

## Geodata and geodata resources.

### 1.What is geodata?

Geodata, also known as geographic data or geospatial data, refers to data and information that has explicit or implicit association with a location relative to Earth. Geodata is information about geographic locations that is stored in a format that can be used with a geographic information system (GIS). Common types of geographic data include vector files, which consist of vertices and paths; raster files, which is made up of pixels and grid cells; geographic databases, which serves the function of housing vectors and rasters; multi-temporal data, which attaches a time component to information; and Web files. Geodata can be stored in a database, geodatabase, shapefile, coverage, raster image, or even a dbf table or Microsoft Excel spreadsheet.

### 2.Geographic data groups

Some geographic themes into which geographic data can be grouped include:

#### -Cultural Themes :

Administrative data (boundaries -- cities and planning)

Socioeconomic data (demographics -- economy and crime)

Transportation (roads -- railways and airport)

#### -Physical Themes :

Elevation data (terrain and relief)

Environmental data (agriculture -- soils and climate)

Hydrography data (oceans, lakes, and rivers) . (1)

### 3.Free GIS Data Sources: Best Global Raster and Vector Datasets

1.Esri Open Data Hub

2.Natural Earth Data

3.USGS Earth Explorer

4.OpenStreetMap

5.NASA Earth Observations (NEO)

6.Sentinel Satellite Data and so on. (2)

## References

1. Heavy.AI. <https://www.heavy.ai/>
2. GisGeography. <https://gisgeography.com/>