



National Aggregates of Geospatial Data Collection:  
Population, Landscape and Climate Estimates (PLACE)  
**Version II**  
**May 8, 2007**

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This document outlines the basic methodology and datasets used to construct the PLACE II update. Please see the disclaimer and use restrictions at the end of the document, as well as a suggested citation. We appreciate all feedback regarding this dataset, such as: suggestions, discovery of errors, difficulties in using the data, format preferences, etc.

## **Introduction**

The *National Aggregates of Geospatial Data* collection is designed to help make geospatial data accessible to analysts in tabular form, aggregated to the national level. Data were chosen that met the following criteria:

1. They were global in scope (though some omit coverage for polar regions).
2. They were capable of meaningful aggregation at the national level.
3. They were relevant to understanding human-environment interactions.

This is an update to the initial collection that can grow over time as need and feasibility dictates.

## **Data Format**

The data are available in tabular (spreadsheet) format, as a downloadable Excel formatted file from the PLACE web site (<http://sedac.ciesin.columbia.edu/place>).

## **Basic method:**

All data were assigned to a Geographic (WGS84) coordinate system and resampled to match the 2.5 arc-minute grid format, resolution and extent of the GPWv3 Population (POP), Administrative Boundary (ADM) and Land Area (LA) grids. Simple cross-tabular evaluations were performed, overlaying classes within each thematic variable, (Density Zones, Coastal Proximity Zones, Climate Zones, Elevation Zones and Biomes) with country boundaries. This returned layers of the classes for each input grid, by country. Since the comparisons were run at the cell level, population and area values could be queried for each pixel, from the underlying POP (1990 and 2000) and LA layers, summed and reported by population and area, by class, by country.

## **Source Data**

The following input layers were used to calculate PLACE II aggregations. Brief descriptions are given for each dataset, along with the location of more complete documentation, metadata and web addresses for the source datasets. A complete listing of input variables and classification schema employed is found at the end of this document.

### *National Boundaries, Shorelines, Population, Land Area, Population Density Classes*

The suite of Gridded Population of the World (GPW v3) datasets was used. GPWv3 includes global estimates of human population for the years 1990 and 2000, formatted in 2.5 arc-minute grid cells. The products include raw population counts (#'s of persons, in thousands), population density (persons per square km), land area (area square km, net of permanent ice and water), national identifier, national boundaries, and coastlines.

GPWv3 was produced by the Columbia University Center for International Earth Science Information Network (CIESIN) in collaboration with the Centro Internacional de Agricultura Tropical (CIAT).

### *Population*

PLACE II use the GPWv3 UN-adjusted population values from 1990 and 2000. Population totals for each country, as presented in the output table (GPW90POP and GPW00POP), were calculated using a GIS overlay process. Total POP values for all pixels that overlap those for each unique ADM value were summarized, one each of 1990 and 2000 GPW POP layers. Per class percentages were calculated as fractions of this GIS summarized value. Regions where input layers did not contain values (most often true of smaller, island nations), are presented as Missing Data. The sum of all per class percentages, by country, together with the Missing Data values, will equal 100 percent of the GIS calculated POP. While real-world country boundaries changed during the 1990 to 2000 period, for consistency sake, we employed a uniform ADM geography for all analyses; that of the 2000 circa layer.

Because most countries' national statistical offices report census data values that differ from United Nations population estimates, GPWv3 data are made available as either adjusted to the UN estimates or in their unadjusted form. For the UN adjustment, a national-level conversion factor representing the difference between the estimates from each national statistical office and the UN estimate is applied to the population values. Users wishing to utilize unadjusted population values can find the conversion factors used for each country at:

[http://sedac.ciesin.columbia.edu/gpw/spreadsheets/GPW3\\_GRUMP\\_SummaryInformation\\_Oct05prod.xls](http://sedac.ciesin.columbia.edu/gpw/spreadsheets/GPW3_GRUMP_SummaryInformation_Oct05prod.xls) (see Excel page Codebok).

### *Land Area*

The GPWv3 global Land Area (LA) grid was used for calculating the size (square km) and percentage land area, per class, by country for each input layer. The GPW LA grid has been calibrated to more precisely represent the actual per cell area (sq.km), which varies latitudinally. The total LA land area values for pixels matching those for a particular ADM unit were summarized using a GIS overlay processes (presented as GPW90AREA and GPW00AREA, which are identical values). Per class percentages, by class by country, were calculated as fractions of this summed national value. Areas where input layers did not contain spatial information consistent with those region grown to match GPW V3 extents are presented as Missing Data. The total of per class values, together with Missing Values, will equal 100 percent of the GIS calculated area. Large inland water bodies and permanent ice have been removed from the analysis. All region growing processes employed either a focal majority function (categorical data e.g. Biomes) or an averaging function (continuous data, e.g. Elevation).

### *Coastal Proximity Zones*

Coastal proximity zones (regions within 100 or 200km of a coast) were created from the GPWv3 shoreline vector layer. Global coastline features were subset into seven continental coverages (North America, South America, Europe, Africa, Asia, Oceania and Australia), with each projected into a continent-specific Lambert Conformal Polyconic projection. Buffers (100km and 200km) for each of the seven continental line coverages were created from the shorelines, and then clipped to include just the inland portions of the buffer zones. The resulting data layers were projected back into Geographic space and merged, one each for 100km and 200km global coastal zones.

### *Population Density Zones*

Population Density layers, for 1990 and 2000 were created by dividing the 1990 and 2000 UN-adjusted population (POP) count grids by the land area (LA) grid. The resulting grid layers, one each for 1990 and 2000, were then aggregated to match the 12 population density classes described below.

Source Information: Center for International Earth Science Information Network (CIESIN), Columbia University; and Centro Internacional de Agricultura Tropical (CIAT). 2005. Gridded Population of the World Version 3 (GPWv3): Population Grids. Palisades, NY: Socioeconomic Data and Applications Center (SEDAC), Columbia University. Available at <http://sedac.ciesin.columbia.edu/gpw>.

