LandScan - HR Global Population Data

ComputaMaps (South Africa) has release LandScan, a high resolution population dataset currently available with consistent global coverage. Available national census data are collected and aggregated at varying scales and are of varying vintage, sometimes decades old.

To address the need for a consistent global, high-resolution population database, Oak Ridge National Laboratory (ORNL) has developed a algorithm to augment census data by incorporating factors known to affect settlement geography patterns. Most national censuses count populations by measuring where people sleep (or reside) rather than where they work or travel. LandScan integrates daytime movements and collective travel habits into a single measure to produce a better representation of where people are located during an average day.

Probability coefficients are assigned to each value of each input variable, and a composite probability coefficient is calculated for each LandScan cell, independent of census data, which is then used to apportion shares of actual population counts within any particular area of interest.

Coefficients for all regions are based on the following input data:

- Best available population counts from latest national census data
- Roads, weighted by distance from major roads
- Elevation, weighted by the presence of favourable slope conditions
- Land Cover, weighted by type with exclusions for certain types
- Night-time lights of the World, weighted by frequency gain.

Updated annually, the resulting LandScan dataset provides global coverage of population at 1x1 kilometre resolution. Under license from ORNL, ComputaMaps has made the LandScan population data available for all or part of the world either as a stand-alone database or as an optional layer in our Regional and Urban Planner databases.

LandScan is available in UTM or Geographic projection, WGS84 datum, by individual country or continent, or as a single global coverage in common raster or vector formats.

Source: ComputaMaps