

# BasinATLAS Attributes (version 1.0)

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| ID                  | Category        | Attribute                            | Source Data               | Citation                    | Column(s)  | Count |
|---------------------|-----------------|--------------------------------------|---------------------------|-----------------------------|------------|-------|
| <a href="#">H01</a> | Hydrology       | Natural Discharge                    | WaterGAP v2.2             | Döll et al. 2003            | dis_m3_--- | x3    |
| <a href="#">H02</a> | Hydrology       | Land Surface Runoff                  | WaterGAP v2.2             | Döll et al. 2003            | run_mm_--- | x1    |
| <a href="#">H03</a> | Hydrology       | Inundation Extent                    | GIEMS-D15                 | Fluet-Chouinard et al. 2015 | inu_pc_--- | x6    |
| <a href="#">H04</a> | Hydrology       | Limnicity (Percent Lake Area)        | HydroLAKES                | Messager et al. 2016        | lka_pc_--- | x2    |
| <a href="#">H05</a> | Hydrology       | Lake Volume                          | HydroLAKES                | Messager et al. 2016        | lkv_mc_--- | x1    |
| <a href="#">H06</a> | Hydrology       | Reservoir Volume                     | GRanD v1.1                | Lehner et al. 2011          | rev_mc_--- | x1    |
| <a href="#">H07</a> | Hydrology       | Degree of Regulation                 | HydroSHEDS & GRanD        | Lehner et al. 2011          | dor_pc_--- | x1    |
| <a href="#">H08</a> | Hydrology       | River Area                           | HydroSHEDS & WaterGAP     | Lehner & Grill 2013         | ria_ha_--- | x2    |
| <a href="#">H09</a> | Hydrology       | River Volume                         | HydroSHEDS & WaterGAP     | Lehner & Grill 2013         | riv_tc_--- | x2    |
| <a href="#">H10</a> | Hydrology       | Groundwater Table Depth              | Global Groundwater Map    | Fan et al. 2013             | gwt_cm_--- | x1    |
| <a href="#">P01</a> | Physiography    | Elevation                            | EarthEnv-DEM90            | Robinson et al. 2014        | ele_mt_--- | x4    |
| <a href="#">P02</a> | Physiography    | Terrain Slope                        | EarthEnv-DEM90            | Robinson et al. 2014        | slp_dg_--- | x2    |
| <a href="#">P03</a> | Physiography    | Stream Gradient                      | EarthEnv-DEM90            | Robinson et al. 2014        | sgr_dk_--- | x1    |
| <a href="#">C01</a> | Climate         | Climate Zones                        | GEnS                      | Metzger et al. 2013         | clz_cl_--- | x1    |
| <a href="#">C02</a> | Climate         | Climate Strata                       | GEnS                      | Metzger et al. 2013         | cls_cl_--- | x1    |
| <a href="#">C03</a> | Climate         | Air Temperature                      | WorldClim v1.4            | Hijmans et al. 2005         | tmp_dc_--- | x16   |
| <a href="#">C04</a> | Climate         | Precipitation                        | WorldClim v1.4            | Hijmans et al. 2005         | pre_mm_--- | x14   |
| <a href="#">C05</a> | Climate         | Potential Evapotranspiration         | Global-PET                | Zomer et al. 2008           | pet_mm_--- | x14   |
| <a href="#">C06</a> | Climate         | Actual Evapotranspiration            | Global Soil-Water Balance | Trabucco & Zomer 2010       | aet_mm_--- | x14   |
| <a href="#">C07</a> | Climate         | Global Aridity Index                 | Global Aridity Index      | Zomer et al. 2008           | ari_ix_--- | x2    |
| <a href="#">C08</a> | Climate         | Climate Moisture Index               | WorldClim & Global-PET    | Hijmans et al. 2005         | cmi_ix_--- | x14   |
| <a href="#">C09</a> | Climate         | Snow Cover Extent                    | MODIS/Aqua                | Hall & Riggs 2016           | snw_pc_--- | x15   |
| <a href="#">L01</a> | Landcover       | Land Cover Classes                   | GLC2000                   | Bartholomé & Belward 2005   | glc_cl_--- | x1    |
| <a href="#">L02</a> | Landcover       | Land Cover Extent                    | GLC2000                   | Bartholomé & Belward 2005   | glc_pc_--- | x44   |
| <a href="#">L03</a> | Landcover       | Potential Natural Vegetation Classes | EarthStat                 | Ramankutty & Foley 1999     | pnv_cl_--- | x1    |
| <a href="#">L04</a> | Landcover       | Potential Natural Vegetation Extent  | EarthStat                 | Ramankutty & Foley 1999     | pnv_pc_--- | x30   |
| <a href="#">L05</a> | Landcover       | Wetland Classes                      | GLWD                      | Lehner & Döll 2004          | wet_cl_--- | x1    |
