AidData GeoQuery Request Documentation

Report Info

Request Name	Request 02-27-22 23:34
Request Id	621bfc7bc53d8f61f94c7d93
Email	bachirsabo@ymail.com
Generated on	2022-02-27 19:08:25 (EST)
Download Link	geo.aiddata.org/query/#!/status/621bfc7bc53d8f61f94c7d93

Processing Timeline

submitted	2022-02-27 17:34:35 (EST)
prepared	2022-02-27 18:35:14 (EST)
processed	2022-02-27 19:08:23 (EST)
completed	2022-02-27 19:08:25 (EST)

Citation

Please cite the following in any and all applications of the extracted datasets:

Goodman, S., BenYishay, A., Lv, Z., & Runfola, D. (2019). GeoQuery: Integrating HPC systems and public web-based geospatial data tools. Computers & Geosciences, 122, 103-112.

Contents of Request Zip

- request documentation (this pdf document)

- a comma separated value (CSV) file containing your data

- JSON file containing your request parameters

- GeoQuery paper (pdf)

For additional information, usage tips, guides and more please visit *geo.aiddata.org*.

To get in touch, please contact us via *geo@aiddata.org*.

Meta Information

Boundary

Title	Liberia ADM1 - GeoBoundaries v4
Name	lbr_adm1_gb_v4
Version	v4
Description	GeoBoundaries boundary file for ADM1 in Liberia.
Details	(no additional details)
Bounding Box	[[[-11.500396555999941, 8.55249686600007], [-11.500396555999941, 4.354004312000029], [-7.368559990999927, 4.354004312000029], [-7.368559990999927, 8.55249686600007], [-11.500396555999941, 8.55249686600007]]]
Date Added	2021-09-08
Date Updated	2021-09-08
Source Name	geoBoundaries
Source Link	http://www.geoboundaries.org
Citation	Runfola, Daniel, Austin Anderson, Heather Baier, Matt Crittenden, Elizabeth Dowker, Sydney Fuhrig, Seth Goodman, Grace Grimsley, Rachel Layko, Graham Melville, Maddy Mulder, Rachel Oberman, Joshua Panganiban, Andrew Peck, Leigh Seitz, Sylvia Shea, Hannah Slevin, Rebecca Yougerman, Lauren Hobbs. "geoBoundaries: A global database of political administrative boundaries." Plos one 15, no. 4 (2020): e0231866.

Selection 1 - Annual VIIRS Nighttime Lights v2 - Average Value

Title	Annual VIIRS Nighttime Lights v2 - Average Value
Name	viirs_ntl_annual_v20_avg_masked
Version	2
Column Names	Format: "viirs_ntl_annual_v20_avg_masked.<temporal>.<method>" for all combinations of <temporal> and <method> which can be found in the "Temporal Selection" and "Extract Types Selected" fields below (45 columns total)
Temporal Selection (0)	2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012
Extract Types Selected	max (maximum value measured within each unit of analysis), mean (average value measured within each unit of analysis), min (minimum value measured within each unit of analysis), sum (sum of values measured within each unit of analysis), count (total count of pixels per unit of analysis)
Description	Annual VIIRS nighttime lights product Version 2. Average value with background pixels masked. Please use in combination with VIIRS Nighttime Light Cloud Free Coverage product to confirm sufficient cloud free measurements are available within your boundary features.
Details	
Bounding Box	[[[-180, 75.00208333335], [-180, -65.00208445335001], [180, -65.00208445335001], [180, 75.00208333335], [-180, 75.00208333335]]]
Date Added	2021-09-14
Date Updated	2021-09-14
Source Name	Earth Observation Group - VIIRS Nighttime Lights
Source Link	https://eogdata.mines.edu/products/vnl/
Citation	C. D. Elvidge, M. Zhizhin, T. Ghosh, F-C. Hsu, Annual time series of global VIIRS nighttime lights derived from monthly averages: 2012 to 2019, Remote Sensing
Variable Description	Radiance (nW cm^-2 sr^-1)
Resolution	0.0041666667
Factor	1.0

Selection 2 - Particulate Matter (PM2.5) Concentration

Title	Particulate Matter (PM2.5) Concentration
Name	ambient_air_pollution_2013_fus_calibrated
Version	2013
Column Names	Format: "ambient_air_pollution_2013_fus_calibrated.<temporal>.<method>" for all combinations of <temporal> and <method> which can be found in the "Temporal Selection" and "Extract Types Selected" fields below (8 columns total)
Temporal Selection (0)	2013, 2012, 2011, 2010, 2005, 2000, 1995, 1990
Extract Types Selected	mean (average PM2.5 concentration for each unit of analysis)
Description	Particulate matter (PM2.5) estimate, based on prediction model using combination of satellite-based estimate and TM5-FASST simulation.
Details	(no additional details)
Bounding Box	[[[-180.0, 70.0], [-180.0, -55.900000000000006], [180.0, -55.900000000000006], [180.0, 70.0], [-180.0, 70.0]]]
Date Added	2017-05-08
Date Updated	2017-05-08
Source Name	Ambient air pollution exposure estimation for the Global Burden of Disease 2013
Source Link	http://www.healthdata.org/research-article/ambient-air-pollution-exposure-estimation-global-burden-disease-2013
Citation	Brauer M, Freedman G, Frostad J, van Donkelaar A, Martin RV, Dentener F, Van Dingenen R, Estep K, Amini H, Apte JS, Balakrishnan K, Barregard L, Broday DM, Feigin V, Ghosh S, Hopke PK, Knibbs LD, Kokubo Y, Liu Y, Ma S, Morawska L, Sangrador JLT, Shaddick G, Anderson HR, Vos T, Forouzanfar MH, Burnett RT, Cohen A. Ambient air pollution exposure estimation for the Global Burden of Disease 2013. Environmental Science & Technology. 2015 Nov 23. doi: 10.1021/acs.est.5b03709.
Variable Description	PM2.5 concentration (ug/m3)
Resolution	0.1
Factor	1.0

