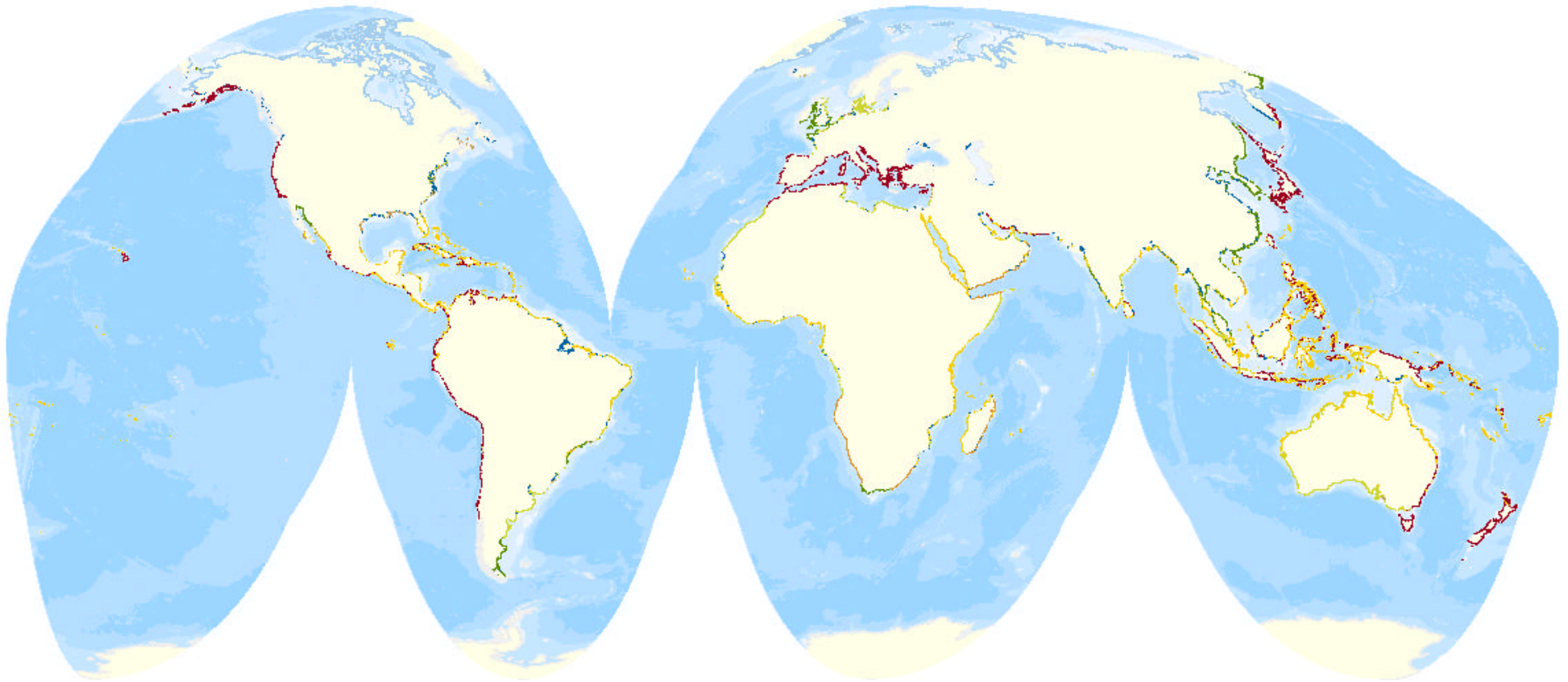


Natural Coastal Features



Map Projection: Interrupted Goode's Homolosine

Citation: World Resources Institute - PAGE, 2000

Notes:

Coastal Features

- Sea Ice
- Wetlands, Estuaries and Deltas
- Barrier Islands and BI Systems
- Mangroves and Coral Reefs
- Hilly, Narrow Shelf
- Plains, Narrow and Wide Shelves
- Hilly, Wide Shelf
- Mountainous, Narrow Shelf
- Unclassified

Map Description:

Here, the general distribution of natural characteristics in tidal and near-shore areas is illustrated. The characterization of the world's shoreline is based upon the occurrence of habitat types, such as coral reefs, mangroves, other tidal wetlands, barrier islands, estuaries, and sea ice. It also integrates information on continental shelf width and the slope of nearby terrestrial areas. As shown in Map 1, the world's coastlines are quite diverse in terms of physiographical characteristics. A mountainous, narrow shelf and some estuarine systems dominate the Mediterranean coastline, coral reefs and mangroves are predominant in the Middle East and Insular Southeast Asia, while East Africa has a varied coastline with coral reefs, mangroves, and coastal plains along a narrow shelf.

Source:

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6. NSIDC (National Snow and Ice Data Center). 1999, DMSP SSM/I Brightness Temperatures and Sea Ice Concentration Grids for the Polar Regions, 1987-1998. Boulder, CO: NSIDC Distributed Active Archive Center, University of Colorado at Boulder.
7. LOICZ (Land-Ocean Interactions in the Coastal Zone). 1998, Coastal Typology Dataset. Texel, The Netherlands: International Project Office, International Geosphere-Biosphere Programme. Available On-line at: <http://kellia.nioz.nl/loicz/data.htm>.
8. Stutz, M.L., 1999. Distribution of Barrier Islands.
9. UNEP-WCMC (United Nations Environment Programme - World Conservation Monitoring Centre). 1999, Global Coral Reef Distribution. Cambridge, UK: UNEP-WCMC.
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Analytical Overview:

The analysis was implemented at 1-kilometer resolution using multiple data layers showing distribution of various coastal habitat types. A hierarchical classification scheme was used to simplify the classification of complex ecosystems and overlapping habitat types. The generalized categories include sea ice, wetlands/estuaries/deltas, barrier islands and BI systems (where some habitat types may overlap), mangroves/coral reefs, hilly narrow shelf, narrow and wide shelf plains, hilly wide shelf, and mountainous narrow shelf. The hierarchy was determined based on both the quality of the data sets and the importance of these habitats for the ecosystem goods and services. This characterization is admittedly a gross simplification of the highly varied coastal environments of the world and it does not directly address climate, currents, or substrate. More complex or detailed characterizations are possible and should be explored at national or regional scales.