### *Elevation Zones*

Digital elevation data were obtained as a 1-kilometer resolution elevation/bathymetry raster product from ISciences, L.L.C. (<http://www.isciences.com/>). Elevation zones were created by aggregating ranges of land elevation values into 12 thematic elevation classes, as described below. The 2004 ISciences data were resampled from their native 30 arc-second resolution to match GPW V3's population and land area 2.5 arc-minute spatial footprint. ISciences' TerraViva! SRTM elevation product combines NASA's Shuttle Radar Topographic Mission (SRTM30) digital elevation data with bathymetric values to produce a seamless, globally consistent land elevation and marine depth layer. Gaps and voids in the original SRTM (v1) data were supplemented by elevation data from the NOAA GLOBE project, (<http://www.ngdc.noaa.gov/mgg/topo/globe.html>) to provide a high-quality global coverage of all land surface areas.

Source Information: ISciences, L.L.C. 300 N. Fifth Ave. Suite 120., Ann Arbor, MI 48104 <http://www.isciences.com/>

### *Climate Zones*

The Köppen Climate Classification map of the world, from the U.N. Food and Agriculture Organization (FAO), Sustainable Development Agrometeorology Group (February 2006), was selected to represent global climatological regions. The

classification system is based on annual and monthly averages of temperature and precipitation ranges. Map data were received by CIESIN as .5 degree grids, in geographic projection and resampled to match the extent and resolution of GPWv3 (2.5 arc-minute). The 46 climate zones fall within 5 broad classes, based on general annual distributions of temperature and rainfall. Tropical systems are coded as “A”, Dry systems as “B”, Temperate systems “C”, Cold systems as “D” and Polar systems as “E”. Each of these 5 main classes contains combinations of two levels of subclass identifiers, based on seasonality, precipitation and temperature patterns. While map outputs depict generalized climate patterns at the superclass level, the full array of 46 detailed classes were used for the analysis and are presented as such in the tables. For more information see FAO’s Sustainable Development (SD) Dimensions web site.

Source Information: FAO's Sustainable Development Department (SD) – 2006. Global Climate Maps. Köppen Climate Classification Map.  
<http://www.fao.org/sd/Eldirect/climate/EIsp0002.htm>

### *Biomes*

Global Biome data were obtained from the World Wildlife Fund (WWF) Terrestrial Ecoregions of the World dataset, in February, 2006. The data depict global terrestrial vegetation biodiversity patterns for the world’s 825 ecoregions and 14 biomes. The data are distributed in vector format, created to be used at the scale of 1:1 million. CIESIN converted the data to raster grid format, and clipped and resampled to match the 2.5 arc-minute format, resolution and extent of GPWv3. Biome classes 99 (Rock and Ice ) and 98 (Lake) from the WWF data were recoded to match the dominant surrounding Biome class, to avoid “losing” population numbers for areas where Lake and Rock\Ice class edges did not correspond precisely to GPWv3 edges.

Source Information: <http://www.worldwildlife.org/science/ecoregions/terrestrial.cfm>.  
See also Olson, D.M., E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D'Amico, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, J.F. Lamoreux, T.H. Ricketts, I. Itoua, W.W. Wettengel, Y. Kura, P. Hedao, and K. Kassem. 2001. Terrestrial ecoregions of the world: A new map of life on Earth. *BioScience* 51(11): 933-938.

## **Updates, Geospatial Processing & Known Errors**

### *All Data Rasterized*

PLACE II relies on raster-based data for all calculations, whereas PLACE I used a combination of raster and vector inputs. PLACE II eliminates some of the inherent spatial error involved when analyzing raster and vector data (Fig. 1) within a common geospatial workspace by converting and processing all data to a common global grid format, resolution and coordinate system. While this process actually adds a measure of error (since raster depictions at 2.5 arc-minutes cannot represent small and/or linear

features (islands or shorelines) quite as precisely and accurately as vector data), at the same time it standardizes the distribution of the cross-tabulated error, since all variables will have very nearly the same number of input units (pixels) and their placement and cross-tabular analyses, will be uniformly assessed.

In addition, all datasets were adjusted to match the raster footprint and extent of the GPWv3 National Boundary land area as well as the shorelines, internal waterbodies and islands (Fig. 2). Areas extending outside of GPW V3 shorelines (mostly along shorelines) were clipped; voids, relative to inland portions of GPW V3 shorelines, were resampled or “region grown”, as previously described. The resulting “edge-matched” datasets provide a spatially consistent and reproducible product.

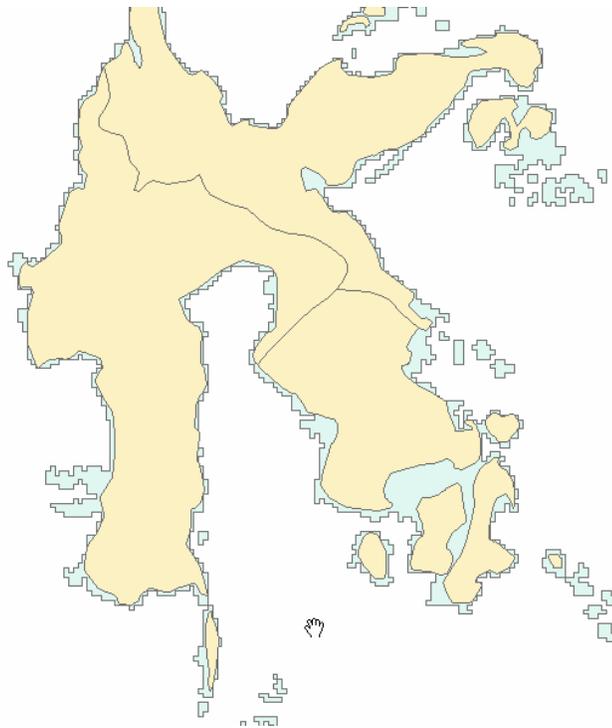


Fig. 1. Vector and Raster data examples

Note however, the resampling methods utilized did not estimate values for spatially discontinuous regions, such as small islands. Therefore, regions for which input layers do not contain data and GPW V3 sets do are reported as Missing Data.

