Objectives:
The goal of Terra Populus (TerraPop) is to lower barriers to conducting interdisciplinary human-environment interactions research by making data with different formats from different scientific domains accessible and easily interoperable. The TerraPop data access system will allow users to easily obtain customized datasets incorporating information from a variety of population and environmental data sources into an integrated package tailored to meet the users’ needs. TerraPop is developing technical and organizational infrastructure to integrate, disseminate, and preserve data describing population and environment on a global scale over the past two centuries, including data on human population characteristics, land use, land cover, and climate change. It will make these data interoperable across time and space, disseminate them to multiple research communities and to the public, and preserve them for future generations.

On-going activities:
TerraPop is assembling a collection of population and environmental data, developing location-based integration methods to make data in different formats interoperable, and building a web-based data access system. TerraPop is collecting data in three structures: (1) microdata, census records for individuals and households, (2) rasters, spatial grids of cells representing values, and (3) area-level data, records for places defined by boundaries. Location-based integration methods enable the construction of customized datasets in any of these three structures that incorporate information derived from data that originated in any combination of structures. For example, contextual variables derived from area-level data can be attached to microdata records, or raster data can be summarized over a set of boundaries and incorporated into an area-level dataset. The data access system allows users to select variables and datasets, choose an output data structure, and specify options related to the transformation of data across structures.

Results:
The TerraPop data access system is currently in limited-access beta testing. A public beta version of the system will be made available by the end of 2013. The beta system currently includes over 800 variables from 13 censuses (covering 6 countries) and 4 environmental datasets. The beta system provides functionality to attach contextual variables derived from raster and area-level data to microdata records, to summarize raster data to area-level boundaries, and to transform area-level data into a raster structure. Future versions of the system will provide functionality for transforming microdata to area-level and raster structures.

URL: www.terrapop.org