| <a href="#">L06</a> | Landcover       | Wetland Extent                       | GLWD                      | Lehner & Döll 2004          | wet_pc_--- | x22   |
| <a href="#">L07</a> | Landcover       | Forest Cover Extent                  | GLC2000                   | Bartholomé & Belward 2005   | for_pc_--- | x2    |
| <a href="#">L08</a> | Landcover       | Cropland Extent                      | EarthStat                 | Ramankutty et al. 2008      | crp_pc_--- | x2    |
| <a href="#">L09</a> | Landcover       | Pasture Extent                       | EarthStat                 | Ramankutty et al. 2008      | pst_pc_--- | x2    |
| <a href="#">L10</a> | Landcover       | Irrigated Area Extent (Equipped)     | HID v1.0                  | Siebert et al. 2015         | ire_pc_--- | x2    |
| <a href="#">L11</a> | Landcover       | Glacier Extent                       | GLIMS                     | GLIMS & NSIDC 2012          | gla_pc_--- | x2    |
| <a href="#">L12</a> | Landcover       | Permafrost Extent                    | PZI                       | Gruber 2012                 | prm_pc_--- | x2    |
| <a href="#">L13</a> | Landcover       | Protected Area Extent                | WDPA                      | IUCN & UNEP-WCMC 2014       | pac_pc_--- | x2    |
| <a href="#">L14</a> | Landcover       | Terrestrial Biomes                   | TEOW                      | Dinerstein et al. 2017      | tbi_cl_--- | x1    |
| <a href="#">L15</a> | Landcover       | Terrestrial Ecoregions               | TEOW                      | Dinerstein et al. 2017      | tec_cl_--- | x1    |
| <a href="#">L16</a> | Landcover       | Freshwater Major Habitat Types       | FEOW                      | Abell et al. 2008           | fmh_cl_--- | x1    |
| <a href="#">L17</a> | Landcover       | Freshwater Ecoregions                | FEOW                      | Abell et al. 2008           | fec_cl_--- | x1    |
| <a href="#">S01</a> | Soils & Geology | Clay Fraction in Soil                | SoilGrids1km              | Hengl et al. 2014           | cly_pc_--- | x2    |
| <a href="#">S02</a> | Soils & Geology | Silt Fraction in Soil                | SoilGrids1km              | Hengl et al. 2014           | slt_pc_--- | x2    |
| <a href="#">S03</a> | Soils & Geology | Sand Fraction in Soil                | SoilGrids1km              | Hengl et al. 2014           | snd_pc_--- | x2    |
| <a href="#">S04</a> | Soils & Geology | Organic Carbon Content in Soil       | SoilGrids1km              | Hengl et al. 2014           | soc_th_--- | x2    |
| <a href="#">S05</a> | Soils & Geology | Soil Water Content                   | Global Soil-Water Balance | Trabucco & Zomer 2010       | swc_pc_--- | x14   |
| <a href="#">S06</a> | Soils & Geology | Lithological Classes                 | GLiM                      | Hartmann & Moosdorf 2012    | lit_cl_--- | x1    |
| <a href="#">S07</a> | Soils & Geology | Karst Area Extent                    | Rock Outcrops v3.0        | Williams & Ford 2006        | kar_pc_--- | x2    |
| <a href="#">S08</a> | Soils & Geology | Soil Erosion                         | GloSEM v1.2               | Borrelli et al. 2017        | ero_kh_--- | x2    |
| <a href="#">A01</a> | Anthropogenic   | Population Count                     | GPW v4                    | CIESIN 2016                 | pop_ct_--- | x2    |
| <a href="#">A02</a> | Anthropogenic   | Population Density                   | GPW v4                    | CIESIN 2016                 | ppd_pk_--- | x2    |
| <a href="#">A03</a> | Anthropogenic   | Urban Extent                         | GHS S-MOD v1.0 (2016)     | Pesaresi & Freire 2016      | urb_pc_--- | x2    |
| <a href="#">A04</a> | Anthropogenic   | Nighttime Lights                     | Nighttime Lights v4       | Doll 2008                   | nli_ix_--- | x2    |
| <a href="#">A05</a> | Anthropogenic   | Road Density                         | GRIP v4                   | Meijer et al. 2018          | rdd_mk_--- | x2    |
| <a href="#">A06</a> | Anthropogenic   | Human Footprint                      | Human Footprint v2        | Venter et al. 2016          | hft_ix_--- | x4    |
| <a href="#">A07</a> | Anthropogenic   | Global Administrative Areas          | GADM v2.0                 | University of Berkeley 2012 | gad_id_--- | x1    |
| <a href="#">A08</a> | Anthropogenic   | Gross Domestic Product               | GDP PPP v2                | Kummu et al. 2018           | gdp_ud_--- | x3    |
| <a href="#">A09</a> | Anthropogenic   | Human Development Index              | HDI v2                    | Kummu et al. 2018           | hdi_ix_--- | x1    |

Total Variables: 56

Attributes: 281