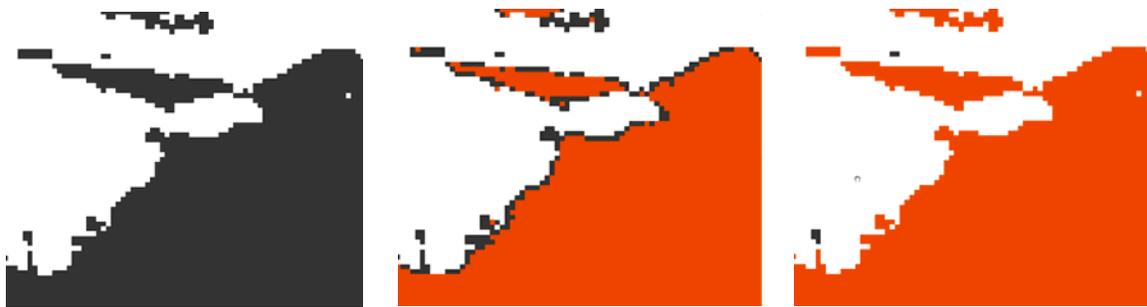


Fig. 2. GPW V3 extent

Biomes over GPW V3

Biomes resampled to match GPW V3

### *Coastal Zones*

The continental scale Lambert Conformal Polyconic projections used here produced coastal zone distance errors in the range of 0-15% for latitudes of 0 (equator) to 70 degrees (north and south). This projection produces greater distance errors in the coastal zone buffers (up to 27%) for higher and lower latitudes (80 degrees, north and south), though population counts for these zones tend to be quite low.

### **Error Measurement**

One quantitative check of the data presented is the difference between the GIS calculated total, (notated in the document as “implicit total area” and “implicit total population”) and the value reported by our reference sources as the actual land area or population. Both values are presented in the data table.

### **Acknowledgment**

Funding for this dataset was provided under the U.S. National Aeronautics and Space Administration (NASA) Socioeconomic Data and Applications Center (SEDAC) contract NAS5-98162 to the Center for International Earth Science Information Network (CIESIN) of Columbia University. We wish to acknowledge Dr. Peter Dana, University of Texas at Austin, for his kind help and suggestions with geodetic considerations. We also wish to thank the hard, dedicated work of the many CIESIN staff that made completion of this update possible.

**National Aggregates of Geospatial Data: Population, Landscape and Climate Estimates  
(PLACE II)  
Alpha Release  
May, 2007**

**Codebooks – Area & Population**

VARIABLE NAME	VARIABLE DESCRIPTION
ISO3	International Standards Organization unique three-letter country or area code.
CONT	continent name.
CNTRYAR	country or area name.
ARDN1	land area (sq. km.), where the population density is: 0 person per sq. km.*
ARDN2	land area (sq. km.), where the population density is: 0-2 persons per sq. km.*
ARDN3	land area (sq. km.), where the population density is: 2-5 persons per sq. km.*
ARDN4	land area (sq. km.), where the population density is: 5-10 persons per sq. km.*
ARDN5	land area (sq. km.), where the population density is: 10-15 persons per sq. km.*
ARDN6	land area (sq. km.), where the population density is: 15-50 persons per sq. km.*
ARDN7	land area (sq. km.), where the population density is: 50-100 persons per sq. km.*
ARDN8	land area (sq. km.), where the population density is: 100-500 persons per sq. km.*
ARDN9	land area (sq. km.), where the population density is: 500-1000 persons per sq. km.*
ARDN10	land area (sq. km.), where the population density is: 1000-10000 persons per sq. km.*
ARDN11	land area (sq. km.), where the population density is: 10000-50000 persons per sq. km.*
ARDN12	land area (sq. km.), where the population density is: >50000 persons per sq. km.*
ARDN00	land area (sq. km.), where the population density data are missing.*
PARDN1	percent land area, where the population density is: 0 persons per sq. km.*
PARDN2	percent land area, where the population density is: 0-2 persons per sq. km.*
PARDN3	percent land area, where the population density is: 2-5 persons per sq. km.*
PARDN4	percent land area, where the population density is: 5-10 persons per sq. km.*
PARDN5	percent land area, where the population density is: 10-15 persons per sq. km.*
PARDN6	percent land area, where the population density is: 15-50 persons per sq. km.*
PARDN7	percent land area, where the population density is: 50-100 persons per sq. km.*
PARDN8	percent land area, where the population density is: 100-500 persons per sq. km.*
PARDN9	percent land area, where the population density is: 500-1000 persons per sq. km.*
PARDN10	percent land area, where the population density is: 1000-10000 persons per sq. km.*
PARDN11	percent land area, where the population density is: 10000-50000 persons per sq. km.*
PARDN12	percent land area, where the population density is: >50000 persons per sq. km.*
PARDN00	percent land area, where the population density data are missing.*
AREL1	land area (sq. km.), where the elevation is: <5 meters. *
AREL2	land area (sq. km.), where the elevation is: 5-10 meters. *
AREL3	land area (sq. km.), where the elevation is: 10-25 meters. *
AREL4	land area (sq. km.), where the elevation is: 25-50 meters. *
AREL5	land area (sq. km.), where the elevation is: 50-100 meters. *
AREL6	land area (sq. km.), where the elevation is: 100-200 meters. *
AREL7	land area (sq. km.), where the elevation is: 200-400 meters. *
AREL8	land area (sq. km.), where the elevation is: 400-800 meters. *
AREL9	land area (sq. km.), where the elevation is: 800-1500 meters. *
AREL10	land area (sq. km.), where the elevation is: 1500-3000 meters. *
AREL11	land area (sq. km.), where the elevation is: 3000-5000 meters. *
AREL12	land area (sq. km.), where the elevation is: >5000 meters. *
AREL00	land area (sq. km.), where the elevation data are missing. *
PAREL1	percent land area, where the elevation is: <5 meters. *
PAREL2	percent land area, where the elevation is: 5-10 meters. *
PAREL3	percent land area, where the elevation is: 10-25 meters. *
PAREL4	percent land area, where the elevation is: 25-50 meters. *

