

PERN eLibrary Data and Applications

Wastewater-Webmap

Visulaization tool for wastewater pollution, that maps the sources and destinations of nitrogen created by researchers at UC Santa Barbara

Wastewater-Webmap. University of California in Santa Barbara.

DOI: <http://www.globalwastewatermodel.com/> 

Application

Year: 2021

Population & Water Demand Projections

This site provides a variety projections (1990-2050) for Texas, including county population projections, city population projections, regional population projections, regional municipal water demand projections, manufacturing water demand projections, steam electric water demand projections, mining water demand projections, livestock water demand projections, and irrigation water demand projections. Projections are available in Excel.

Population & Water Demand Projections. Texas Water Development Board

Link(s)

<https://www.twdb.texas.gov/waterplanning/data/projections/> 

Data

Year: 2017

DHS Modeled Map Surfaces

The DHS Program provides a standard set of spatially modeled map surfaces for recent population-based survey. Each modeled surfaces is produced using standardized geostatistical methods, publically available DHS data, and a standardized set of covariates across countries. Each map package contains a mean estimate surface, an uncertainty surface, and corresponding information on the model creation process and validation.

Spatial Data Repository, The Demographic and Health Surveys Program. Modeled Surfaces. ICF International. Funded by the United States Agency for International Development (USAID). Available from spatialdata.dhsprogram.com

Link(s)

<https://spatialdata.dhsprogram.com/modeled-surfaces/> 

Data

Year: 2016

UrbanSim Project

UrbanSim is a software-based simulation model for integrated planning and analysis of urban development, incorporating the interactions between land use, transportation, and public policy. It is intended for use by Metropolitan Planning Organizations and others needing to interface existing travel models with new land use forecasting and analysis capabilities. The UrbanSim software, including full source code, is available for download via this website. (from Introduction)

UrbanSim Project


Link(s)

<https://www.urbansim.com/urbansim/> 

Application

Year: 2014

Population, Landscape, and Climate Estimates (PLACE)

The Population, Landscape, and Climate Estimates data sets, PLACE I, II, and III, are part of SEDAC's National Aggregates of Geospatial Data Collection. The aim of PLACE is to provide country-level measures of spatial characteristics for a series of statistical areas (countries and other UN recognized territories) to researchers for whom national aggregates in tabular format are more useful than spatial data. 



PLACE estimates the number of people (head counts and percents) and the land area (square kilometers and percents) within multiple physical, biological and climate variable themes, for statistical areas around the world. These themes include: biomes, climate zones, coastal proximity zones, elevation zones, and population density zones.

Population, Landscape, and Climate Estimates (PLACE)

DOI: <https://dx.doi.org/10.7927/H4F769GP> 

Link(s)

<https://sedac.ciesin.columbia.edu/data/collection/nagdc> 

Data

Year: 2012

Great Plains Population and Environment Data Series.

This document describes the Great Plains Population and Environment Database (GPPED) created at the University of Texas at Austin and at Colorado State University during 1995-1998. The database consists of a number of SAS data files at the University of Texas at Austin, as well as an experimental Web Site at Colorado State. The data represented are drawn from historical censuses of population and agriculture, historical and contemporary weather records, and a variety of other data about social and economic conditions, and the spatial and environmental circumstances of the Great Plains. (from Introduction)

Great Plains Population and Environment Data Series

Link(s)

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/207> 

Data

Year: 2010

Population, Resources, Environment and Development Databank (PRED Bank 4.0).

The Population, Resources, Environment and Development Databank (PRED Bank) is available on CD-ROM. The PRED Bank brings together data series dealing with various aspects of population, labour force, education, economic and social development, land, water and energy use. It also provides the texts of selected international treaties and conventions related to major environment and development issues. (from PRED website)

Population, Resources, Environment and Development Databank (PRED Bank 4.0). United Nations Population Division.

Link(s)

<https://www.un.org/esa/population/publications/predbank4/predbank.htm> 

Data

Year: 2005

Watersheds of the World CD

This CD provides maps of land cover, population density and biodiversity for 154 basins and sub-basins around the world. It lists indicators and variables for each of these basins and, where appropriate, provides links and references to relevant information. It further contains 20 global maps portraying relevant water resources issues. You will find colored buttons that function as a menu to select individual basins by continent. Each continental menu provides access to interactive maps and lists of basins per continent through which you can access individual basin profiles. There is also a button for the global indicator maps. All basin profiles and global maps can also be downloaded as PDFs. (from website)

Watersheds of the World CD

Link(s)

http://www.iucn.org/about/work/programmes/water/resources/wp_resources_publicati...

