

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 = "Brunei"
```

Exposure files:
Exposure_Com_Brunei.csv
Exposure_Ind_Brunei.csv
Exposure_Res_Brunei.csv

Sanity checks and formats

Brunei
Exposure/Exposure/Exposure_Com_Brunei.csv
Exposure/Exposure/Exposure_Ind_Brunei.csv
Exposure/Exposure/Exposure_Res_Brunei.csv
Occupants / Dwellings = 6.0
No reference household size data available
Population (exposure / UN_2021) = 0.89
Exposure models OK

Exposure at National level

Summary by occupancy type

	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
OCCUPANCY					
Res	393.4K	59,073	\$6,147.9M	93.94%	87.88%
Ind	0.0K	1,397	\$170.8M	2.22%	2.44%
Com	0.0K	2,412	\$677.1M	3.84%	9.68%

Other metrics to consider

	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
OCCUPANCY				
Total	7,329.5K	\$5,227.1M	117	\$954
Res	6,472.5K	\$4,736.7M	110	\$950
Ind	202.2K	\$81.9M	145	\$845
Com	654.8K	\$408.6M	271	\$1,034

Exposure summary at Admin level 1

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
NAME_1						
Brunei and Muara	\$5,080.8M	43,594	279.9K	72.63%	69.33%	71.16%
Belait	\$1,104.5M	10,288	60.7K	15.79%	16.36%	15.44%
Tutong	\$669.8M	7,311	43.9K	9.57%	11.63%	11.15%
Temburong	\$140.7M	1,689	8.9K	2.01%	2.69%	2.25%

Exposure by simplified taxonomy

Adding `MACRO_TAXO` column

	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MACRO_TAXO						
RC	\$3,743.8M	14,477	113,684	53.52%	23.02%	28.90%
MUR	\$2,007.1M	30,565	177,305	28.69%	48.61%	45.07%
MIX	\$762.4M	11,581	68,362	10.90%	18.42%	17.38%
W	\$415.6M	5,782	32,557	5.94%	9.20%	8.28%
S	\$54.4M	242	0	0.78%	0.38%	0.00%
OT	\$12.4M	235	1,464	0.18%	0.37%	0.37%

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:2/RES	\$1,166.6M	14,691	18.75%	25.63%
RC	CR/LFINF+DUL/H:2/RES	\$827.4M	5,746	13.30%	10.02%
MUR	MUR/LWAL+DNO/H:1/RES	\$781.5M	14,762	12.56%	25.76%
	CR/LFINF+DUL/H:4/RES	\$635.7M	301	10.22%	0.53%
RC	CR/LFINF+DUL/H:5/RES	\$594.0M	180	9.55%	0.31%
	CR/LFINF+DUL/H:1/RES	\$553.8M	5,769	8.90%	10.07%
	MIX(M-W)/RES	\$365.2M	5,681	5.87%	9.91%
MIX	MIX(CR-W)/RES	\$362.3M	5,635	5.82%	9.83%
RC	CR/LDUAL+DUM/HBET:6-12/RES	\$247.1M	26	3.97%	0.05%
W	W+WO/LN/H:1/RES	\$240.1M	3,735	3.86%	6.52%
	CR/LFINF+DUL/H:3/RES	\$215.4M	748	3.46%	1.31%
RC	CR/LDUAL+DUL/HBET:6-12/COM3	\$123.8M	27	1.99%	0.05%
	CR/LDUAL+DUL/HBET:13-/COM3	\$110.0M	16	1.77%	0.03%

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