

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 = "Cameroon"
```

Exposure files:
Exposure_Com_Cameroon.csv
Exposure_Ind_Cameroon.csv
Exposure_Res_Cameroon.csv

Sanity checks and formats

Cameroon
Exposure/Exposure/Exposure_Com_Cameroon.csv
Exposure/Exposure/Exposure_Ind_Cameroon.csv
Exposure/Exposure/Exposure_Res_Cameroon.csv
Occupants / Dwellings = 4.9
Reference avg household size (2019) = 5.0
Population (exposure / UN_2021) = 0.97
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	26.5M	5,033.7K	\$99.3B	94.32%	81.45%
Ind	0.0M	82.1K	\$7.2B	1.54%	5.87%
Com	0.0M	221.1K	\$15.5B	4.14%	12.68%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	498.0M	\$97,645.6M	93	\$245
Res	430.3M	\$81,840.2M	85	\$231
Ind	23.4M	\$4,559.2M	285	\$306
Com	44.3M	\$11,246.2M	201	\$348

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Centre	\$24,703.2M	1,094.8K	5,450.0K	20.27%	20.51%	20.56%
Littoral	\$22,525.3M	842.7K	4,254.8K	18.48%	15.79%	16.05%
Far-North	\$17,885.3M	912.0K	4,450.7K	14.67%	17.09%	16.79%
North	\$11,706.4M	605.4K	2,948.5K	9.61%	11.34%	11.12%
Northwest	\$10,596.0M	442.0K	2,217.6K	8.69%	8.28%	8.36%
West	\$9,815.0M	403.0K	2,030.3K	8.05%	7.55%	7.66%
Southwest	\$9,660.2M	362.4K	1,827.1K	7.93%	6.79%	6.89%
Adamawa	\$6,205.3M	278.8K	1,380.4K	5.09%	5.22%	5.21%
East	\$4,527.7M	208.2K	1,024.2K	3.71%	3.90%	3.86%
South	\$4,253.3M	187.7K	928.8K	3.49%	3.52%	3.50%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
MUR	\$35,121.1M	1,712.0K	8,267.0K	28.82%	32.08%	31.18%
RC	\$24,913.6M	502.1K	2,907.5K	20.44%	9.41%	10.97%
W	\$20,821.7M	1,061.1K	5,347.4K	17.08%	19.88%	20.17%
MCF	\$20,046.9M	615.2K	2,866.8K	16.45%	11.53%	10.81%
ADO/E	\$18,076.1M	1,282.0K	6,398.3K	14.83%	24.02%	24.13%
S	\$2,223.3M	20.5K	0.0K	1.82%	0.38%	0.00%
OT	\$674.9M	143.9K	725.3K	0.55%	2.70%	2.74%

Exposure by taxonomy

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

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
RC	CR/LFINF+CDL/H:3/RES	\$6,399.5M	139,593	5.85%	2.76%
W	W/LWAL+CDL/H:2/RES	\$6,307.9M	248,856	5.77%	4.92%
MUR	MUR+CB/LWAL+CDN/H:2/RES	\$6,238.1M	295,326	5.71%	5.83%
MCF	MCF+CB/LWAL+CDL/H:2/RES	\$5,891.2M	185,936	5.39%	3.67%
ADO/E	MUR+ADO/LWAL+CDN/H:2/RES	\$5,819.1M	306,103	5.32%	6.05%
RC	CR/LFINF+CDL/H:2/RES	\$5,208.9M	174,677	4.76%	3.45%
MUR	MUR+CL/LWAL+CDN/H:2/RES	\$4,916.6M	232,764	4.50%	4.60%
