

Center for International Earth Science Information Network

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CIESIN is located at the Lamont-Doherty Campus of Columbia University in Palisades, New York. Its international staff have advanced training in a range of fields, including geography, demography, political science, history, economics, natural resource management, geophysics, information management, library science, geospatial technologies, software engineering and computer science.

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THE EARTH INSTITUTE COLUMBIA UNIVERSITY

The Earth Institute, Columbia University, mobilizes the sciences, education and public policy to achieve a sustainable Earth. Through interdisciplinary research among more than 500 scientists in diverse fields, the Institute is adding to the knowledge necessary for addressing the challenges of the 21st century and beyond. With over two dozen associated degree curricula and a vibrant fellowship program, the Earth Institute is educating new leaders to become professionals and scholars in the growing field of sustainable development. We work alongside governments, businesses, nonprofit organizations and individuals to devise innovative strategies to protect the future of our planet.

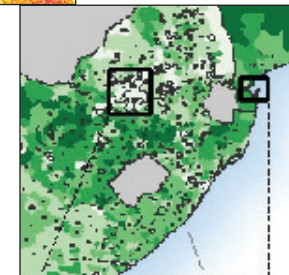
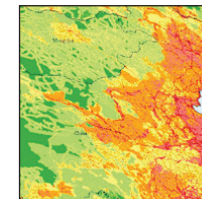
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Data and Information Resources



Environmental Sustainability and Change

Compendium of Environmental Indicators: Aids analysis of sustainability indicators from six collections.
sedac.ciesin.columbia.edu/data/collection/cesic

Environmental Performance Index (EPI): Assesses national performance with respect to environmental goals.
sedac.ciesin.columbia.edu/data/collection/epi

Natural Resource Management Index (NRMI): A composite of four indicators, updated annually to help assess country eligibility for funding by the US Millennium Challenge Corp.
sedac.ciesin.columbia.edu/data/collection/nrmi

Indicators of Coastal Water Quality: Chlorophyll-a concentrations from NASA's SeaWiFS are used to analyze coastal water trends, 1998–2007.
sedac.ciesin.columbia.edu/data/collection/icwq

Population, Landscape, and Climate Estimates: National-level aggregates of territorial extent and population size (urban and rural) by biome, climate zone, coastal proximity, and elevation.
sedac.ciesin.columbia.edu/theme/sustainability

Anthropogenic Biomes: Describes 21 anthropogenic biomes based on population density, land use, biota, climate, terrain, and geology.
sedac.ciesin.columbia.edu/data/collection/anthromes

Gridded Species Distribution v1: Downloadable data available in 1 km (30 arc-second) resolution grids in .BIL format, for global amphibian distributions and for birds/mammals in the Americas.
sedac.ciesin.columbia.edu/data/collection/species-v1

Global Distribution of Mangroves, 2000: Database on the extent of mangroves forests from the Global Land Survey and the Landsat archive at 30 m spatial resolution.
bit.ly/1QqZ834

Intergovernmental Panel on Climate Change (IPCC) Socioeconomic Data Distribution Centre (DDC): A Web site providing socioeconomic baseline and scenario data for use in climate impact assessments.
sedac.ciesin.columbia.edu/ddc/

Interactive Tools

Environmental Treaties & Resource Indicators (ENTRI): Online search and treaty status data.
sedac.ciesin.columbia.edu/data/collection/entri

Population Estimation Service: A Web-based service for easily estimating population totals for specific areas.
bit.ly/1NXjhw5

SEDAC Map Client: An interactive mapping tool enabling different thematic views of the NASA SEDAC data collection.
sedac.ciesin.columbia.edu/maps/client

The NPL Superfund Footprint Mapper: An interactive, online mapping application that visualizes demographic and environmental data for communities near U.S. hazardous waste sites.
superfund.ciesin.columbia.edu/sfmapper/index.html

Climate and Health Analysis for Global Education Viewer (Change Viewer): 3D NASA World Wind technology is used to visualize climate change impacts on human health.
climatechangehumanhealth.org/changeviewer/

