
Catálogo nacional de estaciones hidroclimatológicas del IDEAM - Colombia

Ejecutado en: 2021-12-15 11:14:53.296016
Data summary for ./Data/CNE_IDEAM_20211215.xls
Url: http://bart.ideam.gov.co/cneideam/CNE_IDEAM.xls
Stations file by: Instituto de Hidrología, Meteorología y Estudios Ambientales
<http://www.ideam.gov.co/web/atencion-y-participacion-ciudadana/condiciones-y-terminos-de-uso-de-la-informacion>
Dataframe type: <class 'pandas.core.frame.DataFrame'>
File downloaded and updated = No
Stations: 4492
Attributes: 20
Encuentra este script en <https://github.com/rcfdtools/R.GISPython/tree/main/CNEStationStatistic>
Cláusulas y condiciones de uso en <https://github.com/rcfdtools/R.GISPython/wiki/License>
Créditos: r.cfdtools@gmail.com

Attributes an types founded

```
Index(['OBJECTID', 'CODIGO', 'nombre', 'CATEGORIA', 'TECNOLOGIA', 'ESTADO',  
      'FECHA_INSTALACION', 'altitud', 'latitud', 'longitud', 'DEPARTAMENTO',  
      'MUNICIPIO', 'AREA_OPERATIVA', 'AREA_HIDROGRAFICA', 'ZONA_HIDROGRAFICA',  
      'observacion', 'CORRIENTE', 'FECHA_SUSPENSION', 'SUBZONA_HIDROGRAFICA',  
      'ENTIDAD'],  
      dtype='object')
```

Types:

| | |
|----------------------|----------------|
| OBJECTID | int64 |
| CODIGO | int64 |
| nombre | object |
| CATEGORIA | object |
| TECNOLOGIA | object |
| ESTADO | object |
| FECHA_INSTALACION | datetime64[ns] |
| altitud | int64 |
| latitud | float64 |
| longitud | float64 |
| DEPARTAMENTO | object |
| MUNICIPIO | object |
| AREA_OPERATIVA | object |
| AREA_HIDROGRAFICA | object |
| ZONA_HIDROGRAFICA | object |
| observacion | object |
| CORRIENTE | object |
| FECHA_SUSPENSION | datetime64[ns] |
| SUBZONA_HIDROGRAFICA | object |
| ENTIDAD | object |

dtype: object

General dataframe information:
<class 'pandas.core.frame.DataFrame'>

RangeIndex: 4492 entries, 0 to 4491

Data columns (total 20 columns):

| # | Column | Non-Null Count | Dtype |
|----|----------------------|----------------|----------------|
| 0 | OBJECTID | 4492 non-null | int64 |
| 1 | CODIGO | 4492 non-null | int64 |
| 2 | nombre | 4492 non-null | object |
| 3 | CATEGORIA | 4492 non-null | object |
| 4 | TECNOLOGIA | 4492 non-null | object |
| 5 | ESTADO | 4492 non-null | object |
| 6 | FECHA_INSTALACION | 4489 non-null | datetime64[ns] |
| 7 | altitud | 4492 non-null | int64 |
| 8 | latitud | 4492 non-null | float64 |
| 9 | longitud | 4492 non-null | float64 |
| 10 | DEPARTAMENTO | 4492 non-null | object |
| 11 | MUNICIPIO | 4492 non-null | object |
| 12 | AREA_OPERATIVA | 4492 non-null | object |
| 13 | AREA_HIDROGRAFICA | 4492 non-null | object |
| 14 | ZONA_HIDROGRAFICA | 4492 non-null | object |
| 15 | observacion | 1039 non-null | object |
| 16 | CORRIENTE | 4492 non-null | object |
| 17 | FECHA_SUSPENSION | 1832 non-null | datetime64[ns] |
| 18 | SUBZONA_HIDROGRAFICA | 4492 non-null | object |
| 19 | ENTIDAD | 4492 non-null | object |

dtypes: datetime64[ns](2), float64(2), int64(3), object(13)

memory usage: 702.0+ KB

None

General statistics

Basic dataframe statistics:

| | OBJECTID | CODIGO | altitud | latitud | longitud |
|-------|-------------|--------------|-------------|-------------|-------------|
| count | 4492.000000 | 4.492000e+03 | 4492.000000 | 4492.000000 | 4492.000000 |
| mean | 2246.500000 | 1.621831e+08 | 890.202805 | 5.989762 | -74.558195 |
| std | 1296.873034 | 6.253406e+08 | 1004.512120 | 2.954317 | 1.724950 |
| min | 1.000000 | 1.101001e+07 | 0.000000 | -4.222528 | -81.730969 |
| 25% | 1123.750000 | 2.120576e+07 | 90.000000 | 4.082903 | -75.686951 |
| 50% | 2246.500000 | 2.502716e+07 | 400.000000 | 5.690556 | -74.731100 |
| 75% | 3369.250000 | 3.501501e+07 | 1560.250000 | 8.137500 | -73.360124 |
| max | 4492.000000 | 5.601500e+09 | 5027.000000 | 15.797500 | -67.466667 |

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/BasicDataframeStatistic20211215.csv>

Category - Count:

| | |
|------------------------|------|
| Pluviométrica | 1702 |
| Limnimétrica | 873 |
| Limnigráfica | 573 |
| Climática Ordinaria | 506 |
| Climática Principal | 355 |
| Pluviográfica | 192 |
| Meteorológica Especial | 148 |
| Agrometeorológica | 74 |

| | |
|----------------------|----|
| Sinóptica Principal | 33 |
| Radio Sonda | 14 |
| Mareográfica | 11 |
| Sinóptica Secundaria | 11 |

Name: CATEGORIA, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/CategoryStatistic20211215.csv>

Category - Normalize percentage rate:

| | |
|------------------------|--------|
| Pluviométrica | 0.3789 |
| Limnimétrica | 0.1943 |
| Limnigráfica | 0.1276 |
| Climática Ordinaria | 0.1126 |
| Climática Principal | 0.0790 |
| Pluviográfica | 0.0427 |
| Meteorológica Especial | 0.0329 |
| Agrometeorológica | 0.0165 |
| Sinóptica Principal | 0.0073 |
| Radio Sonda | 0.0031 |
| Mareográfica | 0.0024 |
| Sinóptica Secundaria | 0.0024 |

Name: CATEGORIA, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/CategoryStatisticNormalize20211215.csv>

Technology - Count:

| | |
|---------------------------|------|
| Convencional | 3757 |
| Automática con Telemetría | 692 |
| Automática sin Telemetría | 43 |

Name: TECNOLOGIA, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/TechnologyStatistic20211215.csv>

Technology - Normalize percentage rate:

| | |
|---------------------------|--------|
| Convencional | 0.8364 |
| Automática con Telemetría | 0.1541 |
| Automática sin Telemetría | 0.0096 |

Name: TECNOLOGIA, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/TechnologyStatisticNormalize20211215.csv>

Status - Count:

| | |
|------------------|------|
| Activa | 2643 |
| Suspendida | 1832 |
| En Mantenimiento | 17 |

Name: ESTADO, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/StatusStatistic20211215.csv>

Status - Normalize percentage rate:

| | |
|------------------|--------|
| Activa | 0.5884 |
| Suspendida | 0.4078 |
| En Mantenimiento | 0.0038 |

Name: ESTADO, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/>

BasicTable/StatusStatisticNormalize20211215.csv

Geographical state location- Count:

| | |
|--|-----|
| Antioquia | 394 |
| Boyacá | 318 |
| Santander | 293 |
| Tolima | 289 |
| Bolívar | 254 |
| Cundinamarca | 247 |
| Huila | 241 |
| Norte de Santander | 224 |
| Cauca | 221 |
| Córdoba | 182 |
| Cesar | 173 |
| La Guajira | 171 |
| Meta | 154 |
| Magdalena | 150 |
| Valle del Cauca | 148 |
| Nariño | 129 |
| Chocó | 108 |
| Caldas | 91 |
| Risaralda | 80 |
| Putumayo | 75 |
| Sucre | 74 |
| Casanare | 71 |
| Atlántico | 69 |
| Bogotá | 67 |
| Caquetá | 53 |
| Amazonas | 52 |
| Vichada | 49 |
| Arauca | 35 |
| Archipiélago de San Andres, Providencia y Santa Catalina | 21 |
| Vaupés | 18 |
| Guaviare | 17 |
| Quindío | 12 |
| Guainía | 12 |

Name: DEPARTAMENTO, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoStateStatistic20211215.csv>

Geographical state location - Normalize percentage rate:

| | |
|--------------------|--------|
| Antioquia | 0.0877 |
| Boyacá | 0.0708 |
| Santander | 0.0652 |
| Tolima | 0.0643 |
| Bolívar | 0.0565 |
| Cundinamarca | 0.0550 |
| Huila | 0.0537 |
| Norte de Santander | 0.0499 |
| Cauca | 0.0492 |
| Córdoba | 0.0405 |
| Cesar | 0.0385 |
| La Guajira | 0.0381 |
| Meta | 0.0343 |
| Magdalena | 0.0334 |

| | |
|--|--------|
| Valle del Cauca | 0.0329 |
| Nariño | 0.0287 |
| Chocó | 0.0240 |
| Caldas | 0.0203 |
| Risaralda | 0.0178 |
| Putumayo | 0.0167 |
| Sucre | 0.0165 |
| Casanare | 0.0158 |
| Atlántico | 0.0154 |
| Bogotá | 0.0149 |
| Caquetá | 0.0118 |
| Amazonas | 0.0116 |
| Vichada | 0.0109 |
| Arauca | 0.0078 |
| Archipiélago de San Andres, Providencia y Santa Catalina | 0.0047 |
| Vaupés | 0.0040 |
| Guaviare | 0.0038 |
| Quindío | 0.0027 |
| Guainía | 0.0027 |

Name: DEPARTAMENTO, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoStateStatisticNormalize20211215.csv>

Geographical operative area - Count:

| | |
|--|-----|
| Area Operativa 08 - Santanderes-Arauca | 605 |
| Area Operativa 02 - Atlántico-Bolívar-Sucre | 550 |
| Area Operativa 01 - Antioquia-Chocó | 474 |
| Area Operativa 09 - Cauca-Valle-Caldas | 449 |
| Area Operativa 05 - Magdalena-Cesar-Guajira | 448 |
| Area Operativa 06 - Boyacá-Casanare-Vichada | 381 |
| Area Operativa 04 - Huila-Caquetá | 347 |
| Area Operativa 10 - Tolima | 332 |
| Area Operativa 11 - Cundinamarca-Amazonas-San Andrés | 325 |
| Area Operativa 07 - Nariño-Putumayo | 295 |
| Area Operativa 03 - Meta-Guaviare-Guainía | 286 |

Name: AREA_OPERATIVA, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoOperativeAreaStatistic20211215.csv>

Geographical operative area - Normalize percentage rate:

| | |
|--|--------|
| Area Operativa 08 - Santanderes-Arauca | 0.1347 |
| Area Operativa 02 - Atlántico-Bolívar-Sucre | 0.1224 |
| Area Operativa 01 - Antioquia-Chocó | 0.1055 |
| Area Operativa 09 - Cauca-Valle-Caldas | 0.1000 |
| Area Operativa 05 - Magdalena-Cesar-Guajira | 0.0997 |
| Area Operativa 06 - Boyacá-Casanare-Vichada | 0.0848 |
| Area Operativa 04 - Huila-Caquetá | 0.0772 |
| Area Operativa 10 - Tolima | 0.0739 |
| Area Operativa 11 - Cundinamarca-Amazonas-San Andrés | 0.0724 |
| Area Operativa 07 - Nariño-Putumayo | 0.0657 |
| Area Operativa 03 - Meta-Guaviare-Guainía | 0.0637 |

Name: AREA_OPERATIVA, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoOperativeAreaStatisticNormalize20211215.csv>

Hydrographic area - Count:

| | |
|-----------------|------|
| Magdalena Cauca | 2672 |
| Caribe | 756 |
| Orinoco | 567 |
| Pacifico | 274 |
| Amazonas | 223 |

Name: AREA_HIDROGRAFICA, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoHydroAreaStatistic20211215.csv>

Hydrographic area - Normalize percentage rate:

| | |
|-----------------|--------|
| Magdalena Cauca | 0.5948 |
| Caribe | 0.1683 |
| Orinoco | 0.1262 |
| Pacifico | 0.0610 |
| Amazonas | 0.0496 |

