic of natural and altered vegetation; and 71 percent fall within the "natural" or least modified category, meaning that the natural habitat remains. This 71 percent includes large uninhabited areas of the world, mostly in northern latitudes. As shown here, the terrestrial coastal area surrounding the Black Sea, Mediterranean, and South Asia regions have the highest percentage of altered lands, while the coastal zone of the Arctic, Northeast Pacific, South Pacific, West and Central Africa, East Africa, Red Sea and Gulf of Aden, and Kuwait regions have the highest proportion of least modified landcover.

Analytical Overview:

In the absence of detailed estimates of habitat conversion, which would be more suitable in directly measuring the human modification of coastal ecosystems, PAGE estimated the overall level of alteration in coastal ecosystems by using remote sensing to evaluate how much terrestrial coastal area remains in natural vegetation, such as forests or grasslands, versus modified habitats, such as urban and agricultural lands. This analysis made use of the 1-kilometer resolution Global Land Cover Characteristics Database (GLCCD 1998) derived from the Advanced Very High-Resolution Radiometer (AVHRR) satellite data covering the period between 1992 to 1993. A classification using 15 different land cover classes (excluding water bodies) was used as the base for this analysis. Natural vegetation classes such as forests and grasslands were aggregated into "natural," urban and cropland classes into "altered," and vegetation/cropland mosaic class into "semialtered".

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.