Data

Year: 2003

GEO Data Portal

Interactive dataset is the authoratative source for datasets used by UNEP. Includes socio-economic, demographic, feshwater, forests, emissions variables.

GEO Data Portal

Link(s)

<http://geodata.grid.unep.ch>

Data

Year: 2003

United Nations Environment Programme

Large collection of datasets with environmental themes. Includes thematic portals and regional portals (Latin America, Arctic, and Europe with more regional portals expected).

United Nations Environment Programme

Link(s)

<https://www.unep.org/>

Data

Year: 2003

IPAT-S - a Scripting Language for Sustainability Scenarios

IPAT-S is a scenario building tool for developing medium and long term scenarios for sustainability analysis. The scenarios include population, development, technology and environment indicators. It is a language in which models can be constructed. IPAT-S can be downloaded free from the Internet.

IPAT-S - a Scripting Language for Sustainability Scenarios

Link(s)

<https://sourceforge.net/projects/ipat-s/>

Application

Year: 2002

Last of the Wild, v2

This dataset was created to facilitate policy making aimed at conserving Last of the Wild. From this website you can download the "Human Footprint" dataset in Band Interleaf (BIL) format and the "Last of the Wild" dataset in BIL and ArcInfo Exchange (.e00) formats. (from Introduction)

Last of the Wild, v2

Link(s)

<https://sedac.ciesin.columbia.edu/data/collection/wildareas-v2> 

Data

Year: 2002

Water Research Network.

This is a collaborative effort, run by University of Bergen, Norway and sponsored by the Norwegian Research Council and the Government of the Netherlands' Maintains a multidisciplinary database of research, researchers and institutions dealing with fresh water issues all over the world (through history and now). The network include natural and social sciences as well as the humanities. The structure of the database is built around research projects and literature connected to thematic keywords, countries of research, watersheds, researchers and institutions'The searchable online database of literature, projects, conferences, other resources on water and society ' (excerpt from online description)

Water Research Network.

Link(s)

<http://water.nml.uib.no/> 

Data

Year: 2002

Country-level GDP and Downscaled Projections

National-level estimates of Gross Domestic Product(GDP) density for 1990-2100 and gridded GDP estimates for 1990 and 2025, developed under the guidance of the IPCC Task Group on Scenarios for Climate Impact Assessment (TGCIA). The site contains the data and a draft guidance paper and other supporting documentation. the site also contains popuation projection data for the same timeframe."

Country-level GDP and Downscaled Projections

Link(s)

<http://sres.ciesin.columbia.edu/tgcia/> 

Data

Year: 2002

Land Resources of Russia

In collaboration, IIASA and numerous national institutes in Russia created this CD-ROM within the framework of the land resources analyses of Russia. In this context land refers to combined resources including socio-economic conditions, natural conditions (climate, relief, soil, water, vegetation, etc.), and their interactions (productivity and land degradation). (from Foreword: http://www.iiasa.ac.at/Research/FOR/russia_cd/foreword.htm)

Land Resources of Russia

Link(s)

http://webarchive.iiasa.ac.at/Research/FOR/russia_cd/index.htm

Data

Year: 2002

Botswana's Future, Mozambique's Future, Namibia's Future: Modeling Population and Sustainable Development - Challenges in the Era of HIV/AIDS

The CD-ROM is part of the population-development-environment (PDE) framework of analysis and it presents major research findings, which are based on computer simulation models. These models are calibrated on data from the 1990s and test alternative long-term development paths (to the year 2021) of population, development and environment interactions. Four main research findings for Botswana and Namibia: There will be little future population growth; The more educated segment of the labor force will grow rapidly; HIV/AIDS will not cause an economic crisis; The governments can afford programs that provide HIV medication to all who need it; Even with HIV/AIDS, stress on water supply will increase. Five major findings for Mozambique: By 2020, HIV/AIDS will reduce the population size by 22%-31% ; HIV/AIDS will have little effect on the student-teacher ratios in primary schools; The more educated labor force will rapidly increase over time even with the expected levels of HIV/AIDS; In the base case, HIV/AIDS reduces real annual GDP growth between the years 2000-2020 from 6.6% to 5.7% ; Decreased population growth, due to HIV/AIDS, will not save Maputo's water system. The models are designed to help policy makers, stakeholders, NGOs, researchers, and others to look at possible future development paths. The findings have been discussed in both academic and political circles at the national and international levels, and this discussion may lead to closer collaboration among countries in the Southern African region on their vital longer-term challenges.