Name: AREA_HIDROGRAFICA, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoHydroAreaStatisticNormalize20211215.csv>

Hydrographic zone - Count:

| | |
|----------------------------------|-----|
| Alto Magdalena | 639 |
| Cauca | 502 |
| Medio Magdalena | 421 |
| Meta | 383 |
| Sogamoso | 315 |
| Bajo Magdalena | 313 |
| Caribe - Guajira | 198 |
| Catatumbo | 197 |
| Cesar | 167 |
| Bajo Magdalena- Cauca -San Jorge | 152 |
| Sinú | 146 |
| Patía | 142 |
| Atrato - Darién | 98 |
| Caribe - Litoral | 96 |
| Caquetá | 94 |
| Nechí | 90 |
| Guaviare | 87 |
| Putumayo | 80 |
| Saldaña | 73 |
| Arauca | 49 |
| Tapaje - Dagua - Directos | 47 |
| San Juan | 43 |
| Mira | 23 |
| Casanare | 21 |
| Islas Caribe | 21 |
| Vaupés | 17 |
| Caguán | 15 |
| Orinoco Directos | 14 |
| Amazonas - Directos | 14 |
| Pacífico - Directos | 11 |
| Baudó - Directos Pacifico | 8 |
| Tomo | 6 |
| Vichada | 4 |
| Inírida | 3 |

```

Yarí 2
Apaporis 1
Name: ZONA_HIDROGRAFICA, dtype: int64
Table >> https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/
BasicTable/GeoHydroZoneStatistic20211215.csv

```

Hydrographic zone - Normalize percentage rate:

| | |
|----------------------------------|--------|
| Alto Magdalena | 0.1423 |
| Cauca | 0.1118 |
| Medio Magdalena | 0.0937 |
| Meta | 0.0853 |
| Sogamoso | 0.0701 |
| Bajo Magdalena | 0.0697 |
| Caribe - Guajira | 0.0441 |
| Catatumbo | 0.0439 |
| Cesar | 0.0372 |
| Bajo Magdalena- Cauca -San Jorge | 0.0338 |
| Sinú | 0.0325 |
| Patía | 0.0316 |
| Atrato - Darién | 0.0218 |
| Caribe - Litoral | 0.0214 |
| Caquetá | 0.0209 |
| Nechí | 0.0200 |
| Guaviare | 0.0194 |
| Putumayo | 0.0178 |
| Saldaña | 0.0163 |
| Arauca | 0.0109 |
| Tapaje - Dagua - Directos | 0.0105 |
| San Juan | 0.0096 |
| Mira | 0.0051 |
| Casanare | 0.0047 |
| Islas Caribe | 0.0047 |
| Vaupes | 0.0038 |
| Caguán | 0.0033 |
| Orinoco Directos | 0.0031 |
| Amazonas - Directos | 0.0031 |
| Pacífico - Directos | 0.0024 |
| Baudó - Directos Pacifico | 0.0018 |
| Tomo | 0.0013 |
| Vichada | 0.0009 |
| Inírida | 0.0007 |
| Yarí | 0.0004 |
| Apaporis | 0.0002 |

```

Name: ZONA_HIDROGRAFICA, dtype: float64

```

```

Table >> https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/
BasicTable/GeoHydroZoneStatisticNormalize20211215.csv

```

Hydrographic subzone - Count:

| | |
|---|-----|
| Río Chicamocha | 159 |
| Río Lebrija y otros directos al Magdalena | 148 |
| Bajo San Jorge - La Mojana | 139 |
| Río Bogotá | 137 |
| Río Suárez | 105 |
| Bajo Sinú | 95 |
| Río Ranchería | 88 |

| | |
|--|----|
| Canal del Dique margen izquierda | 87 |
| Río Zulia | 78 |
| Cga Grande de Santa Marta | 71 |
| Directos Bajo Magdalena entre El Banco y El Plato | 68 |
| Medio Cesar | 67 |
| Río Garagoa | 61 |
| Río Lagunilla y Otros Directos al Magdalena | 55 |
| Río Coello | 53 |
| Río Otún y otros directos al Cauca | 52 |
| Río Nare | 51 |
| Río Algodonal (Alto Catatumbo) | 51 |
| Alto Río Putumayo | 47 |
| Río Fortalecillas y otros | 47 |
| Canal del Dique margen derecho | 46 |
| Río Páez | 43 |
| Río Guayuriba | 41 |
| Río Porce | 41 |
| Río Negro | 40 |
| Río Ariguaní | 39 |
| Río Guavio | 37 |
| Directos Río Cauca entre Río San Juan y Pto Valdivia | 36 |
| Río Carare (Minero) | 36 |
| Río León | 35 |
| Río Sumapaz | 35 |
| Río Guáitara | 34 |
| Río Ariari | 34 |
| Río Patia Alto | 33 |
| Río Pamplonita | 32 |
| Río Juananbú | 32 |
| Alto Caqueta | 32 |
| Río Carraipia - Paraguachon, Directos al Golfo Maracaibo | 31 |
| Río La Vieja | 31 |
| Bajo Cesar | 31 |
| Alto Cesar | 30 |
| Alto Río Cauca | 30 |
| Ríos Pescador - RUT - Chanco - Catarina y Cañaveral | 29 |
| Medio Sinú | 29 |
| Río Chinchiná | 29 |
| Directos Río Cauca entre Río San Juan y Pto Valdia | 27 |
| Alto Magdalena | 27 |
| Río Guatiquía | 26 |
| Río Orteguzaza | 26 |
| Río Fonce | 26 |
| Río Sogamoso | 25 |
| Río Yaguará y Río Iquira | 25 |
| Río Lengupá | 25 |
| Río Piedras - Río Manzanares | 24 |
| Bajo Nechí (md) | 23 |
| Río Cusiana | 23 |
| Río Prado | 23 |
| Directos Caribe - Ay.Sharimahana Alta Guajira | 23 |
| Río Nuevo Presidente - Tres Bocas (Sardinata, Tibu) | 22 |
| Río Sucio | 22 |
| Alto Sinú - Urrá | 22 |
| Río Frío y Otros Directos al Cauca | 22 |

| | |
|--|----|
| Río Cabrera | 22 |
| Río Risaralda | 21 |
| Río Caqueta Bajo | 21 |
| Directos al Magdalena (Brazo Morales) | 21 |
| Río San Bartolo y otros directos al Magdalena Medio | 21 |
| Río Totare | 20 |
| Quebrada El Carmen y Otros Directos al Magdalena | 20 |
| Río Baché | 20 |
| Río Metica (Guamal - Humadea) | 20 |
| Río Guachicono | 20 |
| Lago de Tota | 19 |
| Arroyos Directos al Caribe | 19 |
| Alto Nechí | 19 |
| Directos al Bajo Magdalena entre Calamar y desembocadura | 19 |
| Directos Caribe Golfo de Morrosquillo | 18 |
| Río San Juan | 18 |
| Río Aipe, Río Chenche y otros directos al Magdalena | 18 |
| Río Opón | 17 |
| Río Chitaga | 17 |
| Río Gualí | 17 |
| Río Palo | 17 |
| Bajo Vaupés | 16 |
| Río Neiva | 16 |
| Río Arma | 16 |
| Río San Juan del Micay | 16 |
| Río Cimitarra y otros directos al Magdalena | 16 |
| Río Guachal (Bolo - Fraile y Párraga) | 15 |
| Bajo Saldaña | 15 |
| Ríos Directos al Magdalena (mi) | 15 |
| Río Luisa y otros directos al Magdalena | 15 |
| Río Mira | 15 |
| Medio Guaviare | 15 |
| Río Banadia y otros Directos al Río Arauca | 15 |
| Dagua - Buenaventura - Bahía Málaga | 15 |
| Río Cucuana | 14 |
| Río Mulatos y otros directos al Caribe | 14 |
| Río Taraza - Río Man | 14 |
| Río Tamaná y otros Directos San Juan | 14 |
| Río Casanare | 14 |
| Directos Río Amazonas (mi) | 14 |
| Río Tapias y otros directos al Cauca | 14 |
| Alto Saldaña | 14 |
| Río Cravo Sur | 13 |
| Juncal y otros Ríos directos al Magdalena | 13 |
| Ríos directos Magdalena (md) | 13 |
| Directos al Bajo Magdalena entre El Plato y Calamar | 13 |
| Río Salado y otros directos Cauca | 13 |
| Bajo Guaviare | 12 |
| Río La Miel (Samaná) | 12 |
| Directos Bajo Meta entre ríos Casanare y Orinoco | 12 |
| Directos al Cauca entre Pto Valdivia y Río Nechí | 12 |
| Río Palacé | 12 |
| Ríos Tulua y Morales | 12 |
| San Andres | 12 |
| Directos al Río Meta entre ríos Cusiana y Carare | 11 |

| | |
|---|----|
| Río Quinamayo y otros directos al Cauca | 11 |
| Alto Atrato | 11 |
| Río Suaza | 11 |
| Río Ancho y Otros Directos al caribe | 11 |
| Directos Pacifico Frontera Panamá | 11 |
| Caño Guanápalo y otros directos al Meta | 11 |
| Río Túa y otros directos al Meta | 11 |
| Río Pauto | 10 |
| Río Piendamo | 10 |
| Río Guachaca - Mendiguaca y Buritaca | 10 |
| Río Seco y otros Directos al Magdalena | 10 |
| Río Quito | 10 |
| Ríos Calima y Bajo San Juan | 10 |
| Directos al Magdalena Medio entre ríos Negro | 10 |
| Alto Guaviare | 10 |
| Río Upía | 10 |
| Alto San Jorge | 10 |
| Río Humea | 9 |
| Río Atá | 9 |
| Directos Magdalena entre ríos Cabrera y Sumapaz | 9 |
| Río Putumayo Bajo | 9 |
| Río Guayas | 9 |
| Ríos Chemicuica y Corozal | 9 |
| Río Guarínó | 9 |
| Río Guejar | 9 |
| Río Caqueta Medio | 9 |
| Río Timaná y otros directos al Magdalena | 9 |
| Río Amoyá | 8 |
| Ríos Claro y Jamundí | 8 |
| Río Patia Medio | 8 |
| Río Murri | 8 |
| Río Tetuán, Río Ortega | 8 |
| Ríos Amaime y Cerrito | 8 |
| Río Putumayo Medio | 8 |
| Providencia | 8 |
| Río Putumayo Directos (mi) | 8 |
| Río Cabi y otros Directos Atrato (md) | 8 |
| Río Manacacias | 8 |
| Río Tarra | 7 |
| Directos al Bajo Nechí (mi) | 7 |
| Río Sipí | 7 |
| Río Ovejas | 7 |
| Río Rosario | 7 |
| Directos Río Arauca (md) | 7 |
| Directos al Río Meta entre ríos Humea y Upia (mi) | 7 |
| Río Telembí | 6 |
| Río Guayabero | 6 |
| Río Pescado | 6 |
| Río Mayo | 6 |
| Río Salaquí y otros directos Bajo Atrato | 6 |
| Río San Juan Alto | 6 |
| Río Tapias | 6 |
| Río Ariporo | 6 |
| Ríos Las Cañas - Los Micos y Obando | 6 |
| Directos Atrato entre ríos Quito y Bojayá (mi) | 6 |