VARIABLE NAME	VARIABLE DESCRIPTION
PAREL5	percent land area, where the elevation is: 50-100 meters. *
PAREL6	percent land area, where the elevation is: 100-200 meters. *
PAREL7	percent land area, where the elevation is: 200-400 meters. *
PAREL8	percent land area, where the elevation is: 400-800 meters. *
PAREL9	percent land area, where the elevation is: 800-1500 meters. *
PAREL10	percent land area, where the elevation is: 1500-3000 meters. *
PAREL11	percent land area, where the elevation is: 3000-5000 meters. *
PAREL12	percent land area, where the elevation is: >5000 meters. *
PAREL00	percent land area, where the elevation data are missing. *
ARCZ1	land area (sq. km.), in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month <b>Af</b>
ARCZ2	land area (sq. km.), in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month, annual range temperature<5°C <b>Afi</b>
ARCZ3	land area (sq. km.), in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year <b>Am</b>
ARCZ4	land area (sq. km.), in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year, Annual range temperature< 5°C <b>Ami</b>
ARCZ5	land area (sq. km.), in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation <60mm <b>Aw</b>
ARCZ6	land area (sq. km.), in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation <60mm. Annual range of temperature< 5 °C <b>Aw</b>
ARCZ7	land area (sq. km.), in climatic zone: Polar, no month with temperature > 10°C <b>EF</b>
ARCZ8	land area (sq. km.), in climatic zone: Polar, no month with temperature > 10°C, average temperature of coldest month < -38°C. <b>EFd</b>
ARCZ9	land area (sq. km.), in climatic zone: Polar, tundra, avg temperatureof warmest month > 0°C <b>ET</b>
ARCZ10	land area (sq. km.), in climatic zone: Polar, tundra, avg temperatureof warmest month > 0°C. avg temperatureof coldest month < -38°C. <b>ETd</b>
ARCZ11	land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. <b>C</b>
ARCZ12	land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Hot summer, Avg temperatureof month >22 °C. <b>Ca</b>
ARCZ13	land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool summer, Avg temperatureof month <22 °C. <b>Cb</b>
ARCZ14	land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool short Summer, less than 4 months > 10 °C. <b>Cc</b>
ARCZ15	land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs <b>Cf</b>
ARCZ16	land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Hot Summer, Avg. temp. warmest month > 22 °C. <b>Cfa</b>
ARCZ17	land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool Summer, Avg. temp. warmest month < 22 °C. <b>Cfb</b>
ARCZ18	land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool short Summer, less than 4 months > 10 °C. <b>Cfc</b>
ARCZ19	land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. <b>Cw</b>

VARIABLE NAME	VARIABLE DESCRIPTION
ARCZ20	land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Hot Summer, avg. temperature warmest month > 22°C. <b>Cwa</b>
ARCZ21	land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool Summer, avg. temperature warmest month < 22 °C <b>Cwb</b>
ARCZ22	land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool short Summer, less than 4 months > 10°C. <b>Cwc</b>
ARCZ23	land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. <b>Cs</b>
ARCZ24	land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Hot Summer, Avg. temperature warmest month > 22 °C. <b>Csa</b>
ARCZ25	land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool Summer, avg. temperature warmest month < 22 °C. <b>Csb</b>
ARCZ26	land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool, short Summer, less than 4 months > 10 °C. <b>Csc</b>
ARCZ27	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. hot summer, avg. temperature of warmest month > 22°C <b>Da</b>
ARCZ28	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool summer, avg temperature warmest month < 22°C <b>Db</b>
ARCZ29	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool, short summer less than four months > 10°C <b>Dc</b>
ARCZ30	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Avg temperature of coldest month < -38°C <b>Dd</b>
ARCZ31	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month\driest month less than for Cw and Cs <b>Dfa</b>
ARCZ32	land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month\driest month less than for Cw and Cs. Cool summer, avg temperature of warm <b>Dfb</b>
ARCZ33	land area (sq. km.), in climatic zone: Cold, Avg temp of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month\driest month less than for Cw and Cs. Cool, short summer less than four months > 10°C <b>Dfc</b>
ARCZ34	land area (sq. km.), in climatic zone: Cold. Avg temp of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precip in wettest month of summer as in driest month of winter. hot summer, avg temp of warmest month > 22°C <b>Dwa</b>
ARCZ35	land area (sq. km.), in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool summer, avg te <b>Dwb</b>
ARCZ36	land area (sq. km.), in climatic zone: Cold. Avg temperature of warmest month >

