

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 S
hapely GEOS version (3.9.1-CAPI-1.14.2) is incompatible with the GEOS version PyGEOS was compil
ed with (3.10.1-CAPI-1.16.0). Conversions between both will be slow.
  warnings.warn(
```

```
# Parameters
country = "Guinea_Bissau"
```

Exposure files:
Exposure_Com_Guinea_Bissau.csv
Exposure_Ind_Guinea_Bissau.csv
Exposure_Res_Guinea_Bissau.csv

Sanity checks and formats

Guinea_Bissau
Exposure/Exposure/Exposure_Com_Guinea_Bissau.csv
Exposure/Exposure/Exposure_Ind_Guinea_Bissau.csv
Exposure/Exposure/Exposure_Res_Guinea_Bissau.csv
Occupants / Dwellings = 8.2
Reference avg household size (2019) = 8.3
Population (exposure / UN_2021) = 0.98
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	1,966.0K	228,757	\$4,579.4M	95.35%	83.61%
Ind	0.0K	2,275	\$238.9M	0.95%	4.36%
Com	0.0K	8,879	\$658.7M	3.70%	12.03%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	20,514.6K	\$4,458.1M	86	\$267
Res	18,246.3K	\$3,809.7M	80	\$251
Ind	636.8K	\$157.6M	280	\$375
Com	1,631.5K	\$490.8M	184	\$404

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Bissau	\$1,551.7M	67,753	555.3K	28.33%	28.24%	28.24%
Gabu	\$785.7M	34,332	281.4K	14.35%	14.31%	14.31%
Oio	\$774.6M	33,858	277.4K	14.14%	14.11%	14.11%
Bafat	\$731.2M	31,994	262.1K	13.35%	13.34%	13.33%
Cacheu	\$625.2M	27,386	224.5K	11.42%	11.42%	11.42%
Biombo	\$389.4M	17,113	140.3K	7.11%	7.13%	7.13%
Tombali	\$308.8M	13,596	111.5K	5.64%	5.67%	5.67%
Quinara	\$204.4M	9,055	74.2K	3.73%	3.77%	3.77%
Bolama	\$106.0M	4,824	39.4K	1.94%	2.01%	2.01%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column						
	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
ADO/E	\$1,929.1M	86,726	715.3K	35.22%	36.15%	36.38%
MUR	\$1,889.9M	67,008	527.9K	34.51%	27.93%	26.85%
W	\$1,089.4M	68,621	577.8K	19.89%	28.60%	29.39%
RC	\$240.1M	3,747	38.2K	4.38%	1.56%	1.94%
MCF	\$196.2M	4,667	38.1K	3.58%	1.95%	1.94%
S	\$79.4M	568	0.0K	1.45%	0.24%	0.00%
OT	\$53.0M	8,574	68.6K	0.97%	3.57%	3.49%

Exposure by taxonomy

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

		COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MACRO_TAXO	TAXONOMY				
ADO/E	MUR+ADO/LWAL+CDN/H:2/RES	\$900.1M	35,943	18.31%	15.64%
W	W+WWD/LWAL+CDN/H:1/RES	\$565.8M	45,796	11.51%	19.92%
ADO/E	MUR+ADO/LWAL+CDN/H:1/RES	\$546.6M	36,862	11.12%	16.04%
MUR	MUR+CB/LWAL+CDN/H:2/RES	\$524.7M	18,858	10.67%	8.20%
W	W+WWD/LWAL+CDN/H:2/RES	\$399.4M	19,137	8.12%	8.33%
MUR	MUR+CB/LWAL+CDN/H:1/RES	\$318.6M	19,342	6.48%	8.41%
	MUR+CL/LWAL+CDN/H:2/RES	\$226.1M	8,127	4.60%	3.54%
ADO/E	MUR+ADO/LWAL+CDN/H:2/COM	\$146.4M	1,580	2.98%	0.69%
	MUR+ADO/LWAL+CDN/H:1/COM	\$142.6M	3,155	2.90%	1.37%
MUR	MUR+CL/LWAL+CDN/H:1/RES	\$137.3M	8,333	2.79%	3.63%
ADO/E	MUR+ADO/LWAL+CDN/HBET:3-6/RES	\$119.0M	484	2.42%	0.21%
MUR	MUR+STDRE/LWAL+CDN/H:2/RES	\$85.7M	3,078	1.74%	1.34%
	MUR+CB/LWAL+CDN/H:2/COM	\$85.5M	739	1.74%	0.32%
	MUR+CB/LWAL+CDN/H:1/COM	\$83.3M	1,478	1.69%	0.64%
RC	CR/LFINF+CDL/H:3/RES	\$80.2M	1,326	1.63%	0.58%
MUR	MUR+CB/LWAL+CDN/HBET:3-6/RES	\$69.4M	254	1.41%	0.11%
RC	CR/LFINF+CDL/H:2/RES	\$65.3M	1,665	1.33%	0.72%
MCF	MCF+CB/LWAL+CDL/H:2/RES	\$60.9M	1,457	1.24%	0.63%
MUR	MUR+CB/LWAL+CDN/H:1/IND	\$55.7M	786	1.13%	0.34%
ADO/E	EWV/LN+CDN/H:1/RES	\$53.4M	8,639	1.09%	3.76%
MUR	MUR+STDRE/LWAL+CDN/H:1/RES	\$52.0M	3,156	1.06%	1.37%
W	W/LWAL+CDL/H:2/RES	\$47.8M	1,435	0.97%	0.62%
MUR	MUR+CB/LWAL+CDN/H:2/IND	\$40.5M	260	0.82%	0.11%
OT	ME+MEO/LWAL+CDN/H:1/RES	\$38.2M	6,180	0.78%	2.69%
MCF	MCF+CB/LWAL+CDL/H:1/RES	\$37.0M	1,495	0.75%	0.65%
MUR	MUR+CL/LWAL+CDN/H:2/COM	\$35.9M	308	0.73%	0.13%