| | |
|---|---|
| Río Tuparro | 6 |
| Río Bugalagrande | 5 |
| Río Paila | 5 |
| Río Cobugón - Río Cobaría | 5 |
| Directos Magdalena entre Ríos Guarinó y La Miel | 5 |
| Río Tolo y otros Directos al Caribe | 5 |
| Directos Magdalena Medio entre ríos La Miel y Nare | 5 |
| Medio Saldaña | 5 |
| Bajo Catatumbo | 5 |
| Río Tanela y otros Directos al Caribe | 5 |
| Río Guapi | 5 |
| Directos Río Metica entre ríos Guayuriba y Yucao | 5 |
| Directos Bajo Cauca - Cga La Raya entre río Nechí | 5 |
| Río Canalete y otros Arroyos Directos al Caribe | 5 |
| Ríos Lili, Melendez y Canaveralajejo | 4 |
| Directos Atrato entre ríos Bebaramá y Murri (md) | 4 |
| Río Andágueda | 4 |
| Directos Orinoco entre ríos Tomo y Meta (mi) | 4 |
| Ríos Cali | 4 |
| Directos al Magdalena entre Ríos Seco y Negro (md) | 4 |
| Río Baudó | 4 |
| Río Docampadó y Directos Pacífico | 4 |
| Río Margua | 4 |
| Directos al Río Meta entre ríos Pauto y Carare | 4 |
| Río Camarones y otros directos Caribe | 4 |
| Río Caguan Bajo | 3 |
| Río Frío | 3 |
| Río Patia Bajo | 3 |
| Río Desbaratado | 3 |
| Río Guacavía | 3 |
| Río Timba | 3 |
| Ríos Guabas,Sabaletas y Sonso | 3 |
| Caño Matavén | 3 |
| Río Caguan Alto | 3 |
| Bajo Vichada | 3 |
| Río Opía | 3 |
| Río Saija | 3 |
| Río Yucao | 3 |
| Ríos Guadalajara y San Pedro | 3 |
| Río Murindó - Directos al Atrato | 3 |
| Río San Juan Medio | 3 |
| Río Igará-Paraná | 2 |
| Río Cará-Paraná | 2 |
| Directos Bajo Atrato entre río Sucio y desembocadura | 2 |
| R._Inirida_(mi),_hasta_bocas_Caño_Bocón,_y_R._Las Viñas | 2 |
| Río Cotuhe | 2 |
| Río San_Miguel | 2 |
| Caño Lioni o Terecay | 2 |
| Alto Río Tomo | 2 |
| Río Melúa | 2 |
| Río Tapaje | 2 |
| Río Bebaramá y otros Directos Atrato (md) | 2 |
| Ríos Cajambre - Mayorquín - Raposo | 2 |
| Río Capoma y otros directos al San Juan | 2 |
| Bajo Río Tomo | 2 |

| | |
|--|---|
| Río Naya - Yurumanguí | 2 |
| Ríos Arroyohondo - Yumbo - Mulalo - Vijes - Yotoco | 2 |
| Río Muco | 1 |
| Río Bojabá | 1 |
| Río Socuavo del Norte y Río Socuavo Sur | 1 |
| Río Querary | 1 |
| Río Inírida Alto | 1 |
| Bajo Río Apaporis | 1 |
| Río Cajón | 1 |
| Directos al Meta entre ríos Cusiana y Cravo Sur | 1 |
| Río San Juan (Frontera Ecuador) | 1 |
| Río Cravo Norte | 1 |
| Río Bojayá | 1 |
| Río Don Diego | 1 |
| Río Timbiquí | 1 |
| Roncador y Quitasueño | 1 |
| Río Mesay | 1 |
| Río Guape | 1 |
| Río Napipí - Río Opogadó | 1 |
| Río Vita | 1 |
| Río del Suroeste y directos Río de Oro | 1 |
| Río Anchicayá | 1 |
| Río Cuñare | 1 |
| Name: SUBZONA_HIDROGRAFICA, dtype: int64 | |
| Table >> https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoHydroSubZoneStatistic20211215.csv | |

Hydrographic subzone - Normalize percentage rate:

| | |
|---|--------|
| Río Chicamocha | 0.0354 |
| Río Lebrija y otros directos al Magdalena | 0.0329 |
| Bajo San Jorge - La Mojana | 0.0309 |
| Río Bogotá | 0.0305 |
| Río Suárez | 0.0234 |
| Bajo Sinú | 0.0211 |
| Río Ranchería | 0.0196 |
| Canal del Dique margen izquierda | 0.0194 |
| Río Zulia | 0.0174 |
| Cga Grande de Santa Marta | 0.0158 |
| Directos Bajo Magdalena entre El Banco y El Plato | 0.0151 |
| Medio Cesar | 0.0149 |
| Río Garagoa | 0.0136 |
| Río Lagunilla y Otros Directos al Magdalena | 0.0122 |
| Río Coello | 0.0118 |
| Río Otún y otros directos al Cauca | 0.0116 |
| Río Nare | 0.0114 |
| Río Algodonal (Alto Catatumbo) | 0.0114 |
| Alto Río Putumayo | 0.0105 |
| Río Fortalecillas y otros | 0.0105 |
| Canal del Dique margen derecho | 0.0102 |
| Río Páez | 0.0096 |
| Río Guayuriba | 0.0091 |
| Río Porce | 0.0091 |
| Río Negro | 0.0089 |
| Río Ariguaní | 0.0087 |
| Río Guavio | 0.0082 |

| | |
|--|--------|
| Directos Río Cauca entre Río San Juan y Pto Valdivia | 0.0080 |
| Río Carare (Minero) | 0.0080 |
| Río León | 0.0078 |
| Río Sumapaz | 0.0078 |
| Río Guáitara | 0.0076 |
| Río Ariari | 0.0076 |
| Río Patia Alto | 0.0073 |
| Río Pamplonita | 0.0071 |
| Río Juananbú | 0.0071 |
| Alto Caqueta | 0.0071 |
| Río Carraipia - Paraguachon, Directos al Golfo Maracaibo | 0.0069 |
| Río La Vieja | 0.0069 |
| Bajo Cesar | 0.0069 |
| Alto Cesar | 0.0067 |
| Alto Río Cauca | 0.0067 |
| Rios Pescador - RUT - Chanco - Catarina y Cañaveral | 0.0065 |
| Medio Sinú | 0.0065 |
| Río Chinchiná | 0.0065 |
| Directos Río Cauca entre Río San Juan y Pto Valdia | 0.0060 |
| Alto Magdalena | 0.0060 |
| Río Guatiquía | 0.0058 |
| Río Orteguzaza | 0.0058 |
| Río Fonce | 0.0058 |
| Río Sogamoso | 0.0056 |
| Río Yaguará y Río Iquira | 0.0056 |
| Río Lengupá | 0.0056 |
| Río Piedras - Río Manzanares | 0.0053 |
| Bajo Nechí (md) | 0.0051 |
| Río Cusiana | 0.0051 |
| Río Prado | 0.0051 |
| Directos Caribe - Ay.Sharimahana Alta Guajira | 0.0051 |
| Río Nuevo Presidente - Tres Bocas (Sardinata, Tibu) | 0.0049 |
| Río Sucio | 0.0049 |
| Alto Sinú - Urrá | 0.0049 |
| Río Frío y Otros Directos al Cauca | 0.0049 |
| Río Cabrera | 0.0049 |
| Río Risaralda | 0.0047 |
| Río Caqueta Bajo | 0.0047 |
| Directos al Magdalena (Brazo Morales) | 0.0047 |
| Río San Bartolo y otros directos al Magdalena Medio | 0.0047 |
| Río Totare | 0.0045 |
| Quebrada El Carmen y Otros Directos al Magdalena | 0.0045 |
| Río Baché | 0.0045 |
| Río Metica (Guamal - Humadea) | 0.0045 |
| Río Guachicono | 0.0045 |
| Lago de Tota | 0.0042 |
| Arroyos Directos al Caribe | 0.0042 |
| Alto Nechí | 0.0042 |
| Directos al Bajo Magdalena entre Calamar y desembocadura | 0.0042 |
| Directos Caribe Golfo de Morrosquillo | 0.0040 |
| Río San Juan | 0.0040 |
| Río Aipe, Río Chenche y otros directos al Magdalena | 0.0040 |
| Río Opón | 0.0038 |
| Río Chitaga | 0.0038 |
| Río Gualí | 0.0038 |

| | |
|---|--------|
| Río Palo | 0.0038 |
| Bajo Vaupés | 0.0036 |
| Río Neiva | 0.0036 |
| Río Arma | 0.0036 |
| Río San Juan del Micay | 0.0036 |
| Río Cimitarra y otros directos al Magdalena | 0.0036 |
| Río Guachal (Bolo - Fraile y Párraga) | 0.0033 |
| Bajo Saldaña | 0.0033 |
| Ríos Directos al Magdalena (mi) | 0.0033 |
| Río Luisa y otros directos al Magdalena | 0.0033 |
| Río Mira | 0.0033 |
| Medio Guaviare | 0.0033 |
| Río Banadia y otros Directos al Río Arauca | 0.0033 |
| Dagua - Buenaventura - Bahía Málaga | 0.0033 |
| Río Cucuana | 0.0031 |
| Río Mulatos y otros directos al Caribe | 0.0031 |
| Río Taraza - Río Man | 0.0031 |
| Río Tamaná y otros Directos San Juan | 0.0031 |
| Río Casanare | 0.0031 |
| Directos Río Amazonas (mi) | 0.0031 |
| Río Tapias y otros directos al Cauca | 0.0031 |
| Alto Saldaña | 0.0031 |
| Río Cravo Sur | 0.0029 |
| Juncal y otros Ríos directos al Magdalena | 0.0029 |
| Ríos directos Magdalena (md) | 0.0029 |
| Directos al Bajo Magdalena entre El Plato y Calamar | 0.0029 |
| Río Salado y otros directos Cauca | 0.0029 |
| Bajo Guaviare | 0.0027 |
| Río La Miel (Samaná) | 0.0027 |
| Directos Bajo Meta entre ríos Casanare y Orinoco | 0.0027 |
| Directos al Cauca entre Pto Valdivia y Río Nechí | 0.0027 |
| Río Palacé | 0.0027 |
| Ríos Tulua y Morales | 0.0027 |
| San Andres | 0.0027 |
| Directos al Río Meta entre ríos Cusiana y Carare | 0.0024 |
| Río Quinamayo y otros directos al Cauca | 0.0024 |
| Alto Atrato | 0.0024 |
| Río Suaza | 0.0024 |
| Río Ancho y Otros Directos al caribe | 0.0024 |
| Directos Pacifico Frontera Panamá | 0.0024 |
| Caño Guanápalo y otros directos al Meta | 0.0024 |
| Río Túa y otros directos al Meta | 0.0024 |
| Río Pauto | 0.0022 |
| Río Piendamo | 0.0022 |
| Río Guachaca - Mendiguaca y Buritaca | 0.0022 |
| Río Seco y otros Directos al Magdalena | 0.0022 |
| Río Quito | 0.0022 |
| Ríos Calima y Bajo San Juan | 0.0022 |
| Directos al Magdalena Medio entre ríos Negro | 0.0022 |
| Alto Guaviare | 0.0022 |
| Río Upía | 0.0022 |
| Alto San Jorge | 0.0022 |
| Río Humea | 0.0020 |
| Río Atá | 0.0020 |
| Directos Magdalena entre ríos Cabrera y Sumapaz | 0.0020 |

| | |
|--|--------|
| Río Putumayo Bajo | 0.0020 |
| Río Guayas | 0.0020 |
| Ríos Chemicuica y Corozal | 0.0020 |
| Río Guarínó | 0.0020 |
| Río Guejar | 0.0020 |
| Río Caqueta Medio | 0.0020 |
| Río Timaná y otros directos al Magdalena | 0.0020 |
| Río Amoyá | 0.0018 |
| Ríos Claro y Jamundí | 0.0018 |
| Río Patia Medio | 0.0018 |
| Río Murri | 0.0018 |
| Río Tetuán, Río Ortega | 0.0018 |
| Ríos Amaime y Cerrito | 0.0018 |
| Río Putumayo Medio | 0.0018 |
| Providencia | 0.0018 |
| Río Putumayo Directos (mi) | 0.0018 |
| Río Cabi y otros Directos Atrato (md) | 0.0018 |
| Río Manacacias | 0.0018 |
| Río Tarra | 0.0016 |
| Directos al Bajo Nechí (mi) | 0.0016 |
| Río Sipí | 0.0016 |
| Río Ovejas | 0.0016 |
| Río Rosario | 0.0016 |
| Directos Río Arauca (md) | 0.0016 |
| Directos al Río Meta entre ríos Humea y Upia (mi) | 0.0016 |
| Río Telembí | 0.0013 |
| Río Guayabero | 0.0013 |
| Río Pescado | 0.0013 |
| Río Mayo | 0.0013 |
| Río Salaquí y otros directos Bajo Atrato | 0.0013 |
| Río San Juan Alto | 0.0013 |
| Río Tapias | 0.0013 |
| Río Ariporo | 0.0013 |
| Ríos Las Cañas - Los Micos y Obando | 0.0013 |
| Directos Atrato entre ríos Quito y Bojayá (mi) | 0.0013 |
| Río Tuparro | 0.0013 |
| Río Bugalagrande | 0.0011 |
| Río Paila | 0.0011 |
| Río Cobugón - Río Cobaría | 0.0011 |
| Directos Magdalena entre Ríos Guarínó y La Miel | 0.0011 |
| Río Tolo y otros Directos al Caribe | 0.0011 |
| Directos Magdalena Medio entre ríos La Miel y Nare | 0.0011 |
| Medio Saldaña | 0.0011 |
| Bajo Catatumbo | 0.0011 |
| Río Tanela y otros Directos al Caribe | 0.0011 |
| Río Guapi | 0.0011 |
| Directos Río Metica entre ríos Guayuriba y Yucao | 0.0011 |
| Directos Bajo Cauca - Cga La Raya entre río Nechí | 0.0011 |
| Río Canalete y otros Arroyos Directos al Caribe | 0.0011 |
| Ríos Lili, Melendez y Canaveralajo | 0.0009 |
| Directos Atrato entre ríos Bebaramá y Murri (md) | 0.0009 |
| Río Andágueda | 0.0009 |
| Directos Orinoco entre ríos Tomo y Meta (mi) | 0.0009 |
| Ríos Cali | 0.0009 |
| Directos al Magdalena entre Ríos Seco y Negro (md) | 0.0009 |

