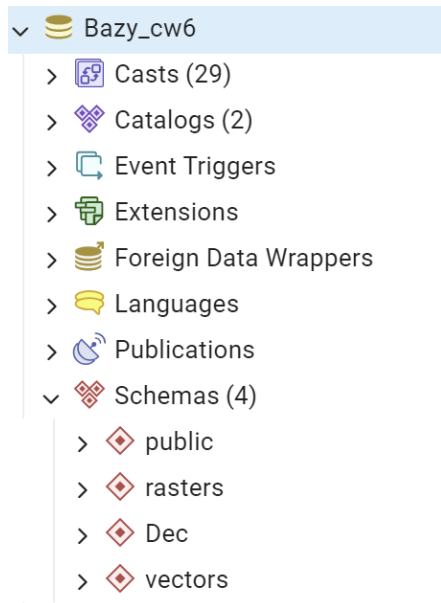


Ćwiczenia 6-7

1.

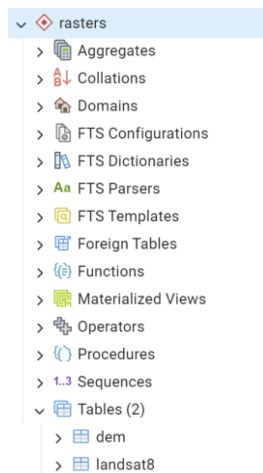
```
CREATE EXTENSION postgis;  
CREATE EXTENSION postgis_raster;
```



2.

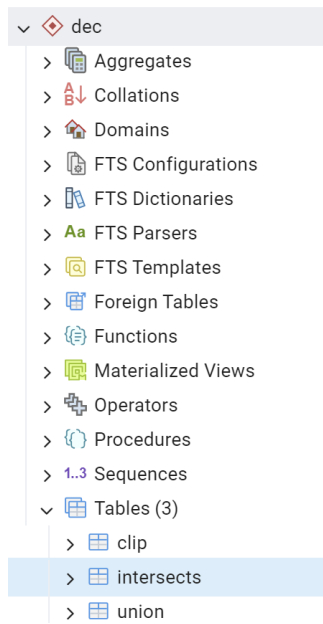
```
raster2pgsql.exe -s 3763 -N -32767 -t 100x100 -I -C -M -d  
"C:\Users\leweli\Studia\BazyDanychPrzestrzennych\cw6\Rastry\srtm_1arc_v3.tif" rasters.dem |  
psql -d Bazy_cw6 -h localhost -U postgres -p 5432
```

```
raster2pgsql.exe -s 3763 -N -32767 -t 128x128 -I -C -M -d  
"C:\Users\leweli\Studia\BazyDanychPrzestrzennych\cw6\Rastry\Landsat8_L1TP_RGBN.tif"  
rasters.landsat8 | psql -d Bazy_cw6 -h localhost -U postgres -p 5432
```



3.

Tworzenie rastrow z istniejących rastrow i interakcja z wektorami



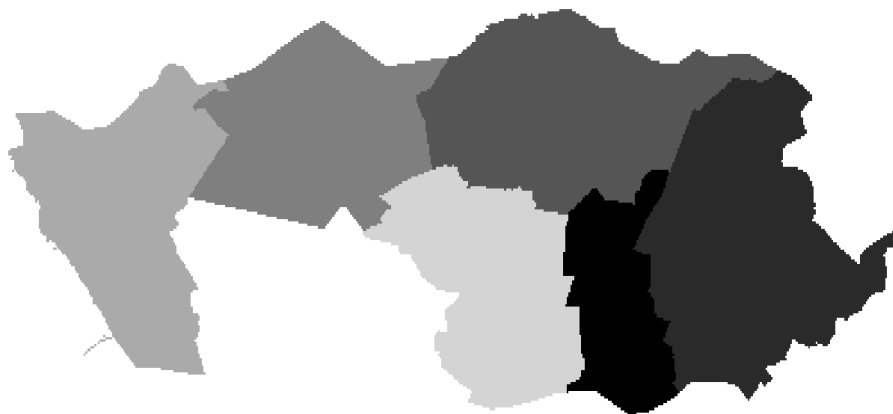
4.