Botswana's Future, Mozambique's Future, Namibia's Future: Modeling Population and Sustainable Development - Challenges in the Era of HIV/AIDS

Link(s)

<http://webarchive.iiasa.ac.at/Research/POP/pde/> ,
<http://webarchive.iiasa.ac.at/Admin/INF/PR/PR-01.03.28.html> 

Application

Year: 2001

History Database of the Global Environment - HYDE

The website presents a History Database of the global Environment (HYDE), with data that can be used in such integrated environmental assessments. It is an update from an earlier version. The time horizon has been expanded where possible to the period 1700 - 1995 and adjusted to the new RIVM regional breakdown (excerpt from online description)

History Database of the Global Environment - HYDE

Link(s)

<https://www.pbl.nl/en/image/links/hyde> 

Data

Year: 2001

The Global Urban Observatory Databases

The Global Urban Observatory (GUO) has been established by UN-HABITAT in response to a decision of the United Nations Commission on Human Settlements, which called for a mechanism to monitor global progress in implementing the Habitat Agenda and to monitor and evaluate global urban conditions and trends. Its purpose is to address the urgent need to improve the world-wide base of urban knowledge by helping governments, local authorities and organizations of the civil society develop and apply policy-oriented urban indicators, statistics and other urban information. (online Background Information)

The Global Urban Observatory Databases

Link(s)

<https://unhabitat.org> 

Data

Year: 2001

Global Monitoring for Environment and Security (GMES)

The Global Monitoring for Environment and Security (GMES) programme will provide accurate, timely and easily accessible information to improve the management of the environment, understand and mitigate the effects of climate change and ensure civil security.

Global Monitoring for Environment and Security (GMES)

Link(s)

https://www.esa.int/About_Us/Ministerial_Council_2012/Global_Monitoring_for_Envi...,
<https://www.copernicus.eu/enenenen>

Data

Year: 2000

ILRI - International Livestock Research Institute Databases

The data portal makes ILRI's open access datasets globally available. The platform is also the main access point for data from the CGIAR Research Program on Livestock and Fish (CRP) and from other CGIAR research programs and centres as part of their cross-centre collaboration.

ILRI - International Livestock Research Institute Databases

Link(s)

<https://data.ilri.org/portal/>

Data

Year: 2000

Gridded Population of the World (GPW), Version 4

GPWv4 data collection product provides population size and density from the 2010 round of censuses in a gridded format (30 arc-seconds) that is easily combined with earth science data.

Center for International Earth Science Information Network - CIESIN - Columbia University.
2016. Gridded Population of the World, Version 4 (GPWv4). Palisades, NY: NASA
Socioeconomic Data and Applications Center (SEDAC),
<http://sedac.ciesin.columbia.edu/data/collection/gpw-v4>

Link(s)

<https://sedac.ciesin.columbia.edu/data/collection/gpw-v4>

Data

Year: 2000

LandScan

The LandScan data set is a worldwide population database compiled on a 30" X 30" latitude/longitude grid. Census counts (mainly at sub-national level) were apportioned to each grid cell based on probability coefficients, which are based on proximity to roads, slope, land cover and nighttime lights.

LandScan

Link(s)

<https://web.ornl.gov/sci/landscan/> 

Data

Year: 2000

Software for Population, Development, Environment (PDE) Analysis

This PDE Population Projection software can be used as a Population Module in a multi-sector Population-Development-Environment (PDE) analysis.