| | |
|---|--------|
| Río Baudó | 0.0009 |
| Río Docampadó y Directos Pacífico | 0.0009 |
| Río Margua | 0.0009 |
| Directos al Río Meta entre ríos Pauto y Carare | 0.0009 |
| Río Camarones y otros directos Caribe | 0.0009 |
| Río Caguan Bajo | 0.0007 |
| Río Frío | 0.0007 |
| Río Patia Bajo | 0.0007 |
| Río Desbaratado | 0.0007 |
| Río Guacavía | 0.0007 |
| Río Timba | 0.0007 |
| Ríos Guabas,Sabaletas y Sonso | 0.0007 |
| Caño Matavén | 0.0007 |
| Río Caguan Alto | 0.0007 |
| Bajo Vichada | 0.0007 |
| Río Opía | 0.0007 |
| Río Saija | 0.0007 |
| Río Yucao | 0.0007 |
| Ríos Guadalajara y San Pedro | 0.0007 |
| Río Murindó - Directos al Atrato | 0.0007 |
| Río San Juan Medio | 0.0007 |
| Río Igará-Paraná | 0.0004 |
| Río Cará-Paraná | 0.0004 |
| Directos Bajo Atrato entre río Sucio y desembocadura | 0.0004 |
| R._Inírida_(mi),_hasta_bocas_Caño_Bocón,_y_R._Las Viñas | 0.0004 |
| Río Cotuhe | 0.0004 |
| Río San_Miguel | 0.0004 |
| Caño Lioni o Terecay | 0.0004 |
| Alto Río Tomo | 0.0004 |
| Río Melúa | 0.0004 |
| Río Tapaje | 0.0004 |
| Río Bebaramá y otros Directos Atrato (md) | 0.0004 |
| Ríos Cajambre - Mayorquín - Raposo | 0.0004 |
| Río Capoma y otros directos al San Juan | 0.0004 |
| Bajo Río Tomo | 0.0004 |
| Río Naya - Yurumanguí | 0.0004 |
| Ríos Arroyohondo - Yumbo - Mulalo - Vijes - Yotoco | 0.0004 |
| Río Muco | 0.0002 |
| Río Bojabá | 0.0002 |
| Río Socuavo del Norte y Río Socuavo Sur | 0.0002 |
| Río Querary | 0.0002 |
| Río Inírida Alto | 0.0002 |
| Bajo Río Apaporis | 0.0002 |
| Río Cajón | 0.0002 |
| Directos al Meta entre ríos Cusiana y Cravo Sur | 0.0002 |
| Río San Juan (Frontera Ecuador) | 0.0002 |
| Río Cravo Norte | 0.0002 |
| Río Bojayá | 0.0002 |
| Río Don Diego | 0.0002 |
| Río Timbiquí | 0.0002 |
| Roncador y Quitasueño | 0.0002 |
| Río Mesay | 0.0002 |
| Río Guape | 0.0002 |
| Río Napipí - Río Opogadó | 0.0002 |
| Río Vita | 0.0002 |

Río del Suroeste y directos Río de Oro

0.0002

Río Anchicayá

0.0002

Río Cuñare

0.0002

Name: SUBZONA_HIDROGRAFICA, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/GeoHydroSubZoneStatisticNormalize20211215.csv>

Installation year - Count:

| | |
|--------|-----|
| 1900.0 | 1 |
| 1915.0 | 1 |
| 1922.0 | 3 |
| 1924.0 | 1 |
| 1928.0 | 1 |
| 1929.0 | 1 |
| 1930.0 | 2 |
| 1931.0 | 10 |
| 1932.0 | 6 |
| 1933.0 | 1 |
| 1934.0 | 7 |
| 1936.0 | 3 |
| 1937.0 | 4 |
| 1939.0 | 1 |
| 1940.0 | 7 |
| 1941.0 | 4 |
| 1942.0 | 2 |
| 1943.0 | 1 |
| 1944.0 | 3 |
| 1945.0 | 5 |
| 1946.0 | 14 |
| 1947.0 | 3 |
| 1948.0 | 5 |
| 1949.0 | 1 |
| 1950.0 | 2 |
| 1951.0 | 5 |
| 1952.0 | 8 |
| 1953.0 | 11 |
| 1954.0 | 9 |
| 1955.0 | 13 |
| 1956.0 | 12 |
| 1957.0 | 22 |
| 1958.0 | 117 |
| 1959.0 | 64 |
| 1960.0 | 39 |
| 1961.0 | 26 |
| 1962.0 | 43 |
| 1963.0 | 106 |
| 1964.0 | 72 |
| 1965.0 | 81 |
| 1966.0 | 77 |
| 1967.0 | 94 |
| 1968.0 | 107 |
| 1969.0 | 72 |
| 1970.0 | 158 |
| 1971.0 | 250 |
| 1972.0 | 173 |

| | |
|--------|-----|
| 1973.0 | 213 |
| 1974.0 | 242 |
| 1975.0 | 110 |
| 1976.0 | 92 |
| 1977.0 | 86 |
| 1978.0 | 124 |
| 1979.0 | 164 |
| 1980.0 | 157 |
| 1981.0 | 75 |
| 1982.0 | 40 |
| 1983.0 | 175 |
| 1984.0 | 152 |
| 1985.0 | 71 |
| 1986.0 | 112 |
| 1987.0 | 60 |
| 1988.0 | 28 |
| 1989.0 | 40 |
| 1990.0 | 65 |
| 1991.0 | 26 |
| 1992.0 | 42 |
| 1993.0 | 30 |
| 1994.0 | 33 |
| 1995.0 | 23 |
| 1996.0 | 13 |
| 1997.0 | 31 |
| 1998.0 | 4 |
| 1999.0 | 17 |
| 2000.0 | 6 |
| 2001.0 | 14 |
| 2002.0 | 7 |
| 2003.0 | 7 |
| 2004.0 | 59 |
| 2005.0 | 99 |
| 2006.0 | 21 |
| 2007.0 | 29 |
| 2008.0 | 19 |
| 2009.0 | 12 |
| 2010.0 | 14 |
| 2011.0 | 9 |
| 2012.0 | 6 |
| 2013.0 | 12 |
| 2014.0 | 45 |
| 2015.0 | 19 |
| 2016.0 | 43 |
| 2017.0 | 100 |
| 2018.0 | 64 |
| 2019.0 | 24 |
| 2020.0 | 4 |
| 2021.0 | 3 |

Name: FECHA_INSTALACION, dtype: int64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/InstallationYearStatistic20211215.csv>

Installation year - Normalize percentage rate:

| | |
|--------|-----|
| 1900.0 | 0.0 |
|--------|-----|

| | |
|--------|-----|
| 1915.0 | 0.0 |
| 1922.0 | 0.0 |
| 1924.0 | 0.0 |
| 1928.0 | 0.0 |
| 1929.0 | 0.0 |
| 1930.0 | 0.0 |
| 1931.0 | 0.0 |
| 1932.0 | 0.0 |
| 1933.0 | 0.0 |
| 1934.0 | 0.0 |
| 1936.0 | 0.0 |
| 1937.0 | 0.0 |
| 1939.0 | 0.0 |
| 1940.0 | 0.0 |
| 1941.0 | 0.0 |
| 1942.0 | 0.0 |
| 1943.0 | 0.0 |
| 1944.0 | 0.0 |
| 1945.0 | 0.0 |
| 1946.0 | 0.0 |
| 1947.0 | 0.0 |
| 1948.0 | 0.0 |
| 1949.0 | 0.0 |
| 1950.0 | 0.0 |
| 1951.0 | 0.0 |
| 1952.0 | 0.0 |
| 1953.0 | 0.0 |
| 1954.0 | 0.0 |
| 1955.0 | 0.0 |
| 1956.0 | 0.0 |
| 1957.0 | 0.0 |
| 1958.0 | 0.0 |
| 1959.0 | 0.0 |
| 1960.0 | 0.0 |
| 1961.0 | 0.0 |
| 1962.0 | 0.0 |
| 1963.0 | 0.0 |
| 1964.0 | 0.0 |
| 1965.0 | 0.0 |
| 1966.0 | 0.0 |
| 1967.0 | 0.0 |
| 1968.0 | 0.0 |
| 1969.0 | 0.0 |
| 1970.0 | 0.0 |
| 1971.0 | 0.0 |
| 1972.0 | 0.0 |
| 1973.0 | 0.0 |
| 1974.0 | 0.0 |
| 1975.0 | 0.0 |
| 1976.0 | 0.0 |
| 1977.0 | 0.0 |
| 1978.0 | 0.0 |
| 1979.0 | 0.0 |
| 1980.0 | 0.0 |
| 1981.0 | 0.0 |

```

1982.0    0.0
1983.0    0.0
1984.0    0.0
1985.0    0.0
1986.0    0.0
1987.0    0.0
1988.0    0.0
1989.0    0.0
1990.0    0.0
1991.0    0.0
1992.0    0.0
1993.0    0.0
1994.0    0.0
1995.0    0.0
1996.0    0.0
1997.0    0.0
1998.0    0.0
1999.0    0.0
2000.0    0.0
2001.0    0.0
2002.0    0.0
2003.0    0.0
2004.0    0.0
2005.0    0.0
2006.0    0.0
2007.0    0.0
2008.0    0.0
2009.0    0.0
2010.0    0.0
2011.0    0.0
2012.0    0.0
2013.0    0.0
2014.0    0.0
2015.0    0.0
2016.0    0.0
2017.0    0.0
2018.0    0.0
2019.0    0.0
2020.0    0.0
2021.0    0.0

```

Name: FECHA_INSTALACION, dtype: float64

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/BasicTable/InstallationYearStatisticNormalize20211215.csv>

Pivot tables and graphs

| ESTADO | Activa | En Mantenimiento | Suspendida |
|---------------------|--------|------------------|------------|
| CATEGORIA | | | |
| Agrometeorológica | 58.0 | 1.0 | 15.0 |
| Climática Ordinaria | 250.0 | 5.0 | 251.0 |
| Climática Principal | 268.0 | 1.0 | 86.0 |

| | | | |
|------------------------|--------|-----|-------|
| Limnigráfica | 413.0 | 4.0 | 156.0 |
| Limnimétrica | 319.0 | 3.0 | 551.0 |
| Mareográfica | 5.0 | 1.0 | 5.0 |
| Meteorológica Especial | 69.0 | NaN | 79.0 |
| Pluviográfica | 107.0 | NaN | 85.0 |
| Pluviométrica | 1110.0 | 1.0 | 591.0 |
| Radio Sonda | 11.0 | NaN | 3.0 |
| Sinóptica Principal | 29.0 | 1.0 | 3.0 |
| Sinóptica Secundaria | 4.0 | NaN | 7.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/CategoryPivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/CategoryPivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | Suspendida |
|---------------------------|--------|------------------|------------|
| TECNOLOGIA | | | |
| Automática con Telemetría | 632.0 | 6.0 | 54.0 |
| Automática sin Telemetría | 34.0 | NaN | 9.0 |
| Convencional | 1977.0 | 11.0 | 1769.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/TechnologyPivot20211215.png>