Tworzenie rastrow z wektorów (rastrowanie)

ST_AsRaster



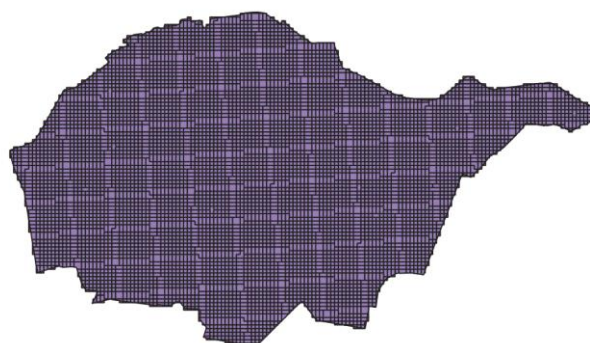
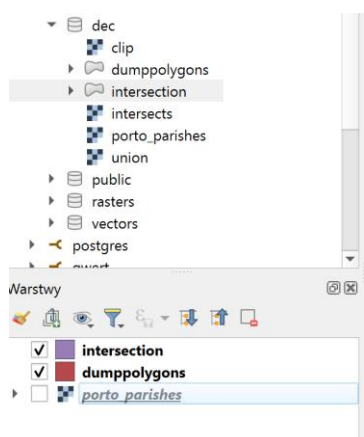
ST_Union



ST_Tile

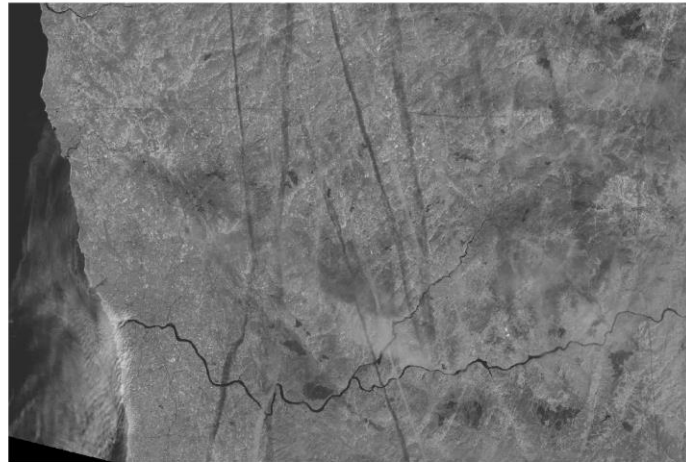
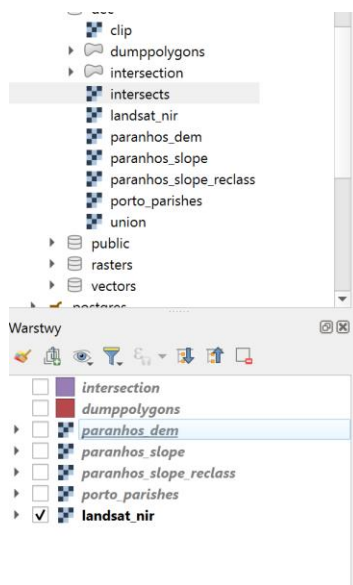


Konwertowanie rastrów na wektory (wektoryzowanie)



Analiza rastrów

ST_Band



ST_Clip



ST_Slope



ST_Reclass



ST_SummaryStats

| | stats summarystats | 🔒 |
|---|---|---|
| 1 | (2616,278385,106.41628440366972,11.622628762211638,87,14... | |
| 2 | (682,95581,140.14809384164224,12.078072186605759,103,158) | |
| 3 | (216,31874,147.5648148148148,4.262830628315728,137,158) | |
| 4 | (6463,816615,126.35231316725978,14.0438229209133,94,158) | |

ST_SummaryStats oraz Union

| | st_summarystats summarystats | 🔒 |
|---|--|---|
| 1 | (9977,1222455,122.52731281948482,16.908004202736272,87,15... | |

ST_SummaryStats z lepszą kontrolą złożonego typu danych

| | min double precision 🔒 | max double precision 🔒 | mean double precision 🔒 |
|---|---------------------------|---------------------------|----------------------------|
| 1 | 87 | 158 | 122.52731281948482 |

ST_SummaryStats w połączeniu z GROUP BY

| | parish character varying (254) 🔒 | min double precision 🔒 | max double precision 🔒 | mean double precision 🔒 |
|---|---|---------------------------|---------------------------|----------------------------|
| 1 | Bonfim | 1 | 159 | 107.5658842667906 |
| 2 | Campanhã | 0 | 178 | 74.66732213085449 |
| 3 | Paranhos | 87 | 158 | 122.52731281948482 |
| 4 | Ramalde | 48 | 108 | 77.58444444444444 |
| 5 | União das freguesias de Aldoar, Foz do Douro e Nevogilde | -4 | 83 | 34.66735489791237 |
| 6 | União das freguesias de Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitó... | 1 | 157 | 95.00277741039545 |
| 7 | União das freguesias de Lordelo do Ouro e Massarelos | -1 | 117 | 49.50051440329218 |

