

**THE CENTER FOR INTERNATIONAL EARTH SCIENCE
INFORMATION NETWORK (CIESIN)**
(www.ciesin.columbia.edu)

CIESIN, Columbia University's Center for International Earth Science Information Network, harnesses state-of-the-art information technologies to better understand the linkages among human and environmental systems. The center specializes in on-line data and information management, spatial data integration and training, and interdisciplinary research related to human interactions with the environment.

Designated the World Data Center for Human Interactions in the Environment by the International Council of Scientific Unions, CIESIN has broad experience in identifying and disseminating socioeconomic data related to the environment. It operates the Global Change Research Information Office (GCRIO) and the Socioeconomic Data and Applications Center (SEDAC), a data center within NASA's Earth Observing System program. Under the auspices of the latter, CIESIN has created georeferenced data at both global and regional scales. One example of this is the Gridded Population of the World (GPW) data set, which provides data on population and population density on a 2.5 minute grid (4.6 km at the equator) worldwide.

CIESIN has a diverse staff, including individuals with training in the computer and information sciences, economics, political science, demography, public health, geography, international affairs, history, library science, and ecology. CIESIN staff are proficient in software development, web and media design, systems integration, GIS, remote sensing, and other technologies. CIESIN is responsible for maintaining Columbia University's GIS site license and providing GIS training throughout the University. CIESIN has received numerous on-line awards for its work, including the Computerworld-Smithsonian Award for information technology in the category Energy, Agriculture, and Environment.

In the spring of 2000, a Memorandum of Understanding was signed between CIESIN, the Ramsar Bureau, and Wetlands International establishing a joint effort to create an online *Ramsar Wetland Data Gateway*. The Ramsar Wetland Data Gateway provides access to a multi-scale, multidisciplinary, diverse database, including spatial and tabular data, through a common search and visualization interface. This places the Ramsar site database in the context of other relevant data on the sustainable management of wetlands and other protected areas. CIESIN has also developed a prototype on-line Internet mapping application (ArcIMS) that enables users to access satellite-derived data products, socioeconomic information and Ramsar site-specific data from distributed sources (<http://alpha.ciesin.org/rivers/ramsar>, <http://sedac.ciesin.org/ramsardg>).

Experience and Projects Relevant to BRIM

- Experience working with data and non-governmental organizations addressing issues related to internationally designated protected areas and biodiversity:
 - Ramsar, IUCN, World Conservation Society (WCS)
- Extensive data management, achieving and metadata expertise:
 - SEDAC (<http://sedac.ciesin.columbia.edu>) and GCRIO (<http://www.gcrio.org>)
- Application of remote sensing data in support of environmental treaties:
 - Remote sensing and treaties workshop (<http://sedac.ciesin.columbia.edu/rs-treaties>)
- Database interoperability
 - Open GIS Consortium partner
 - Web Mapping Test Bed Sever participant
- Experience developing data base architecture and design
 - Infusion model, supporting diverse data collections including Ramsar and IUCN
- Resources of a major research university
- Experience developing distributed information systems
 - Clients include the Inter-American Institute for Global Change Research (IAI) and the World Bank – Sustainable Rural Development Information System

In summary, CIESIN places a high priority on the issues addressed by BRIM and is especially interested in collaborative projects aimed at meeting these objectives.