VARIABLE NAME	VARIABLE DESCRIPTION
	10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool, short summer <b>Dwc</b>
ARCZ37	land area (sq. km.), in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. avg temperature of coldest <b>Dwd</b>
ARCZ38	land area (sq. km.), in climatic zone: Dry, Steppe Vegetation Type <b>BS</b>
ARCZ39	land area (sq. km.), in climatic zone: Dry, Steppe Vegetation Type, Subtropical desert, avg. temperature > 18 °C <b>BSh</b>
ARCZ40	land area (sq. km.), in climatic zone: Dry, Steppe Vegetation Type, cool dry climate, middle latitude deserts <b>BSk</b>
ARCZ41	land area (sq. km.), in climatic zone: Dry, Steppe Vegetation Type, temp. of warmest month < 18 °C <b>BSk'</b>
ARCZ42	land area (sq. km.), in climatic zone: Desert Vegetation Type <b>BW</b>
ARCZ43	land area (sq. km.), in climatic zone: Desert Vegetation Type, Subtropical desert, avg. temperature > 18 °C. <b>BWh</b>
ARCZ44	land area (sq. km.), in climatic zone: Desert Vegetation Type, cool dry climate of middle latitude deserts <b>BWk</b>
ARCZ45	land area (sq. km.), in climatic zone: Desert Vegetation Type, temperature of warmest month < 18 °C. <b>BWk'</b>
ARCZ00	land area (sq. km.), where climatic zone data are missing.
PARCZ1	percent land area (sq. km.), in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month <b>Af</b>
PARCZ2	percent land area (sq. km.), in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month, annual range temperature < 5°C <b>Afi</b>
PARCZ3	percent land area (sq. km.), in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year <b>Am</b>
PARCZ4	percent land area (sq. km.), in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year, Annual range temperature < 5°C <b>Ami</b>
PARCZ5	percent land area (sq. km.), in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation < 60mm <b>Aw</b>
PARCZ6	percent land area (sq. km.), in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation < 60mm. Annual range of temperature < 5 °C <b>Awi</b>
PARCZ7	percent land area (sq. km.), in climatic zone: Polar, no month with temperature > 10°C <b>EF</b>
PARCZ8	percent land area (sq. km.), in climatic zone: Polar, no month with temperature > 10°C, average temperature of coldest month < -38°C. <b>EFd</b>
PARCZ9	percent land area (sq. km.), in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C <b>ET</b>
PARCZ10	percent land area (sq. km.), in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C. avg temperature of coldest month < -38°C. <b>ETd</b>
PARCZ11	percent land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month > 10 °C. <b>C</b>
PARCZ12	percent land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month > 10 °C. Hot summer, Avg temperature of month > 22 °C. <b>Ca</b>
PARCZ13	percent land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month > 10 °C. Cool summer, Avg temperature of month < 22 °C. <b>Cb</b>
PARCZ14	percent land area (sq. km.), in climatic zone: Temperate, avg. temp. of coldest

VARIABLE NAME	VARIABLE DESCRIPTION
	month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool short Summer, less than 4 months > 10 °C. <b>Cc</b>
PARCZ15	percent land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs <b>Cf</b>
PARCZ16	percent land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Hot Summer, Avg. temp. warmest month > 22 °C. <b>Cfa</b>
PARCZ17	percent land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool Summer, Avg. temp. warmest month < 22 °C. <b>Cfb</b>
PARCZ18	percent land area (sq. km.), in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool short Summer, less than 4 months > 10 °C. <b>Cfc</b>
PARCZ19	percent land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. <b>Cw</b>
PARCZ20	percent land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Hot Summer, avg. temperature warmest month > 22°C. <b>Cwa</b>
PARCZ21	percent land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool Summer, avg. temperature warmest month < 22 °C <b>Cwb</b>
PARCZ22	percent land area (sq. km.), in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool short Summer, less than 4 months > 10°C. <b>Cwc</b>
PARCZ23	percent land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. <b>Cs</b>
PARCZ24	percent land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Hot Summer, Avg. temperature warmest month > 22 °C. <b>Csa</b>
PARCZ25	percent land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool Summer, avg. temperature warmest month < 22 °C. <b>Csb</b>
PARCZ26	percent land area (sq. km.), in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool, short Summer, less than 4 months > 10 °C. <b>Csc</b>
PARCZ27	percent land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. hot summer, avg. temperature of warmest month > 22°C <b>Da</b>
PARCZ28	percent land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool summer, avg temperature warmest month < 22°C <b>Db</b>
PARCZ29	percent land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool, short summer less than four months > 10°C <b>Dc</b>
PARCZ30	percent land area (sq. km.), in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Avg temperature of coldest month < -



VARIABLE NAME	VARIABLE DESCRIPTION
<b>ISO3</b>	International Standards Organization unique three-letter country or area code.
<b>CONT</b>	continent name.
<b>CNTRYPOP</b>	country or area name.
<b>POPDN1</b>	number of persons living in area(s) where the population density is: 0 person per sq. km.*
<b>POPDN2</b>	number of persons living in area(s) where the population density is: 0-2 persons per sq. km.*
<b>POPDN3</b>	number of persons living in area(s) where the population density is: 2-5 persons per sq. km.*
<b>POPDN4</b>	number of persons living in area(s) where the population density is: 5-10 persons per sq. km.*
<b>POPDN5</b>	number of persons living in area(s) where the population density is: 10-15 persons per sq. km.*
<b>POPDN6</b>	number of persons living in area(s) where the population density is: 15-50 persons per sq. km.*
<b>POPDN7</b>	number of persons living in area(s) where the population density is: 50-100 persons per sq. km.*
<b>POPDN8</b>	number of persons living in area(s) where the population density is: 100-500 persons per sq. km.*
<b>POPDN9</b>	number of persons living in area(s) where the population density is: 500-1000 persons per sq. km.*
<b>POPDN10</b>	number of persons living in area(s) where the population density is: 1000-10000 persons per sq. km.*
<b>POPDN11</b>	number of persons living in area(s) where the population density is: 10000-50000 persons per sq. km.*
<b>POPDN12</b>	number of persons living in area(s) where the population density is: >50000 persons per sq. km.*
<b>POPDN00</b>	number of persons living in area(s) where the population density data are missing.*
<b>PPOPDN1</b>	percent population, in area(s) where the population density is: 0 persons per sq. km.*
<b>PPOPDN2</b>	percent population, in area(s) where the population density is: 0-2 persons per sq. km.*
<b>PPOPDN3</b>	percent population, in area(s) where the population density is: 2-5 persons per sq. km.*
<b>PPOPDN4</b>	percent population, in area(s) where the population density is: 5-10 persons per sq. km.*
<b>PPOPDN5</b>	percent population, in area(s) where the population density is: 10-15 persons per sq. km.*
<b>PPOPDN6</b>	percent population, in area(s) where the population density is: 15-50 persons per sq. km.*
<b>PPOPDN7</b>	percent population, in area(s) where the population density is: 50-100 persons per sq. km.*
<b>PPOPDN8</b>	percent population, in area(s) where the population density is: 100-500 persons per sq. km.*
<b>PPOPDN9</b>	percent population, in area(s) where the population density is: 500-1000 persons per sq. km.*
<b>PPOPDN10</b>	percent population, in area(s) where the population density is: 1000-10000 persons per sq. km.*
<b>PPOPDN11</b>	percent population, in area(s) where the population density is: 10000-50000 persons per sq. km.*
<b>PPOPDN12</b>	percent population, in area(s) where the population density is: >50000 persons per sq. km.*
<b>PPOPDN00</b>	percent population, in area(s) where the population density data are missing.*
<b>POPEL1</b>	population living in area(s) where the elevation is: <5 meters.*
<b>POPEL2</b>	population living in area(s) where the elevation is: 5-10 meters.*
<b>POPEL3</b>	population living in area(s) where the elevation is: 10-25 meters.*
<b>POPEL4</b>	population living in area(s) where the elevation is: 25-50 meters.*
<b>POPEL5</b>	population living in area(s) where the elevation is: 50-100 meters.*
<b>POPEL6</b>	population living in area(s) where the elevation is: 100-200 meters.*
<b>POPEL7</b>	population living in area(s) where the elevation is: 200-400 meters.*
<b>POPEL8</b>	population living in area(s) where the elevation is: 400-800 meters.*
<b>POPEL9</b>	population living in area(s) where the elevation is: 800-1500 meters.*

