Global Slum Mapping

This wiki space provides information on the Expert Group Meeting on Slum Mapping, 21-23 May 2008, at ITC in Enschede, Netherlands, and co-organized by CIESIN and UN-HABITAT. For a report of the workshop, click here.

The focus of the meeting was to document methods for the identification and delineation of slum areas based on high resolution remote sensing and supplementary data sets, e.g. census and related GIS data on infrastructure and services. This allows the formulation of a global strategy to collect sufficient and reliable information at the sub-city level and to link that to information at the city level. In order to do so, discussion focused on the following topics and questions.

- The definition of a slum both statistically and spatially and its implications for data collection and spatial delineation with remote sensing. What additional spatial criteria should be added to the existing definition of a slum and how to accommodate the heterogeneity of slums in the methods?

- Given various levels of use (e.g. by local authorities, national governments and international bodies), what level of data aggregation/disaggregation is needed for monitoring slum development and can multi-level data needs be satisfied both efficiently and effectively?

- How should we balance different methods of data collection, i.e. how should we optimally combine data from sub-city, household surveys with data extracted from high-resolution remote sensing? Both ways of data collection are expensive, the first requiring personal actions on a limited number of households, but leading to detailed information, the second as images are expensive and the required information may be more difficult and less precise - a cost-benefit analysis of alternative methods could be examined providing guidelines for different levels of users.

- What are efficient statistical ways of up-scaling from the sub-city to the city level and to the national levels. So far cluster analysis and regression methods have been applied, whereas a spatial statistical analysis may be promising.

- What are optimal ways of storing and displaying the collected multi-level information using modern geographical information systems, with a proper attention to the quality of information (also assisting data exchange) and ways that the systems can be used for decision support.

- Can we define guidelines and directives for repetition, i.e. how often would it be required to repeat the inventory and methods to maintain consistency over time?

- Is it possible to propose an operational, universal, method of slum identification using geo-spatial technology?

- Is it possible that governments and local authorities can push forward the urban agenda by integrating slums and poverty related issues identified and monitor using geo-spatial technology into the local and national urban development policies?