Selection 3 - OCO-2 (v10r) - CO2 Concentration (yearly)

Title	OCO-2 (v10r) - CO2 Concentration (yearly)
Name	oco2_v10r_xco2_yearly
Version	10r
Column Names	Format: "oco2_v10r_xco2_yearly.<temporal>.<method>" for all combinations of <temporal> and <method> which can be found in the "Temporal Selection" and "Extract Types Selected" fields below (18 columns total)
Temporal Selection (0)	2020, 2019, 2018, 2017, 2016, 2015
Extract Types Selected	mean (average co2 concentration (ppm) per unit of analysis), max (maximum co2 concentration (ppm) per unit of analysis), min (minimum co2 concentration (ppm) per unit of analysis)
Description	The average concentration of carbon dioxide in a column of dry air extending from Earth's surface to the top of the atmosphere. The raster used is the result of aggregating one year of data to a 10km grid and then using a linear interpolation to fill gaps. The underlying data were produced by NASA's OCO-2 project, and obtained from the OCO-2 data archive maintained at the NASA Goddard Earth Science Data and Information Services Center.
Details	
Bounding Box	[[[-180.0, 90.0], [-180.0, -90], [180, -90], [180, 90.0], [-180.0, 90.0]]]
Date Added	2021-09-14
Date Updated	2021-09-22
Source Name	NASA Goddard Earth Science Data and Information Services Center
Source Link	https://disc.gsfc.nasa.gov/datasets/OCO2_L2_Lite_FP_10r/summary
Citation	OCO-2 Science Team/Michael Gunson, Annmarie Eldering (2020), OCO-2 Level 2 bias-corrected XCO2 and other select fields from the full-physics retrieval aggregated as daily files, Retrospective processing V10r, Greenbelt, MD, USA, Goddard Earth Sciences Data and Information Services Center (GES DISC), Accessed: [2021-07-20], 10.5067/E4E140XDMPO2
Variable Description	co2 concentration in parts per million (ppm)
Resolution	0.1
Factor	1.0

Interpreting CSV Column Names

Each CSV will contain a column labeled "asdf_id" which has values for each feature that are unique (within that boundary dataset), one or more columns for your extract data, followed by the original source attributes for the boundary file (e.g., from GADM)

The standard format for extract data column names is a three part string delimited by periods (.)

<dataset>.<filter>.<method>

where

<dataset> is the name of the dataset which was extracted

<filter> describes how the dataset was filtered. This is usually a temporal value (e.g., YYYY format for year such as "1999", "none" for temporally invariant data, or a unique hash describing more complex filters, such as for aid datasets)

<method> is the extract method used to aggregate dataset values to boundary features (e.g., "mean", "sum")

Notes - Aid data extracts

The <filter> component of aid data extracts is a unique hash that corresponds to the filter combination used to generate that particular aid data extract (e.g., donor, sector, year, status). For each aid data extract you request, you will see three columns in the CSV that have the same <dataset> and <filter> sections of the column name with the <methods> of the three being different.

These three <method> values are:

- "sum" is the total aid for each feature within the boundary based on the distribution of aid used when building the aid data

- "potential" is the maximum aid that could have been allocated to each feature regardless of the distribution of aid used

- "reliability" is a ratio of sum:potential representing a simplistic measure of how accurate the distribution and aggregation of aid was relative to the boundary features used during the extract process

Notes - Categorical extracts

Data extracted using the categorical method will have multiple columns with the same <dataset> and <filter> where the .<method> for each is "categorical_.<category>.

For a simple landcover dataset this might look like:

- landcover.2000.categorical_water

- landcover.2000.categorical_forest

- landcover.2000.categorical_desert

Usage Notes

- If you attempt to merge GeoQuery results wth vector data (e.g., shapefiles) downloaded from GADM, the GADM data may not always contain a unique id field to merge on. In these cases, please feel free to contact us and we can provide you with a modified file that contains a unique field for merging ("asdf_id" field, found in all result csvs).

Notes About Aid Datasets

- When requesting aid data using a very specific filter (usually resulting in only a single project match), the location count shown in GeoQuery may be inaccurate. This can result in aid filters which appear valid while building your request, but result in no aid data in your results csv. This is due to a slight reduction in the accuracy of location counts for the web page in order to make the responses fast enough for user interaction.

- The year filter for aid data is based on project start and end dates (determined by earliest and latest transactions). Because projects are represented by year ranges, multiple aid data selections for individual years may contain duplicate aid. This will result in an inflated total if you sum the aid from each individual year (compared to a single selection for all years). Limited source information on individual or even yearly transactions for a project prevent us from offering more granular temporal aid values for projects.

- All aid data selections result in commitment values, regardless of whether you filter by commitment values or disbursement values (or both). This is due to the notably better project coverage of commitments vs disbursements (e.g., World Bank aid dataset has 99% commitment coverage vs ~75% for disbursements).

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