

UCGIS Urban Indicators Research

The University Consortium for Geographic Information Science (UCGIS) is coordinating research on "Global Urban Quality: An Analysis of Urban Indicators Using Geographic Information Science (GIS)." The research is funded by a grant from the U.S. Department of Housing and Urban Development (HUD). The participating universities are:

- University of Illinois, Urbana-Champaign
- University of Iowa
- Virginia Commonwealth University
- West Virginia University
- University of Wisconsin-Milwaukee

Each of these universities is collaborating with academic institutions and government agencies in emerging nations to develop web-based training and analysis programs on the application of geographic information systems for urban indicator modeling. The project is supporting the Urban Indicators Programme of the United Nation's Global Urban Observatory by using UCGIS member institutions to develop programs to train personnel in developing countries on the application of geographic information systems for disaggregating the macro level Urban Indicator data to a micro level. Through the use of GIS technology, the analysis will be refined to a "micro" level, disaggregating country data on indicators to cities and even to sub areas within cities to help evaluate the spatial dynamics of urban quality within larger metropolitan areas.

The University of Illinois at Urbana-Champaign team is headed by Drs Emily Talen, Farank Miraftab, Lewis Hopkins and Zorica-Nedovic-Budic. The University of Illinois is collaborating with the Kathmandu Mapping Project in Kathmandu, Nepal, the Department of Urban and Regional Planning at the Institute of Technology in Bandung, Indonesia, the Department of Information Systems Technology in Cape Town, South Africa, and the University of Botswana in Gaborone, Botswana.

Dr. Gerard Rushton and Michael McNulty head the University of Iowa team. The National Institute of Urban Affairs, New Delhi, India and the Department of Geography at the University of Ibadan, Nigeria are collaborating with the University of Iowa.

Drs Robert Rugg is heading the Virginia Commonwealth University team with Drs Weiping Wu and John Accordino. VCU is collaborating with the Center for Urban and Regional Studies at the University of San Carlos of Guatemala and the Open Research Laboratory of Remote Sensing at East China Normal University in Shanghai, China.

West Virginia University's team is headed by Dr. Calvin Masilela with Drs Gregory Elmes, Ge Lin and Daniel Weiner as co-principal investigators, and Dr. Brent McCusker as project administrator. The University of West Virginia will collaborate with the Universidade de Catolica de Mocambique in Beira, Mozambique.

Professor William Huxhold is heading the University of Wisconsin -- Milwaukee team with support from Dr. Laxmi Ramasubramanian. The City of Milwaukee, Wisconsin, the City of Dakar, Senegal, the Ecole Supérieure Polytechnique and the University of Cheikh Aanta Diop-Dakar are collaborators on the project.

The project principal investigators met in Washington DC February 6-7, 2001 for a Symposium on Urban Indicators. The agenda for this symposium included: 1) demonstrations of the capacity of UCGIS member institutions to perform the analyses; and, 2) investigation of the availability of data in the developing countries for incorporation into the developed analytical models.

West Virginia University and Virginia Commonwealth University presented preliminary results of research at a working session at HUD, September 2001. The other universities presented progress reports at the Urban and Regional Information Systems (URISA) conference in October 2001.

Another symposium is scheduled for January 9-11 in New York City. This symposium will present the results of the first year's research and will include participation of the international partners, HUD, UN, World Bank, and others.

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