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/TechnologyPivotPie20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/TechnologyPivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | \ |
|--|--------|------------------|-----|
| DEPARTAMENTO | | | |
| Amazonas | 35.0 | | NaN |
| Antioquia | 222.0 | | NaN |
| Arauca | 17.0 | | NaN |
| Archipiélago de San Andres, Providencia y Santa... | 14.0 | | NaN |
| Atlántico | 34.0 | | NaN |
| Bogotá | 28.0 | | NaN |
| Bolívar | 119.0 | | NaN |
| Boyacá | 214.0 | | 1.0 |
| Caldas | 60.0 | | NaN |
| Caquetá | 32.0 | | 3.0 |
| Casanare | 49.0 | | NaN |
| Cauca | 144.0 | | 1.0 |
| Cesar | 93.0 | | NaN |
| Chocó | 74.0 | | NaN |
| Cundinamarca | 179.0 | | 2.0 |
| Córdoba | 91.0 | | NaN |
| Guainía | 9.0 | | NaN |
| Guaviare | 10.0 | | NaN |
| Huila | 137.0 | | 2.0 |
| La Guajira | 93.0 | | 1.0 |
| Magdalena | 91.0 | | NaN |
| Meta | 88.0 | | 2.0 |
| Nariño | 101.0 | | 1.0 |
| Norte de Santander | 102.0 | | NaN |
| Putumayo | 40.0 | | NaN |

| | | |
|-----------------|-------|-----|
| Quindío | 10.0 | 1.0 |
| Risaralda | 42.0 | NaN |
| Santander | 151.0 | 1.0 |
| Sucre | 50.0 | NaN |
| Tolima | 169.0 | NaN |
| Valle del Cauca | 99.0 | 1.0 |
| Vaupes | 15.0 | NaN |
| Vichada | 31.0 | 1.0 |

ESTADO Suspendeda

DEPARTAMENTO

| | |
|--|-------|
| Amazonas | 17.0 |
| Antioquia | 172.0 |
| Arauca | 18.0 |
| Archipiélago de San Andres, Providencia y Santa... | 7.0 |
| Atlántico | 35.0 |
| Bogotá | 39.0 |
| Bolívar | 135.0 |
| Boyacá | 103.0 |
| Caldas | 31.0 |
| Caquetá | 18.0 |
| Casanare | 22.0 |
| Cauca | 76.0 |
| Cesar | 80.0 |
| Chocó | 34.0 |
| Cundinamarca | 66.0 |
| Córdoba | 91.0 |
| Guainía | 3.0 |
| Guaviare | 7.0 |
| Huila | 102.0 |
| La Guajira | 77.0 |
| Magdalena | 59.0 |
| Meta | 64.0 |
| Nariño | 27.0 |
| Norte de Santander | 122.0 |
| Putumayo | 35.0 |
| Quindío | 1.0 |
| Risaralda | 38.0 |
| Santander | 141.0 |
| Sucre | 24.0 |
| Tolima | 120.0 |
| Valle del Cauca | 48.0 |
| Vaupes | 3.0 |
| Vichada | 17.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/GeoStatePivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/GeoStatePivot20211215.csv>

| | | | |
|---|--------|------------------|---|
| ESTADO | Activa | En Mantenimiento | \ |
| AREA_OPERATIVA | | | |
| Area Operativa 01 - Antioquia-Chocó | 271.0 | NaN | |
| Area Operativa 02 - Atlántico-Bolivar-Sucre | 290.0 | NaN | |
| Area Operativa 03 - Meta-Guaviare-Guainía | 177.0 | 3.0 | |

| | | |
|--|-------|-----|
| Area Operativa 04 - Huila-Caquetá | 202.0 | 5.0 |
| Area Operativa 05 - Magdalena-Cesar-Guajira | 244.0 | 1.0 |
| Area Operativa 06 - Boyacá-Casanare-Vichada | 263.0 | 1.0 |
| Area Operativa 07 - Nariño-Putumayo | 203.0 | 1.0 |
| Area Operativa 08 - Santanderes-Arauca | 291.0 | 1.0 |
| Area Operativa 09 - Cauca-Valle-Caldas | 293.0 | 3.0 |
| Area Operativa 10 - Tolima | 197.0 | NaN |
| Area Operativa 11 - Cundinamarca-Amazonas-San A... | 212.0 | 2.0 |

ESTADO

Suspendida

AREA_OPERATIVA

| | |
|--|-------|
| Area Operativa 01 - Antioquia-Chocó | 203.0 |
| Area Operativa 02 - Atlántico-Bolivar-Sucre | 260.0 |
| Area Operativa 03 - Meta-Guaviare-Guainía | 106.0 |
| Area Operativa 04 - Huila-Caquetá | 140.0 |
| Area Operativa 05 - Magdalena-Cesar-Guajira | 203.0 |
| Area Operativa 06 - Boyacá-Casanare-Vichada | 117.0 |
| Area Operativa 07 - Nariño-Putumayo | 91.0 |
| Area Operativa 08 - Santanderes-Arauca | 313.0 |
| Area Operativa 09 - Cauca-Valle-Caldas | 153.0 |
| Area Operativa 10 - Tolima | 135.0 |
| Area Operativa 11 - Cundinamarca-Amazonas-San A... | 111.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/GeoOperativeAreaPivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/GeoOperativeAreaPivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | Suspendida |
|--------|--------|------------------|------------|
|--------|--------|------------------|------------|

AREA_HIDROGRAFICA

| | | | |
|-----------------|------|---|------|
| Amazonas | 140 | 3 | 80 |
| Caribe | 381 | 1 | 374 |
| Magdalena Cauca | 1551 | 9 | 1112 |
| Orinoco | 367 | 3 | 197 |
| Pacifico | 204 | 1 | 69 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/GeoHydroAreaPivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/GeoHydroAreaPivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | Suspendida |
|--------|--------|------------------|------------|
|--------|--------|------------------|------------|

ZONA_HIDROGRAFICA

| | | | |
|----------------------------------|-------|-----|-------|
| Alto Magdalena | 370.0 | 2.0 | 267.0 |
| Amazonas - Directos | 8.0 | NaN | 6.0 |
| Apaporis | NaN | NaN | 1.0 |
| Arauca | 25.0 | NaN | 24.0 |
| Atrato - Darién | 61.0 | NaN | 37.0 |
| Bajo Magdalena | 169.0 | NaN | 144.0 |
| Bajo Magdalena- Cauca -San Jorge | 93.0 | NaN | 59.0 |
| Baudó - Directos Pacifico | 4.0 | NaN | 4.0 |
| Caguán | 8.0 | 1.0 | 6.0 |
| Caquetá | 61.0 | 2.0 | 31.0 |
| Caribe - Guajira | 107.0 | 1.0 | 90.0 |
| Caribe - Litoral | 58.0 | NaN | 38.0 |

| | | | |
|---------------------------|-------|-----|-------|
| Casanare | 17.0 | NaN | 4.0 |
| Catatumbo | 85.0 | NaN | 112.0 |
| Cauca | 306.0 | 3.0 | 193.0 |
| Cesar | 88.0 | NaN | 79.0 |
| Guaviare | 51.0 | NaN | 36.0 |
| Inírida | 3.0 | NaN | NaN |
| Islas Caribe | 14.0 | NaN | 7.0 |
| Medio Magdalena | 221.0 | 3.0 | 197.0 |
| Meta | 257.0 | 2.0 | 124.0 |
| Mira | 16.0 | NaN | 7.0 |
| Nechí | 52.0 | NaN | 38.0 |
| Orinoco Directos | 7.0 | 1.0 | 6.0 |
| Pacífico - Directos | 7.0 | NaN | 4.0 |
| Patía | 110.0 | 1.0 | 31.0 |
| Putumayo | 47.0 | NaN | 33.0 |
| Saldaña | 48.0 | NaN | 25.0 |
| San Juan | 33.0 | NaN | 10.0 |
| Sinú | 56.0 | NaN | 90.0 |
| Sogamoso | 204.0 | 1.0 | 110.0 |
| Tapaje - Dagua - Directos | 34.0 | NaN | 13.0 |
| Tomo | 4.0 | NaN | 2.0 |
| Vaupés | 15.0 | NaN | 2.0 |
| Vichada | 3.0 | NaN | 1.0 |
| Yarí | 1.0 | NaN | 1.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/GeoHydroZonePivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/GeoHydroZonePivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | \ |
|----------------------------|--------|------------------|---|
| SUBZONA_HIDROGRAFICA | | | |
| Alto Atrato | 5.0 | NaN | |
| Alto Caqueta | 20.0 | NaN | |
| Alto Cesar | 12.0 | NaN | |
| Alto Guaviare | 5.0 | NaN | |
| Alto Magdalena | 22.0 | NaN | |
| Alto Nechí | 10.0 | NaN | |
| Alto Río Cauca | 19.0 | NaN | |
| Alto Río Putumayo | 24.0 | NaN | |
| Alto Río Tomo | 1.0 | NaN | |
| Alto Saldaña | 8.0 | NaN | |
| Alto San Jorge | 9.0 | NaN | |
| Alto Sinú - Urrá | NaN | NaN | |
| Arroyos Directos al Caribe | 14.0 | NaN | |
| Bajo Catatumbo | 3.0 | NaN | |
| Bajo Cesar | 24.0 | NaN | |
| Bajo Guaviare | 9.0 | NaN | |
| Bajo Nechí (md) | 8.0 | NaN | |
| Bajo Río Apaporis | NaN | NaN | |
| Bajo Río Tomo | 2.0 | NaN | |
| Bajo Saldaña | 7.0 | NaN | |
| Bajo San Jorge - La Mojana | 81.0 | NaN | |
| Bajo Sinú | 43.0 | NaN | |
| Bajo Vaupés | 14.0 | NaN | |

| | | |
|--|------|-----|
| Bajo Vichada | 2.0 | NaN |
| Canal del Dique margen derecho | 21.0 | NaN |
| Canal del Dique margen izquierda | 39.0 | NaN |
| Caño Guanápalo y otros directos al Meta | 6.0 | NaN |
| Caño Lioni o Terecay | 1.0 | NaN |
| Caño Matavén | 2.0 | NaN |
| Cga Grande de Santa Marta | 40.0 | NaN |
| Dagua - Buenaventura - Bahia Málaga | 12.0 | NaN |
| Directos Atrato entre ríos Bebaramá y Murri (md) | 3.0 | NaN |
| Directos Atrato entre ríos Quito y Bojayá (mi) | 5.0 | NaN |
| Directos Bajo Atrato entre río Sucio y desemboc... | 1.0 | NaN |
| Directos Bajo Cauca - Cga La Raya entre río Nechí | 4.0 | NaN |
| Directos Bajo Magdalena entre El Banco y El Plato | 39.0 | NaN |
| Directos Bajo Meta entre ríos Casanare y Orinoco | 11.0 | NaN |
| Directos Caribe - Ay.Sharimahana Alta Guajira | 12.0 | 1.0 |
| Directos Caribe Golfo de Morrosquillo | 12.0 | NaN |
| Directos Magdalena Medio entre ríos La Miel y Nare | 3.0 | NaN |
| Directos Magdalena entre Ríos Guarinó y La Miel | 1.0 | NaN |
| Directos Magdalena entre ríos Cabrera y Sumapaz | 5.0 | NaN |
| Directos Orinoco entre ríos Tomo y Meta (mi) | 1.0 | 1.0 |
| Directos Pacifico Frontera Panamá | 7.0 | NaN |
| Directos Rio Metica entre ríos Guayuriba y Yucao | 4.0 | NaN |
| Directos Río Amazonas (mi) | 8.0 | NaN |
| Directos Río Arauca (md) | 4.0 | NaN |
| Directos Río Cauca entre Río San Juan y Pto V... | 19.0 | NaN |
| Directos Río Cauca entre Río San Juan y Pto Valdia | 15.0 | NaN |
| Directos al Bajo Magdalena entre Calamar y dese... | 13.0 | NaN |
| Directos al Bajo Magdalena entre El Plato y Cal... | 9.0 | NaN |
| Directos al Bajo Nechí (mi) | 6.0 | NaN |
| Directos al Cauca entre Pto Valdivia y Río Nechí | 5.0 | NaN |
| Directos al Magdalena (Brazo Morales) | 9.0 | NaN |
| Directos al Magdalena Medio entre ríos Negro | 5.0 | NaN |
| Directos al Magdalena entre Ríos Seco y Negro (md) | 3.0 | NaN |
| Directos al Meta entre ríos Cusiana y Cravo Sur | NaN | NaN |
| Directos al Río Meta entre ríos Cusiana y Carare | 6.0 | NaN |
| Directos al Río Meta entre ríos Humea y Upia (mi) | 4.0 | NaN |
| Directos al Río Meta entre ríos Pauto y Carare | 2.0 | NaN |
| Juncal y otros Rios directos al Magdalena | 5.0 | NaN |
| Lago de Tota | 16.0 | NaN |
| Medio Cesar | 34.0 | NaN |
| Medio Guaviare | 8.0 | NaN |
| Medio Saldaña | 5.0 | NaN |
| Medio Sinú | 13.0 | NaN |
| Providencia | 6.0 | NaN |
| Quebrada El Carmen y Otros Directos al Magdalena | 11.0 | NaN |
| R._Inírida_(mi),_hasta_bocas_Caño_Bocón,_y_R._L... | 2.0 | NaN |
| Rio Banadia y otros Directos al Río Arauca | 3.0 | NaN |
| Rio Canalete y otros Arroyos Directos al Caribe | 5.0 | NaN |
| Rio Fortalecillas y otros | 21.0 | NaN |
| Rio Guachaca - Mendiguaca y Buritaca | 6.0 | NaN |
| Rio Metica (Guamal - Humadea) | 10.0 | 1.0 |
| Rio Neiva | 8.0 | NaN |
| Rio Salado y otros directos Cauca | 10.0 | 1.0 |
| Rio Tapias y otros directos al Cauca | 7.0 | NaN |
| Rios Arroyohondo - Yumbo - Mulalo - Vijes - Yotoco | 2.0 | NaN |