Africa Soil Information Service (AfSIS) Map Tool: Displays geo-referenced digital elevation, topographic wetness, specific catchment area data, and other parameters.
africasoils.net/data/datasets

Haiti Interactive Map Tool: Displays data for development indicators relating to Haiti's southwest coast.
haiti.ciesin.columbia.edu/haiti_mapclient/

RAMSAR Map Client: A Web-based service for assessing the exposure to sea level rise of coastal wetlands designated as Ramsar Wetlands of International Importance.
sedac.ciesin.columbia.edu/data/coection/lec/z/ramsar-slr-client

Population and the Environment

Gridded Population of the World (GPW), v3: SEDAC's flagship data product provides population size/density in a gridded format (2.5 arc-minutes) easily combined with earth science data.
sedac.ciesin.columbia.edu/data/collection/gpw-v3

Global Rural-Urban Mapping Project (GRUMP), v1: Includes a global point database of human settlements, an urban extent mask, and a 1km population grid.
sedac.ciesin.columbia.edu/data/collection/grump-v1

The Global Estimated Net Migration Grids by Decade: Estimates of net migration over three decades, 1970 to 2000.

Millennium Ecosystem Assessment: Data sets used in the Millennium Ecosystem Assessment (MA) to assess conditions and trends in ecosystems.
sedac.ciesin.columbia.edu/data/collection/ma

Population in the Low-Elevation Coastal Zone (LECZ): The numbers and proportions of the world's population located in the LECZ (all areas below 10 meters elevation).
sedac.ciesin.columbia.edu/data/collection/lec/z

Global Roads: Includes the public-domain Global Roads Open Access Data Set (gROADS) and a catalog of roads data.
sedac.ciesin.columbia.edu/data/collection/globalroads

U.S. Census Grids: Census block and block group boundaries are transformed into grids for faster, easier analysis.
sedac.ciesin.columbia.edu/data/collection/usgrid

Historical Anthropogenic Sulfur Dioxide Emissions: Annual estimates of anthropogenic sulfur dioxide emissions, 1850–2005.
sedac.ciesin.columbia.edu/data/collection/haso2

Global Fertilizer and Manure: Global data on fertilizer application and manure production of nitrogen and phosphorus.
sedac.ciesin.columbia.edu/data/collection/ferman-v1

Global Reservoir and Dam (GRAND), v1: 6,862 satellite-imaged records of reservoirs and associated dams.
sedac.ciesin.columbia.edu/data/collection/grand-v1

Human Footprint and Last of the Wild: Global data on the intensity and extent of human land use and remaining "wild" places.
sedac.ciesin.columbia.edu/data/collection/wildareas-v2

Global Agricultural Lands: Estimates the proportion of land area in cropland and pasture for the year 2000.
sedac.ciesin.columbia.edu/data/collection/aglands

Human Appropriation of Net Primary Productivity: Global patterns of net primary productivity (NPP) and human consumption.
sedac.ciesin.columbia.edu/data/collection/hanpp

Poverty, Health, and Hazards

Global Poverty Mapping Project: Global spatial data sets of infant mortality and malnutrition and country-level data sets with subnational measures of poverty for 28 countries.
sedac.ciesin.columbia.edu/povmap

Satellite-Derived Environmental Indicators: Estimates of annual PM_{2.5} concentrations over a 10-year period derived from NASA MODIS and MISR satellite data.
sedac.ciesin.columbia.edu/data/collection/sdei

Energy Infrastructure: Locations of nuclear power facilities with associated attributes, and country-level estimates of populations in proximity to locations with at least one operating reactor as of March 2012.
<http://sedac.ciesin.columbia.edu/data/collection/energy>

Superfund Site Footprints: Population totals and demographic characteristics of locations in proximity to Superfund National Priorities List (NPL) sites in the US, for the year 2000.
sedac.ciesin.columbia.edu/data/collection/superfund

Natural Disaster Hotspots—A Global Risk Analysis: A global geospatial data set on six major natural hazards and associated risks of mortality and economic loss.
sedac.ciesin.columbia.edu/data/collection/ndh