W	W/LWAL+CDL/H:3/RES	\$3,874.9M	99,439	3.54%	1.96%
	W/LWAL+CDL/H:1/RES	\$3,830.3M	255,237	3.50%	5.04%
MUR	MUR+CB/LWAL+CDN/H:1/RES	\$3,787.9M	302,899	3.46%	5.98%
MCF	MCF+CB/LWAL+CDL/H:1/RES	\$3,577.3M	190,703	3.27%	3.77%
ADO/E	MUR+ADO/LWAL+CDN/H:1/RES	\$3,533.5M	313,948	3.23%	6.20%
MCF	MCF+CL/LWAL+CDL/H:2/RES	\$3,061.3M	96,619	2.80%	1.91%
MUR	MUR+CL/LWAL+CDN/H:1/RES	\$2,985.5M	238,732	2.73%	4.72%
	MUR+STDRE/LWAL+CDN/H:2/RES	\$2,917.6M	138,127	2.67%	2.73%
RC	CR/LFINF+CDL/HBET:4-7/RES	\$2,855.3M	6,399	2.61%	0.13%
W	W+WWD/LWAL+CDN/H:1/RES	\$2,851.2M	303,991	2.61%	6.00%
ADO/E	E+ETO/LWAL+CDN/H:1/RES	\$2,715.4M	289,515	2.48%	5.72%
W	W+WWD/LWAL+CDN/H:2/RES	\$2,012.3M	127,024	1.84%	2.51%
MUR	MUR+STRUB/LWAL+CDN/H:2/RES	\$1,960.7M	116,031	1.79%	2.29%
MCF	MCF+CL/LWAL+CDL/H:1/RES	\$1,858.9M	99,099	1.70%	1.96%
ADO/E	MUR+ADO/LWAL+CDN/H:2/COM	\$1,823.7M	25,915	1.67%	0.51%
	MUR+ADO/LWAL+CDN/H:1/COM	\$1,776.2M	51,833	1.62%	1.02%
MUR	MUR+STDRE/LWAL+CDN/H:1/RES	\$1,771.6M	141,669	1.62%	2.80%
RC	CR/LWAL+CDL/H:3/RES	\$1,766.1M	38,521	1.62%	0.76%
MCF	MCF+CB/LWAL+CDL/HBET:3-6/RES	\$1,644.3M	5,298	1.50%	0.10%
RC	CR/LWAL+CDL/H:2/RES	\$1,437.5M	48,204	1.31%	0.95%
ADO/E	EWV/LN+CDN/H:1/RES	\$1,357.7M	289,515	1.24%	5.72%
MUR	MUR+STRUB/LWAL+CDN/H:1/RES	\$1,190.6M	119,005	1.09%	2.35%
RC	CR/LFINF+CDL/H:1/RES	\$903.7M	51,188	0.83%	1.01%
	CR/LFINF+CDL/HBET:8+/RES	\$892.3M	1,600	0.82%	0.03%
MCF	MCF+CL/LWAL+CDL/HBET:3-6/RES	\$854.4M	2,754	0.78%	0.05%
	MUR+CB/LWAL+CDN/HBET:3-6/RES	\$824.7M	3,986	0.75%	0.08%
MUR	MUR+CB/LWAL+CDN/H:2/COM	\$810.6M	9,217	0.74%	0.18%
	MUR+CB/LWAL+CDN/H:1/COM	\$789.5M	18,428	0.72%	0.36%
RC	CR/LWAL+CDL/HBET:4-7/RES	\$788.0M	1,765	0.72%	0.03%
ADO/E	MUR+ADO/LWAL+CDN/HBET:3-6/RES	\$769.3M	4,130	0.70%	0.08%
RC	CR/LFINF+CDL/H:3/COM	\$761.4M	3,326	0.70%	0.07%
W	W/LWAL+CDL/H:2/COM	\$753.6M	7,952	0.69%	0.16%
	W/LWAL+CDL/H:1/COM	\$734.0M	15,912	0.67%	0.31%
S	S/LFM+CDL/H:1/IND	\$702.3M	8,393	0.64%	0.17%
	MUR+CL/LWAL+CDN/HBET:3-6/RES	\$650.0M	3,138	0.59%	0.06%
MUR	MUR+CL/LWAL+CDN/H:2/COM	\$647.2M	7,357	0.59%	0.15%
	MUR+CL/LWAL+CDN/H:1/COM	\$630.4M	14,718	0.58%	0.29%
RC	CR/LFINF+CDL/H:2/COM	\$627.1M	4,991	0.57%	0.10%
MCF	MCF+CB/LWAL+CDL/H:2/COM	\$623.0M	5,312	0.57%	0.10%
	MCF+CB/LWAL+CDL/H:1/COM	\$606.8M	10,626	0.56%	0.21%
S	S+SL/LFM+CDL/H:1/IND	\$584.9M	6,990	0.54%	0.14%