| | | |
|--|-------|-----|
| Ríos Las Cañas - Los Micos y Obando | 6.0 | NaN |
| Ríos Pescador - RUT - Chanco - Catarina y Cañav... | 8.0 | NaN |
| Río San Bartolo y otros directos al Magdalena M... | 13.0 | NaN |
| Roncador y Quitasueño | NaN | NaN |
| Río Piedras - Río Manzanares | 12.0 | NaN |
| Río Aipe, Río Chenche y otros directos al Magda... | 14.0 | NaN |
| Río Algodonal (Alto Catatumbo) | 18.0 | NaN |
| Río Amoyá | 5.0 | NaN |
| Río Anchicayá | 1.0 | NaN |
| Río Ancho y Otros Directos al caribe | 6.0 | NaN |
| Río Andágueda | 4.0 | NaN |
| Río Ariari | 15.0 | NaN |
| Río Ariguaní | 18.0 | NaN |
| Río Ariporo | 6.0 | NaN |
| Río Arma | 14.0 | NaN |
| Río Atá | 8.0 | NaN |
| Río Baché | 9.0 | 1.0 |
| Río Baudó | 3.0 | NaN |
| Río Bebaramá y otros Directos Atrato (md) | 2.0 | NaN |
| Río Bogotá | 79.0 | NaN |
| Río Bojabá | NaN | NaN |
| Río Bojayá | NaN | NaN |
| Río Bugalagrande | 5.0 | NaN |
| Río Cabi y otros Directos Atrato (md) | 7.0 | NaN |
| Río Cabrera | 14.0 | NaN |
| Río Caguan Alto | 3.0 | NaN |
| Río Caguan Bajo | 2.0 | NaN |
| Río Cajón | 1.0 | NaN |
| Río Camarones y otros directos Caribe | 2.0 | NaN |
| Río Capoma y otros directos al San Juan | 1.0 | NaN |
| Río Caqueta Bajo | 13.0 | 1.0 |
| Río Caqueta Medio | 7.0 | NaN |
| Río Carare (Minero) | 23.0 | NaN |
| Río Carraipia - Paraguachon, Directos al Golfo ... | 15.0 | NaN |
| Río Cará-Paraná | 1.0 | NaN |
| Río Casanare | 10.0 | NaN |
| Río Chicamocha | 114.0 | 1.0 |
| Río Chinchiná | 23.0 | NaN |
| Río Chitaga | 11.0 | NaN |
| Río Cimitarra y otros directos al Magdalena | 3.0 | NaN |
| Río Cobugón - Río Cobaría | 3.0 | NaN |
| Río Coello | 31.0 | NaN |
| Río Cotuhe | 2.0 | NaN |
| Río Cravo Norte | 1.0 | NaN |
| Río Cravo Sur | 10.0 | NaN |
| Río Cusiana | 16.0 | NaN |
| Río Cuñare | 1.0 | NaN |
| Río Desbaratado | 2.0 | NaN |
| Río Docampadó y Directos Pacífico | 1.0 | NaN |
| Río Don Diego | NaN | NaN |
| Río Fonce | 18.0 | NaN |
| Río Frío | 2.0 | NaN |
| Río Frío y Otros Directos al Cauca | 11.0 | NaN |
| Río Garagoa | 38.0 | NaN |
| Río Guacavía | 3.0 | NaN |

| | | |
|--|------|-----|
| Río Guachal (Bolo - Fraile y Párraga) | 10.0 | NaN |
| Río Guachicono | 16.0 | NaN |
| Río Gualí | 8.0 | NaN |
| Río Guape | 1.0 | NaN |
| Río Guapi | 3.0 | NaN |
| Río Guarínó | 8.0 | NaN |
| Río Guatiquía | 18.0 | NaN |
| Río Guavio | 25.0 | NaN |
| Río Guayabero | 4.0 | NaN |
| Río Guayas | 3.0 | 1.0 |
| Río Guayuriba | 30.0 | NaN |
| Río Guejar | 9.0 | NaN |
| Río Guáitara | 29.0 | NaN |
| Río Humea | 4.0 | NaN |
| Río Igará-Paraná | 2.0 | NaN |
| Río Inírida Alto | 1.0 | NaN |
| Río Juananbú | 25.0 | NaN |
| Río La Miel (Samaná) | 9.0 | NaN |
| Río La Vieja | 23.0 | 1.0 |
| Río Lagunilla y Otros Directos al Magdalena | 23.0 | NaN |
| Río Lebrija y otros directos al Magdalena | 61.0 | 1.0 |
| Río Lengupá | 19.0 | NaN |
| Río León | 17.0 | NaN |
| Río Luisa y otros directos al Magdalena | 9.0 | NaN |
| Río Manacacias | 4.0 | NaN |
| Río Margua | 4.0 | NaN |
| Río Mayo | 3.0 | NaN |
| Río Melúa | NaN | 1.0 |
| Río Mesay | NaN | NaN |
| Río Mira | 11.0 | NaN |
| Río Muco | 1.0 | NaN |
| Río Mulatos y otros directos al Caribe | 7.0 | NaN |
| Río Murindó - Directos al Atrato | NaN | NaN |
| Río Murri | 4.0 | NaN |
| Río Napipí - Río Opogadó | 1.0 | NaN |
| Río Nare | 31.0 | NaN |
| Río Naya - Yurumanguí | 2.0 | NaN |
| Río Negro | 26.0 | 2.0 |
| Río Nuevo Presidente - Tres Bocas (Sardinata, T... | 13.0 | NaN |
| Río Opía | 3.0 | NaN |
| Río Opón | 11.0 | NaN |
| Río Orteguzaza | 17.0 | 1.0 |
| Río Otún y otros directos al Cauca | 25.0 | NaN |
| Río Ovejas | 6.0 | NaN |
| Río Paila | 5.0 | NaN |
| Río Palacé | 9.0 | NaN |
| Río Palo | 7.0 | NaN |
| Río Pamplonita | 21.0 | NaN |
| Río Patia Alto | 24.0 | NaN |
| Río Patia Bajo | 3.0 | NaN |
| Río Patia Medio | 5.0 | NaN |
| Río Pauto | 9.0 | NaN |
| Río Pescado | 4.0 | NaN |
| Río Piendamo | 6.0 | NaN |
| Río Porce | 28.0 | NaN |

| | | |
|--|------|-----|
| Río Prado | 17.0 | NaN |
| Río Putumayo Bajo | 6.0 | NaN |
| Río Putumayo Directos (mi) | 6.0 | NaN |
| Río Putumayo Medio | 4.0 | NaN |
| Río Páez | 27.0 | NaN |
| Río Querary | 1.0 | NaN |
| Río Quinamayo y otros directos al Cauca | 9.0 | NaN |
| Río Quito | 9.0 | NaN |
| Río Ranchería | 52.0 | NaN |
| Río Risaralda | 14.0 | NaN |
| Río Rosario | 4.0 | NaN |
| Río Saija | 2.0 | NaN |
| Río Salaquí y otros directos Bajo Atrato | 1.0 | NaN |
| Río San Juan | 10.0 | NaN |
| Río San Juan (Frontera Ecuador) | 1.0 | NaN |
| Río San Juan Alto | 5.0 | NaN |
| Río San Juan Medio | 2.0 | NaN |
| Río San Juan del Micay | 9.0 | NaN |
| Río San_Miguel | 2.0 | NaN |
| Río Seco y otros Directos al Magdalena | 9.0 | NaN |
| Río Sipí | 5.0 | NaN |
| Río Socuavo del Norte y Río Socuavo Sur | 1.0 | NaN |
| Río Sogamoso | 12.0 | NaN |
| Río Suaza | 6.0 | NaN |
| Río Sucio | 13.0 | NaN |
| Río Sumapaz | 23.0 | NaN |
| Río Suárez | 60.0 | NaN |
| Río Tamaná y otros Directos San Juan | 10.0 | NaN |
| Río Tanela y otros Directos al Caribe | 2.0 | NaN |
| Río Tapaje | 2.0 | NaN |
| Río Tapias | 2.0 | NaN |
| Río Taraza - Río Man | 7.0 | NaN |
| Río Tarra | 2.0 | NaN |
| Río Telembí | 5.0 | 1.0 |
| Río Tetuán, Río Ortega | 7.0 | NaN |
| Río Timaná y otros directos al Magdalena | 5.0 | NaN |
| Río Timba | 2.0 | NaN |
| Río Timbiquí | 1.0 | NaN |
| Río Tolo y otros Directos al Caribe | 4.0 | NaN |
| Río Totare | 10.0 | NaN |
| Río Tuparro | 4.0 | NaN |
| Río Túa y otros directos al Meta | 9.0 | NaN |
| Río Upía | 6.0 | NaN |
| Río Vita | NaN | NaN |
| Río Yaguará y Río Iquira | 12.0 | 1.0 |
| Río Yucao | 3.0 | NaN |
| Río Zulia | 27.0 | NaN |
| Río del Suroeste y directos Río de Oro | NaN | NaN |
| Ríos Amaime y Cerrito | 6.0 | NaN |
| Ríos Cajambre - Mayorquín - Raposo | 2.0 | NaN |
| Ríos Cali | 3.0 | NaN |
| Ríos Calima y Bajo San Juan | 9.0 | NaN |
| Ríos Chemicuica y Corozal | 8.0 | NaN |
| Ríos Claro y Jamundí | 5.0 | NaN |
| Ríos Directos al Magdalena (mi) | 10.0 | NaN |

| | | |
|------------------------------------|-----|-----|
| Ríos Guabas,Sabaletas y Sonso | 2.0 | NaN |
| Ríos Guadalajara y San Pedro | 1.0 | NaN |
| Ríos Lili, Melendez y Canaveralajo | 3.0 | NaN |
| Ríos Tulua y Morales | 7.0 | 1.0 |
| Ríos directos Magdalena (md) | 8.0 | NaN |
| Río Cucuana | 8.0 | NaN |
| San Andres | 8.0 | NaN |

