



Center for International Earth Science Information Network

CIESIN, the Center for International Earth Science Information Network, is a research and data center of Columbia University's Earth Institute that addresses human interactions in the environment. Our focus is on the impacts of human activities and institutional arrangements on the environment, and, in turn, how environmental changes affect society.

CIESIN has several core programs and collaborates widely with partners around the world on projects related to environmental change and sustainability.

CIESIN is located at the Lamont Campus of Columbia University in Palisades, New York. Its international staff have advanced training in a range of fields, including geography, demography, political science, economics, natural resource management, information management, library science, geospatial technologies, software engineering, and computer science. For more information, please visit the CIESIN Web site at www.ciesin.columbia.edu

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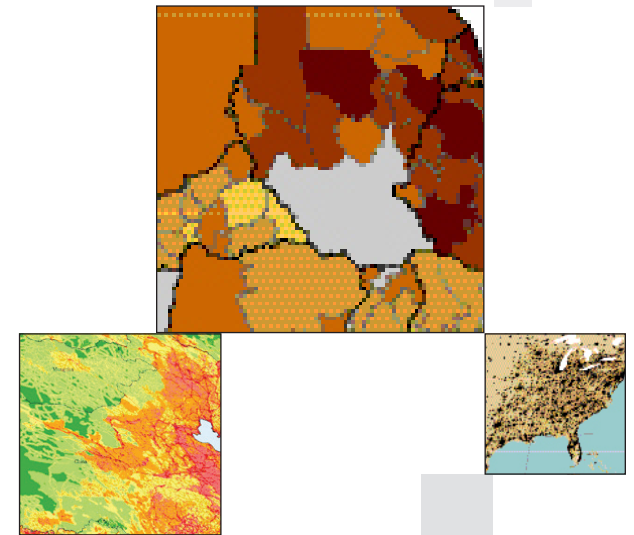


The Earth Institute at Columbia University is the world's leading academic center for the integrated study of Earth, its environment, and society. The Earth Institute builds upon excellence in the core disciplines—earth sciences, biological sciences, engineering sciences, social sciences, and health sciences—and stresses cross-disciplinary approaches to complex problems. Through research, training, and global partnerships, the Earth Institute mobilizes science and technology to advance sustainable development, while placing special emphasis on the needs of the world's poor. www.earth.columbia.edu

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Programs and Projects

Center for International Earth Science Information Network (CIESIN)



Programs

Socioeconomic Data and Applications Center (SEDAC)

One of eight NASA Earth Science Data Centers, SEDAC is the only to focus on socioeconomic data, complementing the other Centers' emphasis on earth science and remote sensing data.
sedac.ciesin.columbia.edu

World Data Center for Human Interactions in the Environment (WDC)

The CIESIN WDC is one of more than 50 data centers of the International Council for Science (ICSU) World Data Center System, focusing on the development, dissemination, and preservation of global socioeconomic data sets. The WDC portal includes an extensive map gallery and interactive map client.
sedac.ciesin.columbia.edu/wdc

National Biological Information Infrastructure-Northeast Information Node (NBII-NIN)

The NBII is an electronic information network of the U.S. Geological Survey that provides access to biological data and information on U.S. plants, animals, and ecosystems; NIN focuses on eight states in the Northeast.
nin.nbii.gov

Selected Collaborative Projects

Africa Soil Information Service (AfSIS)

A collaboration between the Earth Institute and African scientists and institutions, to develop detailed digital maps of soils in 42 countries of sub-Saharan Africa in support of sustainable agriculture. CIESIN is helping to build the information systems for collecting, analyzing, and disseminating the data to a wide range of end users. Funded by the Bill & Melinda Gates Foundation and the Alliance for a Green Revolution in Africa.
<http://www.africasoils.net/>

Cardiovascular Disease (CVD) and Urbanization in Modern China

CIESIN is collaborating with a medical researcher at Columbia University's College of Physicians and Surgeons to explore the implications of trends in urbanization and related population changes for future patterns of CVD in China.