Software for Population, Development, Environment (PDE) Analysis

Link(s)

<https://iiasa.ac.at/web/home/research/researchPrograms/WorldPopulation/Publicat...> 

Application

Year: 2000

Great Plains Population and Environment Database

The Great Plains Population and Environment project is a multi-disciplinary effort to study the long-term history of relationships between the human population and the environment in an area of roughly 450 counties located in ten Great Plains states. The project team is made up of historians, sociologists, anthropologists, and ecologists, at the University of Texas at Austin and Colorado State University, with consultants at other universities. The key theoretical basis for the project is the recursive relationship between human impact and environmental change, so that both the human population and the rest of the environment can serve as acting force and acted-upon entity. Put another way, from our point of view, both the human population and the broader environment can be independent and dependent variables in an analysis, depending on time and prior events. We define the human role in these processes very broadly, so that we have already looked at the impact of government programs on land use, on the ways that different ethnic groups used the land, and on the ways that people in different environments within the Great Plains behaved politically. This database consists of a number of SAS data files at the University of Texas at Austin, as well as an experimental Web Site at Colorado State. The data represented are drawn from historical censuses of population and agriculture, historical and contemporary weather records, and a variety of other data about social and economic conditions, and the spatial and environmental circumstances of the Great Plains. Virtually all the data represent the experiences and circumstances of counties, the basic units of political geography in the United States. The data were collected to serve as a basis for understanding the long-term relationship between population, land use, and environment in the large and environmentally variable region known as the Great Plains. The largest part of the data reflect the long-term collection of information about agriculture and the practices of farmers undertaken by the U.S. Bureau of the Census and by the U.S. Department of Agriculture. The other large component of the data reflect the success of the U.S. Bureau of the Census in collecting population data since 1790." (author's abstract)

Great Plains Population and Environment Database

Link(s)

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/207> 

Data

Year: 1999

Georeferenced Population Data Sets of Mexico

Administrative boundaries, settlement locations and populations, and gridded population data for Mexico circa 1990. Includes place names, geographic coordinates of more than 30,000 urban and metropolitan places, and elevation data for more than 700 urban areas.

Georeferenced Population Data Sets of Mexico

Link(s)

<https://sedac.ciesin.columbia.edu/data/collection/geo-mex> 

Data

Year: 1999

Population and Geography Dataset

CID's geography data sets have been organized into three general groups: General Measures of Geography, Infectious Diseases, and Agricultural Measures. Agriculture data show: FAO soil suitability (two types), percent of Matthews'* cultivated land in each Köppen-Geiger** climate zone, percent of Matthews' cultivated land -- using a revised classification scheme -- in each Köppen-Geiger climate zone, percent land area in each Köppen-Geiger climate zone weighted by Matthews' cultivated land, percent land area in each Köppen-Geiger climate zone weighted by a revised Matthews' cultivated land classification, by country; Infectious disease data show: extent of infectious diseases (disarea.dta); areas with infectious diseases weighted by 1994 population (dispop.dta); and malaria: land area, and land area weighted by 1994 population (malaria.dta). Geography dataset includes: latitude and longitude of each country's centroid, elevation, mean distance to nearest coastline, mean distance to nearest coastline or sea-navigable river, distance from a country's centroid to nearest coastline, distance from a country's centroid to nearest coastline or sea-navigable river, percent of population within 100km of the coastline, percent of the population within 100km of the nearest coastline or sea-navigable river, percent of population in the geographic tropics, percent of population in the ecological tropics, percent land area in the geographic tropics, and the typical population density an average person experiences, by country. These data sets were created as part of The Center for International Development's ongoing research into the role of geography in economic development. They have been created between 1998 and 2000.

Population and Geography Dataset

Link(s)

<https://www.hks.harvard.edu/centers/cid> 

Data

Year: 1998

PHOENIX pluss: the population user support system

PHOENIX pluss is an interactive computer simulation model which enables to analyze, simulate and visualize population changes. These simulations can be done at different aggregation levels: PHOENIX advanced: Simulate fertility and mortality by making use of all underlying processes of birth and death; PHOENIX light: Exploring future demographic changes using existing and user-defined scenarios on total fertility rate, life expectancy and net migration; PHOENIX case studies: The advanced simulation model has been applied to the countries India, China, Mexico and the Netherlands. The results of these four countries can be looked at in detail...The project has resulted in a book; World Population in Transition, provides an integrated modelling framework allowing us to describe, position and analyze various population issues. A systems dynamic modelling approach is applied to describe the demographic transition as a composite of its underlying components: the epidemiological and fertility transitions. Future fertility behaviour and mortality patterns in major world regions are explored under varying socio-economic and environmental conditions by making use of the computer simulation model, PHOENIX pluss. From NIDI project webpage.