VARIABLE NAME	VARIABLE DESCRIPTION
POPEL10	population living in area(s) where the elevation is: 1500-3000 meters. *
POPEL11	population living in area(s) where the elevation is: 3000-5000 meters. *
POPEL12	population living in area(s) where the elevation is: >5000 meters. *
POPEL00	population living in area(s) where the elevation data are missing. *
PPOPEL1	percent population, in area(s) where the elevation is: <5 meters. *
PPOPEL2	percent population, in area(s) where the elevation is: 5-10 meters. *
PPOPEL3	percent population, in area(s) where the elevation is: 10-25 meters. *
PPOPEL4	percent population, in area(s) where the elevation is: 25-50 meters. *
PPOPEL5	percent population, in area(s) where the elevation is: 50-100 meters. *
PPOPEL6	percent population, in area(s) where the elevation is: 100-200 meters. *
PPOPEL7	percent population, in area(s) where the elevation is: 200-400 meters. *
PPOPEL8	percent population, in area(s) where the elevation is: 400-800 meters. *
PPOPEL9	percent population, in area(s) where the elevation is: 800-1500 meters. *
PPOPEL10	percent population, in area(s) where the elevation is: 1500-3000 meters. *
PPOPEL11	percent population, in area(s) where the elevation is: 3000-5000 meters. *
PPOPEL12	percent population, in area(s) where the elevation is: >5000 meters. *
PPOPEL00	percent population, in area(s) where the elevation data are missing. *
POPCZ1	population in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month <b>Af</b>
POPCZ2	population in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month, annual range temperature<5°C <b>Afi</b>
POPCZ3	population in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year <b>Am</b>
POPCZ4	population in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year, Annual range temperature< 5°C <b>Ami</b>
POPCZ5	population in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation <60mm <b>Aw</b>
POPCZ6	population in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation <60mm. Annual range of temperature< 5 °C <b>Aw</b>
POPCZ7	population in climatic zone: Polar, no month with temperature > 10°C <b>EF</b>
POPCZ8	population in climatic zone: Polar, no month with temperature > 10°C, average temperature of coldest month < -38°C. <b>EFd</b>
POPCZ9	population in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C <b>ET</b>
POPCZ10	population in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C. avg temperature of coldest month < -38°C. <b>ETd</b>
POPCZ11	population in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. <b>C</b>
POPCZ12	population in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Hot summer, Avg temperature of month >22 °C. <b>Ca</b>
POPCZ13	population in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool summer, Avg temperature of month <22 °C. <b>Cb</b>
POPCZ14	population in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool short Summer, less than 4 months > 10 °C. <b>Cc</b>
POPCZ15	population in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest/driest months < than for Cw and Cs <b>Cf</b>
POPCZ16	population in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest/driest months < than for Cw and Cs. Hot Summer, Avg. temp. warmest month > 22 °C. <b>Cfa</b>
POPCZ17	population in climatic zone: Temperate, at least 30mm precipitation in driest

VARIABLE NAME	VARIABLE DESCRIPTION
	month, difference between wettest/driest months < than for Cw and Cs. Cool Summer, Avg. temp. warmest month < 22 °C. <b>Cfb</b>
POPCZ18	population in climatic zone: Temperage, at least 30mm precipitation in driest month, difference between wettest/driest months < than for Cw and Cs. Cool short Summer, less than 4 months > 10 °C. <b>Cfc</b>
POPCZ19	population in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. <b>Cw</b>
POPCZ20	population in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Hot Summer, avg. temperature warmest month > 22°C. <b>Cwa</b>
POPCZ21	population in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool Summer, avg. temperature warmest month < 22 °C <b>Cwb</b>
POPCZ22	population in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool short Summer, less than 4 months > 10°C. <b>Cwc</b>
POPCZ23	population in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. <b>Cs</b>
POPCZ24	population in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Hot Summer, Avg. temperature warmest month > 22 °C. <b>Csa</b>
POPCZ25	population in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool Summer, avg. temperature warmest month < 22 °C. <b>Csb</b>
POPCZ26	population in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool, short Summer, less than 4 months > 10 °C. <b>Csc</b>
POPCZ27	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. hot summer, avg. temperature of warmest month > 22°C <b>Da</b>
POPCZ28	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool summer, avg temperature warmest month < 22°C <b>Db</b>
POPCZ29	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool, short summer less than four months > 10°C <b>Dc</b>
POPCZ30	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Avg temperature of coldest month < -38°C <b>Dd</b>
POPCZ31	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month/driest month less than for Cw and Cs <b>Dfa</b>
POPCZ32	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month/driest month less than for Cw and Cs. Cool summer, avg temperature of warmest month < 22°C <b>Dfb</b>
POPCZ33	population in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month/driest month less than for Cw and Cs. Cool, short summer less than four months > 10°C <b>Dfc</b>
POPCZ34	population in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. hot summer, avg tem <b>Dwa</b>
POPCZ35	population in climatic zone: Cold. Avg temperature of warmest month > 10°C and