| ESTADO | Suspendida |
|--|------------|
| SUBZONA_HIDROGRAFICA | |
| Alto Atrato | 6.0 |
| Alto Caqueta | 12.0 |
| Alto Cesar | 18.0 |
| Alto Guaviare | 5.0 |
| Alto Magdalena | 5.0 |
| Alto Nechí | 9.0 |
| Alto Río Cauca | 11.0 |
| Alto Río Putumayo | 23.0 |
| Alto Río Tomo | 1.0 |
| Alto Saldaña | 6.0 |
| Alto San Jorge | 1.0 |
| Alto Sinú - Urrá | 22.0 |
| Arroyos Directos al Caribe | 5.0 |
| Bajo Catatumbo | 2.0 |
| Bajo Cesar | 7.0 |
| Bajo Guaviare | 3.0 |
| Bajo Nechí (md) | 15.0 |
| Bajo Río Apaporis | 1.0 |
| Bajo Río Tomo | NaN |
| Bajo Saldaña | 8.0 |
| Bajo San Jorge - La Mojana | 58.0 |
| Bajo Sinú | 52.0 |
| Bajo Vaupés | 2.0 |
| Bajo Vichada | 1.0 |
| Canal del Dique margen derecho | 25.0 |
| Canal del Dique margen izquierda | 48.0 |
| Caño Guanápalo y otros directos al Meta | 5.0 |
| Caño Lioni o Terecay | 1.0 |
| Caño Matavén | 1.0 |
| Cga Grande de Santa Marta | 31.0 |
| Dagua - Buenaventura - Bahia Málaga | 3.0 |
| Directos Atrato entre ríos Bebaramá y Murri (md) | 1.0 |
| Directos Atrato entre ríos Quito y Bojayá (mi) | 1.0 |
| Directos Bajo Atrato entre río Sucio y desemboc... | 1.0 |
| Directos Bajo Cauca - Cga La Raya entre río Nechí | 1.0 |
| Directos Bajo Magdalena entre El Banco y El Plato | 29.0 |
| Directos Bajo Meta entre ríos Casanare y Orinoco | 1.0 |
| Directos Caribe - Ay.Sharimahana Alta Guajira | 10.0 |
| Directos Caribe Golfo de Morrosquillo | 6.0 |
| Directos Magdalena Medio entre ríos La Miel y Nare | 2.0 |
| Directos Magdalena entre Ríos Guarinó y La Miel | 4.0 |
| Directos Magdalena entre ríos Cabrera y Sumapaz | 4.0 |
| Directos Orinoco entre ríos Tomo y Meta (mi) | 2.0 |
| Directos Pacifico Frontera Panamá | 4.0 |
| Directos Rio Metica entre ríos Guayuriba y Yucao | 1.0 |

| | |
|--|------|
| Directos Río Amazonas (mi) | 6.0 |
| Directos Río Arauca (md) | 3.0 |
| Directos Río Cauca entre Río San Juan y Pto V... | 17.0 |
| Directos Río Cauca entre Río San Juan y Pto Valdia | 12.0 |
| Directos al Bajo Magdalena entre Calamar y dese... | 6.0 |
| Directos al Bajo Magdalena entre El Plato y Cal... | 4.0 |
| Directos al Bajo Nechí (mi) | 1.0 |
| Directos al Cauca entre Pto Valdivia y Río Nechí | 7.0 |
| Directos al Magdalena (Brazo Morales) | 12.0 |
| Directos al Magdalena Medio entre ríos Negro | 5.0 |
| Directos al Magdalena entre Ríos Seco y Negro (md) | 1.0 |
| Directos al Meta entre ríos Cusiana y Cravo Sur | 1.0 |
| Directos al Río Meta entre ríos Cusiana y Carare | 5.0 |
| Directos al Río Meta entre ríos Humea y Upia (mi) | 3.0 |
| Directos al Río Meta entre ríos Pauto y Carare | 2.0 |
| Juncal y otros Rios directos al Magdalena | 8.0 |
| Lago de Tota | 3.0 |
| Medio Cesar | 33.0 |
| Medio Guaviare | 7.0 |
| Medio Saldaña | NaN |
| Medio Sinú | 16.0 |
| Providencia | 2.0 |
| Quebrada El Carmen y Otros Directos al Magdalena | 9.0 |
| R._Inírida_(mi),_hasta_bocas_Caño_Bocón,_y_R._L... | NaN |
| Río Banadia y otros Directos al Río Arauca | 12.0 |
| Río Canalete y otros Arroyos Directos al Caribe | NaN |
| Río Fortalecillas y otros | 26.0 |
| Río Guachaca - Mendiguaca y Buritaca | 4.0 |
| Río Metica (Guamal - Humadea) | 9.0 |
| Río Neiva | 8.0 |
| Río Salado y otros directos Cauca | 2.0 |
| Río Tapias y otros directos al Cauca | 7.0 |
| Ríos Arroyohondo - Yumbo - Mulalo - Vijes - Yotoco | NaN |
| Ríos Las Cañas - Los Micos y Obando | NaN |
| Ríos Pescador - RUT - Chanco - Catarina y Cañav... | 21.0 |
| Río San Bartolo y otros directos al Magdalena M... | 8.0 |
| Roncador y Quitasueño | 1.0 |
| Río Piedras - Río Manzanares | 12.0 |
| Río Aipe, Río Chenche y otros directos al Magda... | 4.0 |
| Río Algodonal (Alto Catatumbo) | 33.0 |
| Río Amoyá | 3.0 |
| Río Anchicayá | NaN |
| Río Ancho y Otros Directos al caribe | 5.0 |
| Río Andágueda | NaN |
| Río Ariari | 19.0 |
| Río Ariguaní | 21.0 |
| Río Ariporo | NaN |
| Río Arma | 2.0 |
| Río Atá | 1.0 |
| Río Baché | 10.0 |
| Río Baudó | 1.0 |
| Río Bebamamá y otros Directos Atrato (md) | NaN |
| Río Bogotá | 58.0 |
| Río Bojabá | 1.0 |
| Río Bojayá | 1.0 |

| | |
|--|------|
| Río Bugalagrande | NaN |
| Río Cabi y otros Directos Atrato (md) | 1.0 |
| Río Cabrera | 8.0 |
| Río Caguan Alto | NaN |
| Río Caguan Bajo | 1.0 |
| Río Cajón | NaN |
| Río Camarones y otros directos Caribe | 2.0 |
| Río Capoma y otros directos al San Juan | 1.0 |
| Río Caqueta Bajo | 7.0 |
| Río Caqueta Medio | 2.0 |
| Río Carare (Minero) | 13.0 |
| Río Carraipia - Paraguachon, Directos al Golfo ... | 16.0 |
| Río Cará-Paraná | 1.0 |
| Río Casanare | 4.0 |
| Río Chicamocha | 44.0 |
| Río Chinchiná | 6.0 |
| Río Chitaga | 6.0 |
| Río Cimitarra y otros directos al Magdalena | 13.0 |
| Río Cobugón - Río Cobaría | 2.0 |
| Río Coello | 22.0 |
| Río Cotuhe | NaN |
| Río Cravo Norte | NaN |
| Río Cravo Sur | 3.0 |
| Río Cusiana | 7.0 |
| Río Cuñare | NaN |
| Río Desbaratado | 1.0 |
| Río Docampadó y Directos Pacífico | 3.0 |
| Río Don Diego | 1.0 |
| Río Fonce | 8.0 |
| Río Frío | 1.0 |
| Río Frío y Otros Directos al Cauca | 11.0 |
| Río Garagoa | 23.0 |
| Río Guacavía | NaN |
| Río Guachal (Bolo - Fraile y Párraga) | 5.0 |
| Río Guachicono | 4.0 |
| Río Gualí | 9.0 |
| Río Guape | NaN |
| Río Guapi | 2.0 |
| Río Guarinó | 1.0 |
| Río Guatiquía | 8.0 |
| Río Guavio | 12.0 |
| Río Guayabero | 2.0 |
| Río Guayas | 5.0 |
| Río Guayuriba | 11.0 |
| Río Guejar | NaN |
| Río Guáitara | 5.0 |
| Río Humea | 5.0 |
| Río Igará-Paraná | NaN |
| Río Inírida Alto | NaN |
| Río Juananbú | 7.0 |
| Río La Miel (Samaná) | 3.0 |
| Río La Vieja | 7.0 |
| Río Lagunilla y Otros Directos al Magdalena | 32.0 |
| Río Lebrija y otros directos al Magdalena | 86.0 |
| Río Lengupá | 6.0 |

| | |
|--|------|
| Río León | 18.0 |
| Río Luisa y otros directos al Magdalena | 6.0 |
| Río Manacacias | 4.0 |
| Río Margua | NaN |
| Río Mayo | 3.0 |
| Río Melúa | 1.0 |
| Río Mesay | 1.0 |
| Río Mira | 4.0 |
| Río Muco | NaN |
| Río Mulatos y otros directos al Caribe | 7.0 |
| Río Murindó - Directos al Atrato | 3.0 |
| Río Murri | 4.0 |
| Río Napipí - Río Opogadó | NaN |
| Río Nare | 20.0 |
| Río Naya - Yurumanguí | NaN |
| Río Negro | 12.0 |
| Río Nuevo Presidente - Tres Bocas (Sardinata, T... | 9.0 |
| Río Opía | NaN |
| Río Opón | 6.0 |
| Río Orteguzaza | 8.0 |
| Río Otún y otros directos al Cauca | 27.0 |
| Río Ovejas | 1.0 |
| Río Paila | NaN |
| Río Palacé | 3.0 |
| Río Palo | 10.0 |
| Río Pamplonita | 11.0 |
| Río Patia Alto | 9.0 |
| Río Patia Bajo | NaN |
| Río Patia Medio | 3.0 |
| Río Pauto | 1.0 |
| Río Pescado | 2.0 |
| Río Piendamo | 4.0 |
| Río Porce | 13.0 |
| Río Prado | 6.0 |
| Río Putumayo Bajo | 3.0 |
| Río Putumayo Directos (mi) | 2.0 |
| Río Putumayo Medio | 4.0 |
| Río Páez | 16.0 |
| Río Querary | NaN |
| Río Quinamayo y otros directos al Cauca | 2.0 |
| Río Quito | 1.0 |
| Río Ranchería | 36.0 |
| Río Risaralda | 7.0 |
| Río Rosario | 3.0 |
| Río Saija | 1.0 |
| Río Salaquí y otros directos Bajo Atrato | 5.0 |
| Río San Juan | 8.0 |
| Río San Juan (Frontera Ecuador) | NaN |
| Río San Juan Alto | 1.0 |
| Río San Juan Medio | 1.0 |
| Río San Juan del Micay | 7.0 |
| Río San_Miguel | NaN |
| Río Seco y otros Directos al Magdalena | 1.0 |
| Río Sipí | 2.0 |
| Río Socuavo del Norte y Río Socuavo Sur | NaN |

| | |
|--|------|
| Río Sogamoso | 13.0 |
| Río Suaza | 5.0 |
| Río Sucio | 9.0 |
| Río Sumapaz | 12.0 |
| Río Suárez | 45.0 |
| Río Tamaná y otros Directos San Juan | 4.0 |
| Río Tanela y otros Directos al Caribe | 3.0 |
| Río Tapaje | NaN |
| Río Tapias | 4.0 |
| Río Taraza - Río Man | 7.0 |
| Río Tarra | 5.0 |
| Río Telembí | NaN |
| Río Tetuán, Río Ortega | 1.0 |
| Río Timaná y otros directos al Magdalena | 4.0 |
| Río Timba | 1.0 |
| Río Timbiquí | NaN |
| Río Tolo y otros Directos al Caribe | 1.0 |
| Río Totare | 10.0 |
| Río Tuparro | 2.0 |
| Río Túa y otros directos al Meta | 2.0 |
| Río Upía | 4.0 |
| Río Vita | 1.0 |
| Río Yaguará y Río Iquira | 12.0 |
| Río Yucao | NaN |
| Río Zulia | 51.0 |
| Río del Suroeste y directos Río de Oro | 1.0 |
| Ríos Amaime y Cerrito | 2.0 |
| Ríos Cajambre - Mayorquín - Raposo | NaN |
| Ríos Cali | 1.0 |
| Ríos Calima y Bajo San Juan | 1.0 |
| Ríos Chemicuica y Corozal | 1.0 |
| Ríos Claro y Jamundí | 3.0 |
| Ríos Directos al Magdalena (mi) | 5.0 |
| Ríos Guabas, Sabaletas y Sonso | 1.0 |
| Ríos Guadalajara y San Pedro | 2.0 |
| Ríos Lili, Melendez y Canaveral | 1.0 |
| Ríos Tulua y Morales | 4.0 |
| Ríos directos Magdalena (md) | 5.0 |
| Río Cucuana | 6.0 |
| San Andres | 4.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/GeoHydroSubzonePivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/GeoHydroSubzonePivot20211215.csv>

| ESTADO | Activa | En Mantenimiento | Suspendida |
|-------------------|--------|------------------|------------|
| FECHA_INSTALACION | | | |
| 1900.0 | 1.0 | NaN | NaN |
| 1915.0 | 1.0 | NaN | NaN |
| 1922.0 | NaN | NaN | 3.0 |
| 1924.0 | 1.0 | NaN | NaN |
| 1928.0 | NaN | NaN | 1.0 |
| 1929.0 | NaN | NaN | 1.0 |
| 1930.0 | 2.0 | NaN | NaN |