ST_Value

| | name character varying (48) 🔒 | st_value double precision 🔒 |
|---|----------------------------------|--------------------------------|
| 1 | Aldeia São Miguel | 96 |
| 2 | Alpendurada e Matos | 145 |
| 3 | Amarante | 71 |
| 4 | Baião | 581 |
| 5 | Cabeceiras de Basto | [null] |
| 6 | Castelo de Paiva | 284 |
| 7 | Celorico de Basto | 227 |
| 8 | Cinfães | 405 |
| 9 | Espinho | 14 |

ST_TPI

```

128  create table dec.tpi30 as
129  select ST_TPI(a.rast,1) as rast
130  from rasters.dem a;

```

Data Output Messages Notifications

SELECT 589

Query returned successfully in 1 min 16 secs.

```

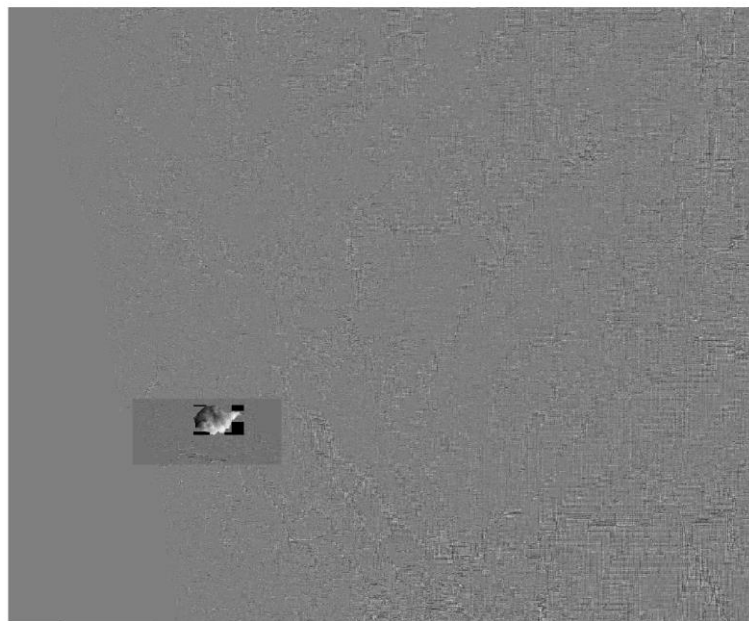
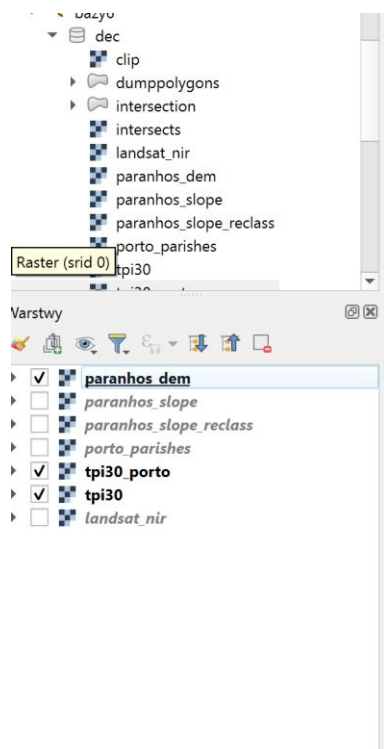
134 create table dec.tpi30_porto as
135 SELECT ST_TPI(a.rast,1) as rast
136 FROM rasters.dem AS a, vectors.porto_parishes AS b
137 WHERE ST_Intersects(a.rast, b.geom) AND b.municipality ilike 'porto'
138

```

Data Output Messages Notifications

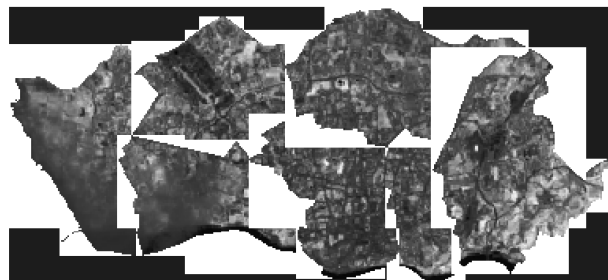
SELECT 25

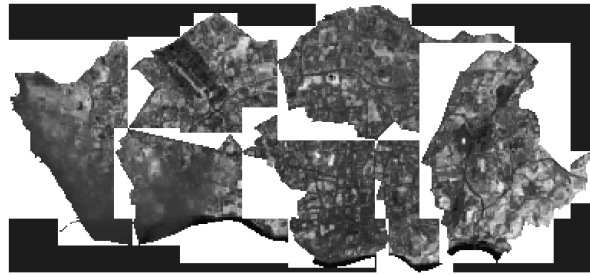
Query returned successfully in 3 secs 388 msec.



5.

Algebra map





6.

Eksport danych

Porto_ndvi wyeksportowane przez gdal_translate (obraz QGIS)

