

COUNTRY EXPOSURE MODEL

Review main statistic of a exposure model and create summaries for a given Country.

```
/home/risk/venvs/py38w/lib/python3.8/site-packages/geopandas/_compat.py:111: UserWarning: The Shapely GEOS version (3.9.1-CAPI-1.14.2) is incompatible with the GEOS version PyGEOS was compiled with (3.10.1-CAPI-1.16.0). Conversions between both will be slow.
  warnings.warn(
```

```
# Parameters
country = "Suriname"
```

Exposure files:
Exposure_Com_Suriname.csv
Exposure_Ind_Suriname.csv
Exposure_Res_Suriname.csv

Sanity checks and formats

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	586.6K	42,593	\$2,091.9M	89.46%	75.94%
Ind	0.0K	2,168	\$300.8M	4.55%	10.92%
Com	0.0K	2,848	\$362.1M	5.98%	13.15%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	5,520.7K	\$2,011.7M	116	\$499
Res	4,416.5K	\$1,607.2M	104	\$474
Ind	496.8K	\$161.5M	229	\$605
Com	607.4K	\$243.0M	213	\$596

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Paramaribo	\$1,316.6M	21,033	310,830	47.79%	44.18%	52.99%
Wanica	\$442.3M	7,092	103,765	16.05%	14.90%	17.69%
Nickerie	\$267.0M	5,332	44,462	9.69%	11.20%	7.58%
Sipaliwini	\$200.6M	4,248	28,972	7.28%	8.92%	4.94%
Commewijne	\$146.6M	2,462	32,729	5.32%	5.17%	5.58%
Saramacca	\$123.9M	2,617	17,797	4.50%	5.50%	3.03%
Para	\$84.8M	1,383	19,474	3.08%	2.91%	3.32%
Marowijne	\$83.9M	1,567	15,785	3.04%	3.29%	2.69%
Brokopondo	\$66.7M	1,416	9,656	2.42%	2.97%	1.65%
Coronie	\$22.5M	460	3,103	0.82%	0.97%	0.53%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column						
	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
MUR	\$1,690,737.7K	34,492	528,027	61.37%	72.45%	90.02%
W	\$442,949.0K	8,477	58,289	16.08%	17.81%	9.94%
RC	\$301,663.0K	1,723	0	10.95%	3.62%	0.00%
MCF	\$215,956.3K	1,744	0	7.84%	3.66%	0.00%
S	\$80,250.0K	837	0	2.91%	1.76%	0.00%
MR	\$22,067.9K	306	0	0.80%	0.64%	0.00%
OT	\$1,208.1K	29	258	0.04%	0.06%	0.04%

Exposure by taxonomy

Showing only taxonomies that represent 90% of the total `COST_USD`

	COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY			
MUR	MUR/LWAL+DNO/H:1/RES	\$931.3M	23,876	37.68%
	MUR/LWAL+DNO/H:2/RES	\$718.4M	10,233	29.07%
W	W+WOLWAL+DNO/H:1/RES	\$241.3M	5,919	9.76%
MCF	MCF/LWAL+DNO/H:2/COM	\$98.5M	689	3.98%
W	W+WOLWAL+DNO/H:2/RES	\$93.1M	1,268	3.77%
RC	CR/LFINF+DNO/HBET:1-3/IND	\$81.0M	475	3.28%
W	W+WLI/LWAL+DNO/H:1/RES	\$73.5M	1,015	2.98%
MCF	MCF/LWAL+DNO/H:2/IND	\$58.7M	361	2.37%
	MCF/LWAL+DNO/H:1/COM	\$35.2M	492	1.42%
W	W+WLI/LWAL+DNO/H:2/RES	\$33.1M	253	1.34%
RC	CR/LFINF+DUL/HBET:1-3/IND	\$30.0M	176	1.22%
	CR/LFINF+DUL/HBET:4-6/COM	\$27.3M	71	1.11%
MUR	MUR/LWAL+DNO/H:2/COM	\$26.0M	182	1.05%
S	SR/LFM+DUL/H:1/IND	\$24.0M	271	0.97%

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