| | | | |
|--------|-------|-----|-------|
| 1931.0 | 3.0 | NaN | 7.0 |
| 1932.0 | NaN | NaN | 6.0 |
| 1933.0 | NaN | NaN | 1.0 |
| 1934.0 | 3.0 | NaN | 4.0 |
| 1936.0 | 3.0 | NaN | NaN |
| 1937.0 | 2.0 | NaN | 2.0 |
| 1939.0 | NaN | NaN | 1.0 |
| 1940.0 | 5.0 | NaN | 2.0 |
| 1941.0 | 3.0 | NaN | 1.0 |
| 1942.0 | 1.0 | NaN | 1.0 |
| 1943.0 | 1.0 | NaN | NaN |
| 1944.0 | 1.0 | NaN | 2.0 |
| 1945.0 | 4.0 | NaN | 1.0 |
| 1946.0 | 9.0 | NaN | 5.0 |
| 1947.0 | 3.0 | NaN | NaN |
| 1948.0 | NaN | 1.0 | 4.0 |
| 1949.0 | NaN | NaN | 1.0 |
| 1950.0 | 2.0 | NaN | NaN |
| 1951.0 | 5.0 | NaN | NaN |
| 1952.0 | 5.0 | NaN | 3.0 |
| 1953.0 | 7.0 | NaN | 4.0 |
| 1954.0 | 6.0 | NaN | 3.0 |
| 1955.0 | 9.0 | NaN | 4.0 |
| 1956.0 | 6.0 | NaN | 6.0 |
| 1957.0 | 12.0 | NaN | 10.0 |
| 1958.0 | 67.0 | NaN | 50.0 |
| 1959.0 | 31.0 | NaN | 33.0 |
| 1960.0 | 19.0 | NaN | 20.0 |
| 1961.0 | 12.0 | NaN | 14.0 |
| 1962.0 | 22.0 | NaN | 21.0 |
| 1963.0 | 60.0 | NaN | 46.0 |
| 1964.0 | 40.0 | NaN | 32.0 |
| 1965.0 | 36.0 | NaN | 45.0 |
| 1966.0 | 38.0 | NaN | 39.0 |
| 1967.0 | 43.0 | NaN | 51.0 |
| 1968.0 | 45.0 | NaN | 62.0 |
| 1969.0 | 33.0 | 1.0 | 38.0 |
| 1970.0 | 97.0 | NaN | 61.0 |
| 1971.0 | 145.0 | 1.0 | 104.0 |
| 1972.0 | 99.0 | NaN | 74.0 |
| 1973.0 | 147.0 | NaN | 66.0 |
| 1974.0 | 154.0 | NaN | 88.0 |
| 1975.0 | 76.0 | NaN | 34.0 |
| 1976.0 | 48.0 | NaN | 44.0 |
| 1977.0 | 50.0 | NaN | 36.0 |
| 1978.0 | 61.0 | NaN | 63.0 |
| 1979.0 | 68.0 | 1.0 | 95.0 |
| 1980.0 | 68.0 | 1.0 | 88.0 |
| 1981.0 | 32.0 | NaN | 43.0 |
| 1982.0 | 21.0 | NaN | 19.0 |
| 1983.0 | 108.0 | 1.0 | 66.0 |
| 1984.0 | 84.0 | 1.0 | 67.0 |
| 1985.0 | 34.0 | NaN | 37.0 |
| 1986.0 | 68.0 | 2.0 | 42.0 |
| 1987.0 | 28.0 | NaN | 32.0 |

| | | | |
|--------|------|-----|------|
| 1988.0 | 16.0 | 1.0 | 11.0 |
| 1989.0 | 19.0 | 1.0 | 20.0 |
| 1990.0 | 28.0 | 1.0 | 36.0 |
| 1991.0 | 15.0 | NaN | 11.0 |
| 1992.0 | 22.0 | NaN | 20.0 |
| 1993.0 | 18.0 | NaN | 12.0 |
| 1994.0 | 23.0 | NaN | 10.0 |
| 1995.0 | 17.0 | NaN | 6.0 |
| 1996.0 | 8.0 | NaN | 5.0 |
| 1997.0 | 14.0 | 1.0 | 16.0 |
| 1998.0 | 1.0 | NaN | 3.0 |
| 1999.0 | 10.0 | NaN | 7.0 |
| 2000.0 | 5.0 | NaN | 1.0 |
| 2001.0 | 6.0 | NaN | 8.0 |
| 2002.0 | 3.0 | NaN | 4.0 |
| 2003.0 | 5.0 | NaN | 2.0 |
| 2004.0 | 48.0 | 1.0 | 10.0 |
| 2005.0 | 76.0 | 2.0 | 21.0 |
| 2006.0 | 14.0 | NaN | 7.0 |
| 2007.0 | 24.0 | NaN | 5.0 |
| 2008.0 | 16.0 | NaN | 3.0 |
| 2009.0 | 7.0 | NaN | 5.0 |
| 2010.0 | 12.0 | NaN | 2.0 |
| 2011.0 | 7.0 | NaN | 2.0 |
| 2012.0 | 6.0 | NaN | NaN |
| 2013.0 | 11.0 | NaN | 1.0 |
| 2014.0 | 37.0 | NaN | 8.0 |
| 2015.0 | 13.0 | NaN | 6.0 |
| 2016.0 | 40.0 | NaN | 3.0 |
| 2017.0 | 98.0 | NaN | 2.0 |
| 2018.0 | 63.0 | NaN | 1.0 |
| 2019.0 | 23.0 | 1.0 | NaN |
| 2020.0 | 3.0 | NaN | 1.0 |
| 2021.0 | 3.0 | NaN | NaN |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/InstallationYearPivot20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/InstallationYearPivot20211215.csv>

Geospatial array sample with 12 records

| | latitud | longitud | altitud |
|------|----------|------------|---------|
| 2635 | 3.574056 | -76.277806 | 1059 |
| 1091 | 5.097667 | -76.696500 | 62 |
| 2764 | 6.883056 | -75.332472 | 1650 |
| 963 | 6.677806 | -75.219806 | 1850 |
| 4046 | 7.486222 | -74.872389 | 50 |
| 251 | 4.161919 | -73.617578 | 422 |
| 1848 | 5.615500 | -72.976278 | 2470 |
| 1088 | 5.083333 | -73.416667 | 1507 |
| 2538 | 3.513472 | -76.314889 | 1018 |
| 2027 | 2.948750 | -75.293056 | 439 |
| 4397 | 9.720000 | -75.110000 | 152 |

4060 7.579056 -75.347833

95

Dataframe type: <class 'pandas.core.frame.DataFrame'>

 Thermal level evaluation - Caldas classification

Thermal level reference array:

| | Elevation ref value | Thermic level |
|---|---------------------|--|
| 0 | 800 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 1 | 1800 | Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ |
| 2 | 2800 | Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ |
| 3 | 3700 | Muy Frío, $12^{\circ}\text{C} > T > 6^{\circ}\text{C}$, $\leq 3700\text{meter}$ |
| 4 | 4700 | Extremadamente Frío, $6^{\circ}\text{C} > T > 0^{\circ}\text{C}$, $\leq 4700\text{meter}$ |
| 5 | 99999 | Nival, $T < 0^{\circ}\text{C}$, $> 4700\text{meter}$ |

Geospatial array sample with 12 records:

| | nombre | latitud | longitud | altitud | \ |
|------|------------------------------------|----------|------------|---------|---|
| 2635 | INGENIO MANUELITA [26075050] | 3.574056 | -76.277806 | 1059 | |
| 1091 | ANDAGOYA [54020010] | 5.097667 | -76.696500 | 62 | |
| 2764 | ANGOSTURA [27020040] | 6.883056 | -75.332472 | 1650 | |
| 963 | GOMEZ PLATA [27010160] | 6.677806 | -75.219806 | 1850 | |
| 4046 | ZARAGOZA [27030030] | 7.486222 | -74.872389 | 50 | |
| 251 | AEROPUERTO VANGUARDIA [35035020] | 4.161919 | -73.617578 | 422 | |
| 1848 | IZA [24031030] | 5.615500 | -72.976278 | 2470 | |
| 1088 | TENZA [35070290] | 5.083333 | -73.416667 | 1507 | |
| 2538 | PALMIRA ICA [26075010] | 3.513472 | -76.314889 | 1018 | |
| 2027 | AEROPUERTO BENITO SALAS [21115020] | 2.948750 | -75.293056 | 439 | |
| 4397 | CARMEN DE BOLIVAR [29015020] | 9.720000 | -75.110000 | 152 | |
| 4060 | CACERES [26250010] | 7.579056 | -75.347833 | 95 | |

| | ThermalLevelValue |
|------|---|
| 2635 | Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ |
| 1091 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 2764 | Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ |
| 963 | Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ |
| 4046 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 251 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 1848 | Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ |
| 1088 | Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ |
| 2538 | Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ |
| 2027 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 4397 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |
| 4060 | Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ |

Thermal level statistics:

Count:

| | |
|--|------|
| Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ | 2722 |
| Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ | 886 |
| Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ | 655 |
| Muy Frío, $12^{\circ}\text{C} > T > 6^{\circ}\text{C}$, $\leq 3700\text{meter}$ | 184 |
| Extremadamente Frío, $6^{\circ}\text{C} > T > 0^{\circ}\text{C}$, $\leq 4700\text{meter}$ | 41 |
| Nival, $T < 0^{\circ}\text{C}$, $> 4700\text{meter}$ | 4 |

Name: ThermalLevelValue, dtype: int64

Normalize percentage rate:

| | |
|--|--------|
| Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ | 0.6060 |
| Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ | 0.1972 |
| Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ | 0.1458 |
| Muy Frío, $12^{\circ}\text{C} > T > 6^{\circ}\text{C}$, $\leq 3700\text{meter}$ | 0.0410 |
| Extremadamente Frio, $6^{\circ}\text{C} > T > 0^{\circ}\text{C}$, $\leq 4700\text{meter}$ | 0.0091 |
| Nival, $T < 0^{\circ}\text{C}$, $> 4700\text{meter}$ | 0.0009 |

Name: ThermalLevelValue, dtype: float64

| ESTADO | Activa | En Mantenimiento \ |
|--|--------|--------------------|
| ThermalLevelValue | | |
| Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ | 1474.0 | 10.0 |
| Extremadamente Frio, $6^{\circ}\text{C} > T > 0^{\circ}\text{C}$, $\leq 4700\text{meter}$ | 24.0 | NaN |
| Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ | 427.0 | 3.0 |
| Muy Frío, $12^{\circ}\text{C} > T > 6^{\circ}\text{C}$, $\leq 3700\text{meter}$ | 140.0 | NaN |
| Nival, $T < 0^{\circ}\text{C}$, $> 4700\text{meter}$ | 3.0 | NaN |
| Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ | 575.0 | 4.0 |

| ESTADO | Suspendida |
|--------|------------|
|--------|------------|

| | |
|--|--------|
| ThermalLevelValue | |
| Cálido, $T \geq 24^{\circ}\text{C}$, $\leq 800\text{meter}$ | 1238.0 |
| Extremadamente Frio, $6^{\circ}\text{C} > T > 0^{\circ}\text{C}$, $\leq 4700\text{meter}$ | 17.0 |
| Frío, $18^{\circ}\text{C} > T > 12^{\circ}\text{C}$, $\leq 2800\text{meter}$ | 225.0 |
| Muy Frío, $12^{\circ}\text{C} > T > 6^{\circ}\text{C}$, $\leq 3700\text{meter}$ | 44.0 |
| Nival, $T < 0^{\circ}\text{C}$, $> 4700\text{meter}$ | 1.0 |
| Templado, $24^{\circ}\text{C} > T > 18^{\circ}\text{C}$, $\leq 1800\text{meter}$ | 307.0 |

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/ThermalLevelPivot20211215.png>

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/ThermalLevelPivotPie20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/ThermalLevelPivot20211215.csv>

General map plot station

Graph >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/Graph/StationScatterPlotMap20211215.png>

Table >> <https://github.com/rcfdtools/R.GISPython/blob/main/CNEStationStatistic/PivotTable/StationScatterPlotMap20211215.csv>

Process finished with exit code 0