PHOENIX pluss: the population user support system

Link(s)

<https://www.pbl.nl> 

Data

Year: 1998

Center for Research on Social Reality [Spain] Survey, December 1994: Environment

This data collection is part of a series of nationwide surveys conducted from October 1990 to June 1996 in Spain. The questionnaires for each of these surveys consisted of three sections. The first section collected information on respondents' attitudes regarding personal, national, and international issues, and included questions on respondents' level of life satisfaction and frequency of visits with relatives, neighbors, and friends. The second section contained a topical module of questions that varied from survey to survey, with this survey's topic focusing on ecology and the environment. Among the issues investigated were opinions on current fertility and mortality levels, depletion of natural resources, causes of economic inequality among nations and among different regions in Spain, the most urgent environmental problems, promotion of economic development versus environmental protection, and possible solutions to environmental problems and who should be responsible for their implementation. Respondents also were asked if they participated in recycling programs and if they were willing to buy organic products even

though they were more expensive than nonorganic ones. Questions in the third section of the questionnaire elicited socioeconomic information, such as respondent's sex, age, marital status, size of household, occupation, education, religion, religiosity, place of birth, and income. Summary from the INTER-UNIVERSITY CONSORTIUM FOR POLITICAL AND SOCIAL RESEARCH webpage.

Center for Research on Social Reality [Spain] Survey, December 1994: Environment

Link(s)

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/6964> ↗,

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/17> ↗

Data

Year: 1994

Social, Economic, Environmental, Demographic Information System (SEEDIS)

The "Social, Economic, Environmental, Demographic Information System (SEEDIS)" is a research and development project at the Lawrence Berkeley Laboratory, supported by the U.S. Department of Energy (USDOE), U.S. Department of Labor (USDOL), and others. It was initiated in 1972 by USDOL as a demonstration project to link data from multiple sources. Since that time, the project has been expanded. SEEDIS's main purpose is to provide accurate and timely information for policy formulation, implementation and management. The SEEDIS Project addresses these information needs by providing a unified framework for data management, information retrieval, statistical analysis, and graphic display of data from a collection of databases for various geographic levels and time periods, drawn from the U.S. Census Bureau, the U.S. Environmental Protection Agency (USEPA) and the Department of Health and Human Services. SEEDIS contains information on Census, energy, environment, geography, health, population characteristics, and socioeconomic status. SEEDIS allows the user to produce graphical and map presentations of analyses of combinations of these data for a variety of geographic levels and scope. SEEDIS' census information relates to population size by major racial and ethnic groupings for 1970 and 1980. These data are variously available at the national, state, county, city and census tract level. SEEDIS' energy information relates to electrical generating capacity for 1960 through 1995. These data are available at the national, county, and standardized metropolitan statistical area (SMSA) level. The data system also contains 1970 residential housing data, and heating energy requirements in 1970, and biomass resources for 1976 and 2025 at the county geographic level. SEEDIS' environmental information relates to air quality measurements for criteria pollutants. The data are available for 1974 through 1976 at the census tract level. They are derived from the AIRS data system (formerly SAROAD). Assessments include total suspended particulates (TSP), sulfur and nitrogen dioxides, photochemical oxidants, ozone, carbon monoxide, sulfates, and total and nonmethane hydrocarbons. For each pollutant, county estimates of pollutant concentration (at the position of the county population centroid) were calculated as the weighted geometric means of measurements from nearby stations, including stations in nearby counties. The location of the air quality monitoring stations is also available from the National Air Monitoring Stations (NAMS) data system. SEEDIS' geographic information relates to the centroids of the 1970 household

populations. The data are available for a variety of geographic levels. The areas, centroids, and boundaries of census tracts and counties are also included. SEEDIS' health information relates to age-, sex-, and race-specific total mortality. The data are available for geographic levels as small as counties for the years 1969 through 1984. In addition, total annual leukemia mortality is available. Cancer incidence for 1973 through 1981 from the Surveillance, Epidemiologic, and End Results (SEER) registers is included for the states that participate in the program. SEEDIS' population relates to age-, race-, and sex-specific population counts (from the 1980 Census) and estimates for the years 1950 to 1987. The data are available for varying geographic levels. Estimates are available from a variety of sources. SEEDIS' economic information relates to labor force, employment by industry, income, education, fertility. It also contains data on the Census of agriculture and many county- and state-specific data.(from project description)

Social, Economic, Environmental, Demographic Information System (SEEDIS)

Link(s)

<https://www.osti.gov/biblio/5032947-seedis-project-summary-overview-social-econo...> 

Data

Year: 1972