VARIABLE NAME	VARIABLE DESCRIPTION
	that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. hot summer, avg temperature of warmest month > 22°C <b>Dwb</b>
POPCZ36	population in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool summer, avg temperature of warmest month < 22°C <b>Dwc</b>
POPCZ37	population in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool, short summer less than four months > 10°C <b>Dwd</b>
POPCZ38	population in climatic zone: Dry, Steppe Vegetation Type <b>BS</b>
POPCZ39	population in climatic zone: Dry, Steppe Vegetation Type, Subtropical desert, avg. temperature > 18 °C <b>BSh</b>
POPCZ40	population in climatic zone: Dry, Steppe Vegetation Type, cool dry climate, middle latitude deserts <b>BSk</b>
POPCZ41	population in climatic zone: Dry, Steppe Vegetation Type, temp. of warmest month < 18 °C <b>BSk'</b>
POPCZ42	population in climatic zone: Desert Vegetation Type <b>BW</b>
POPCZ43	population in climatic zone: Desert Vegetation Type, Subtropical desert, avg. temperature > 18 °C. <b>BWh</b>
POPCZ44	population in climatic zone: Desert Vegetation Type, cool dry climate of middle latitude deserts <b>BWk</b>
POPCZ45	population in climatic zone: Desert Vegetation Type, temperature of warmest month < 18 °C. <b>BWk'</b>
POPCZ00	population where climatic zone data are missing.
PPOPCZ1	percent population, in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month <b>Af</b>
PPOPCZ2	percent population, in climatic zone: Tropical Rain Forest, no dry season, >60mm rain in driest month, annual range temperature < 5°C <b>Afi</b>
PPOPCZ3	percent population, in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year <b>Am</b>
PPOPCZ4	percent population, in climatic zone: Tropical, Monsoon Type, Short dry season, ground wet all year, Annual range temperature < 5°C <b>Ami</b>
PPOPCZ5	percent population, in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation < 60mm <b>Aw</b>
PPOPCZ6	percent population, in climatic zone: Tropical, Distinct Dry Season. One Month with precipitation < 60mm. Annual range of temperature < 5 °C <b>AwI</b>
PPOPCZ7	percent population, in climatic zone: Polar, no month with temperature > 10°C <b>EF</b>
PPOPCZ8	percent population, in climatic zone: Polar, no month with temperature > 10°C, average temperature of coldest month < -38°C. <b>EFd</b>
PPOPCZ9	percent population, in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C <b>ET</b>
PPOPCZ10	percent population, in climatic zone: Polar, tundra, avg temperature of warmest month > 0°C. avg temperature of coldest month < -38°C. <b>ETd</b>
PPOPCZ11	percent population, in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month > 10 °C. <b>C</b>
PPOPCZ12	percent population, in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month > 10 °C. Hot summer, Avg temperature of month > 22 °C. <b>Ca</b>
PPOPCZ13	percent population, in climatic zone: Temperate, avg. temp. of coldest month < 18

VARIABLE NAME	VARIABLE DESCRIPTION
	°C and > -3 °C., avg. temp. warmest month >10 °C. Cool summer, Avg temperature of month <22 °C. <b>Cb</b>
PPOPCZ14	percent population, in climatic zone: Temperate, avg. temp. of coldest month < 18 °C and > -3 °C., avg. temp. warmest month >10 °C. Cool short Summer, less than 4 months > 10 °C. <b>Cc</b>
PPOPCZ15	percent population, in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs <b>Cf</b>
PPOPCZ16	percent population, in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Hot Summer, Avg. temp. warmest month > 22 °C. <b>Cfa</b>
PPOPCZ17	percent population, in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool Summer, Avg. temp. warmest month < 22 °C. <b>Cfb</b>
PPOPCZ18	percent population, in climatic zone: Temperate, at least 30mm precipitation in driest month, difference between wettest\driest months < than for Cw and Cs. Cool short Summer, less than 4 months > 10 °C. <b>Cfc</b>
PPOPCZ19	percent population, in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. <b>Cw</b>
PPOPCZ20	percent population, in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Hot Summer, avg. temperature of warmest month > 22°C. <b>Cwa</b>
PPOPCZ21	percent population, in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool Summer, avg. temperature of warmest month < 22 °C <b>Cwb</b>
PPOPCZ22	percent population, in climatic zone: Temperate, Winter dry season. At least 10X as much precipitation in wettest month Summer as driest month Winter. Cool short Summer, less than 4 months > 10°C. <b>Cwc</b>
PPOPCZ23	percent population, in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. <b>Cs</b>
PPOPCZ24	percent population, in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Hot Summer, Avg. temperature warmest month > 22 °C. <b>Csa</b>
PPOPCZ25	percent population, in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool Summer, avg. temperature warmest month < 22 °C. <b>Csb</b>
PPOPCZ26	percent population, in climatic zone: Temperate, Summer dry season. At least 3X as much rain in wettest month of Winter as in driest month Summer. Summer < 30mm precipitation. Cool, short Summer, less than 4 months > 10 °C. <b>Csc</b>
PPOPCZ27	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. hot summer, avg. temperature of warmest month > 22°C <b>Da</b>
PPOPCZ28	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool summer, avg temperature warmest month < 22°C <b>Db</b>
PPOPCZ29	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Cool, short summer less than four months > 10°C <b>Dc</b>
PPOPCZ30	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. Avg temperature of coldest month < -38°C <b>Dd</b>
PPOPCZ31	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference

VARIABLE NAME	VARIABLE DESCRIPTION
	between wettest month\driest month less than for Cw and Cs <b>Dfa</b>
PPOPCZ32	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month\driest month less than for Cw and Cs. Cool summer, avg temperature of warmest month < 22°C <b>Dfb</b>
PPOPCZ33	percent population, in climatic zone: Cold, Avg temperature of warmest month > 10°C and coldest month < -3°C. at least 30 mm rain in driest month, difference between wettest month\driest month less than for Cw and Cs. Cool, short summer less than four months > 10°C <b>Dfc</b>
PPOPCZ34	percent population, in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. hot summer, avg temperature of warmest month > 22°C <b>Dwa</b>
PPOPCZ35	percent population, in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool summer, avg temperature of warmest month < 22°C <b>Dwb</b>
PPOPCZ36	percent population, in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. cool, short summer less than four months > 10°C <b>Dwc</b>
PPOPCZ37	percent population, in climatic zone: Cold. Avg temperature of warmest month > 10°C and that of coldest month < -3°C. winter dry season - at least 10 times as much precipitation in wettest month of summer as in driest month of winter. avg temperature of coldest month < -38°C <b>Dwd</b>
PPOPCZ38	percent population, in climatic zone: Dry, Steppe Vegetation Type <b>BS</b>
PPOPCZ39	percent population, in climatic zone: Dry, Steppe Vegetation Type, Subtropical desert, avg. temperature > 18 °C <b>BSh</b>
PPOPCZ40	percent population, in climatic zone: Dry, Steppe Vegetation Type, cool dry climate, middle latitude deserts <b>BSk</b>
PPOPCZ41	percent population, in climatic zone: Dry, Steppe Vegetation Type, temp. of warmest month < 18 °C <b>BSk'</b>
PPOPCZ42	percent population, in climatic zone: Desert Vegetation Type <b>BW</b>
PPOPCZ43	percent population, in climatic zone: Desert Vegetation Type, Subtropical desert, avg. temperature > 18 °C. <b>BWh</b>
PPOPCZ44	percent population, in climatic zone: Desert Vegetation Type, cool dry climate of middle latitude deserts <b>BWk</b>
PPOPCZ45	percent population, in climatic zone: Desert Vegetation Type, temperature of warmest month < 18 °C. <b>BWk'</b>
PPOPCZ00	percent population, where climatic zone data are missing.
POP CP1	population, within 100 km of the coast.
POP CP2	population, within 200 km of the coast.
PPOPCP1	percent population, within 100 km of the coast.
PPOPCP2	percent population, within 200 km of the coast.
POPBI1	population in the biome class of: tropical & subtropical moist broadleaf forests.
POPBI2	population in the biome class of: tropical & subtropical dry broadleaf forests.
POPBI3	population in the biome class of: tropical & subtropical coniferous forests.
POPBI4	population in the biome class of: temperate broadleaf & mixed forests.
POPBI5	population in the biome class of: temperate conifer forests.
POPBI6	population in the biome class of: boreal forests/taiga.
POPBI7	population in the biome class of: tropical & subtropical grasslands, savannas & shrublands.
POPBI8	population in the biome class of: temperate grasslands, savannas & shrublands.
POPBI9	population in the biome class of: flooded grasslands & savannas.

VARIABLE NAME	VARIABLE DESCRIPTION
POPBI10	population in the biome class of: montane grasslands & shrublands.
POPBI11	population in the biome class of: tundra.
POPBI12	population in the biome class of: Mediterranean forests, woodlands & scrub.
POPBI13	population in the biome class of: deserts & xeric shrublands.
POPBI14	population in the biome class of: mangroves.
POPBI00	population where the biome data are missing.
PPOPBI1	percent population, in the biome class of: tropical & subtropical moist broadleaf forests.
PPOPBI2	percent population, in the biome class of: tropical & subtropical dry broadleaf forests.
PPOPBI3	percent population, in the biome class of: tropical & subtropical coniferous forests.
PPOPBI4	percent population, in the biome class of: temperate broadleaf & mixed forests.
PPOPBI5	percent population, in the biome class of: temperate conifer forests.
PPOPBI6	percent population, in the biome class of: boreal forests/taiga.
PPOPBI7	percent population, in the biome class of: tropical & subtropical grasslands, savannas & shrublands.
PPOPBI8	percent population, in the biome class of: temperate grasslands, savannas & shrublands.
PPOPBI9	percent population, in the biome class of: flooded grasslands & savannas.
PPOPBI10	percent population, in the biome class of: montane grasslands & shrublands.
PPOPBI11	percent population, in the biome class of: tundra.
PPOPBI12	percent population, in the biome class of: Mediterranean forests, woodlands & scrub.
PPOPBI13	percent population, in the biome class of: deserts & xeric shrublands.
PPOPBI14	percent population, in the biome class of: mangroves.
*	Population figures are expressed in thousands.
•	Categories are mutually exclusive. Where number values within variable description overlap (between class breakdowns), the higher end of the lower range is inclusive and the lower end of the higher range is exclusive. For example, ARDN1 is defined as "land area (sq. km.), where the population density is: 0 person per sq. km." and ARDN2 is defined as "land area (sq. km.), where the population density is: 0-2 persons per sq. km." Although the labels suggest possible overlap, ARDN2 is actually calculated as >0-2 persons per sq. km. Likewise, POPDN2 is actually calculated as, "number of persons living in area(s) where the population density is: >0-2 persons per sq. km."

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## **Citation**

The following citation is recommended when using data from this collection:

Center for International Earth Science Information Network (CIESIN), Columbia University, 2007. National Aggregates of Geospatial Data: Population, Landscape and Climate Estimates Version 2 (PLACE II), Palisades, NY: CIESIN, Columbia University. Available at: <http://sedac.ciesin.columbia.edu/place>