



GeoInformation for Sustainable Urban Management and Resilience: A Program for Capacity-Building and Outreach

Program: “GeoInformation for Sustainable Urban Management and Resilience (GeoSUMR),” is designed to promote the use of geospatial tools and information by decision-makers in second-tier (primarily medium to large) cities in the developing world. The overarching goal is to improve the efficiency and sustainability of urban infrastructure and service delivery by linking infrastructure planning to both the natural resources and social characteristics of these rapidly growing urban centers. The development and application of an integrated approach will increase overall urban sustainability and resilience in the face of man-made and natural disasters.

The program supports several types of activities including: (1) workshops for urban professionals to facilitate the exchange of ideas and experience on the use of geospatial tools and information; (2) capacity building through training of urban professionals in second-tier cities in the use of geospatial tools, information collection and the application of geoinformation to improve urban management; and (3) research and pilot projects linked to increasing global urban sustainability. More detail can be found at <http://www.eoe.aag.org>.

Program support comes from a public-private partnership. Current partners include: **U.S. Department of State, the Association of American Geographers (AAG), Esri, Ecocity Builders, Trimble Navigation, Ltd., Ushahidi, the U.S. Green Building Council, the Environment Agency Abu Dhabi/AGEDI and Mundiapolis University, Casablanca, Morocco.** As the program expands additional partners will be sought from other U.S. Government Agencies, international organizations, non-government organizations, the private sector, and foundations.

Projects: The program is planned for implementation in developing regions worldwide. To date projects have been implemented in the Middle East-North Africa Region (MENA). Currently, we are exploring opportunities to work with regional organizations in South Asia, South America, East Asia, West Asia, and West Africa.

The initial project was a five day GIS/GPS training workshop and urban idea sharing forum in Amman, Jordan, attended by fifty professionals representing 10 countries. It was structured to help urban planners, policy-makers and technical experts apply geospatial tools and information to issues affecting their rapidly growing cities. The workshop provided training in the use of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). The forum provided an opportunity for planning

experts and policy-makers to discuss how geospatial tools and geoinformation are used in their countries to address a broad range of urban management and planning issues including water quality, sanitation and waste disposal, food safety, transportation, and energy efficiency.

The second project was a four day forum in Cairo, Egypt entitled “Space Technology and GeoInformation for Sustainable Development.” The event was jointly sponsored by the U.S. Department of State and the Egyptian National Authority for Remote Sensing and Space Sciences (NARSS). The event brought together scientists, technical experts, representatives of international organizations, U.S. and Egyptian Government Agencies, and universities and research institutes. Forty-two papers were presented on the applications of remote sensing and GIS to water resource management, agriculture, urbanization, geology and archaeological research. An outcome of the workshop was a US-Egypt joint document including a priority list of potential collaborative research projects for potential funding by the US-Egypt Fund for Science and Technology Cooperation.

In 2014, GeoSUMR executed the next series of pilot projects, training workshops and idea forums. In April with funding from the OAS, an ecocitizen map pilot project constructed for Medellin, Colombia was presented at the World Urban Forum 7 in that city. In October, supported by a grant from the Environment Agency Abu Dhabi (EAD) and in partnership with Mundiapolis University in Casablanca, Morocco, a 5 day workshop and idea forum was held in Casablanca. The workshop, for 50 participants, presented the ecocitizen maps constructed for Cairo, Egypt and Casablanca as well as initiating discussion of smart cities and open data.

Next Steps: A proposal is being developed focusing on training in the use of geospatial data and tools for water management in Colombia.

Links: The proposed program is part of the expanding interest and activity in sustainable urban development occurring worldwide. Listed below are sample activities and projects linked to the proposed program:

- GeoSUMR website: www.ict4dev.ma
- AAG web portal: <http://www.eoe.aag.org>
- [Space Technology and GeoInformation for Sustainable Development](#) Workshop – June 14-17, 2010 in Cairo, Egypt
- http://icma.org/en/Page/653/GIS_Workshop_Materials Workshop – July 16-20, 2006 in Amman, Jordan
- [Analyzing Urban Poverty](#) by Rosario Giusti de Pérez and Ramón A. Pérez, Esri Press

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