CODATA Global Roads Data Set

CIESIN is co-leading an international group of experts under the ICSU Committee on Data for Science and Technology (CODATA), working to develop a global, publicly-available database on intercity roads. It will be used

for sustainable development, humanitarian response, transportation planning, and biodiversity conservation.
<http://www.ciesin.columbia.edu/confluence/roads>

Environmental Performance Index (2008 EPI)

A collaboration with the Yale Center for Environmental Law and Policy, in association with the World Economic Forum. The EPI measures progress toward environmental goals for 149 countries.
sedac.ciesin.columbia.edu/es/epi

Global Trends in Emerging Infectious Diseases (EIDs)

Study results in the journal *Nature* show EIDs are on the rise and zoonoses (diseases from wildlife) are the prime threat. Funded by the NSF, the team includes scientists from CIESIN, London's Institute of Zoology, CCM-Wildlife Trust NY, and The University of Georgia Odum School of Ecology.
<http://www.nature.com/nature/journal/v451/n7181/>

Hudson River Mapping Tool

CIESIN's NBII-NIN, with the Beacon Institute, has developed a Web-based data portal and mapping tool for exploring the physical and cultural geography of the Hudson River Watershed. Currently in beta review.
<http://beta.nbii-nin.ciesin.columbia.edu/beacon/mapviewer.jsf>

Hydrology and Conflict in Africa

An interdisciplinary exploration of the impact of drought on the incidence of civil war in Africa over the past three decades, in collaboration with UNH Water Systems Analysis Group and Peace Research Institute of Oslo.
www.nsf.gov/awardsearch/showAward.do?AwardNumber=0624167

Interactive Mapping Tool for HIV/AIDS Care Information Management Systems

An online interactive mapping tool for incorporation into HIV/AIDS care information management systems. Developed by CIESIN with the International Center for AIDS Care and Treatment Programs (ICAP) at Columbia University's Mailman School of Public Health.

Intergovernmental Panel on Climate Change (IPCC) Socioeconomic Data Distribution Centre

A data management operation shared between SEDAC, the UK's British Atmospheric Data Centre, and the World Data Center Climate at the Max Planck Institute for Meteorology in Hamburg, Germany. The DDC provides online access to baseline and scenario data on population, economic development, technology, and natural resources for climate impact assessments.
sedac.ciesin.columbia.edu/ddc

Land Use/Land Cover Change Issues in Latin America and the Caribbean

A collaborative NSF grant is exploring land use patterns in Latin America and the Caribbean, and how they are affected by demographic, economic, and ecological factors.

Polar Information Commons

A CODATA initiative co-led by CIESIN to develop an international framework for the long-term preservation of and access to polar region data, generated in part by the International Polar Year. Initial funding from ICSU.

Millennium Villages Project

CIESIN is providing data management support to a major initiative led by the Tropical Agriculture and Rural Environment Program of the Earth Institute, to achieve the Millennium Development Goals in 14 select rural communities in sub-Saharan Africa.
<http://www.millenniumvillages.org>

Population-Environment Research Network

Promotes online scientific exchange among researchers to advance academic research on population and the environment. Sponsored by the International Union for the Scientific Study of Population (IUSSP) and the International Human Dimensions Programme on Global Environmental Change (IHDP).
www.populationenvironmentresearch.org

Research Translation Core for Columbia University SBRP (Superfund Basic Research Program)

Led by the Mailman School of Public Health and sponsored by the NIH National Institute of Environmental Health Sciences, the Columbia SBRP studies the health effects, geochemistry, and remediation of arsenic and manganese in groundwater in Bangladesh and the U.S.
superfund.ciesin.columbia.edu

Risk Assessment and Mitigation Measures for Natural and Conflict-Related Hazards in the Asian Region

CIESIN contributed to a recently completed study led by the Norwegian Geotechnical Institute to assess the risks of natural hazards and civil conflict in Asia in support of the humanitarian response needs of the UN Office for the Coordination of Humanitarian Affairs.

Transatlantic Seminar Series

A seminar series on multiple risks in the context of sustainable development, co-organized by CIESIN, beginning spring 2009. Funded by Columbia University's Alliance Program, the seminars will be given by CIESIN and Earth Institute scientists at three universities in Paris, and by French scholars at Columbia.