

Geospatial & Remote Sensing Data Sources

List of links to open source or free geospatial data, especially aerial imagery and elevation data. This is not a complete list.

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Contents

Software Tools	2
GIS Tutorials and Guides	2
Data Sources	2
<i>Global</i>	2
<i>North America</i>	2
<i>Europe</i>	2
<i>South and Middle Americas</i>	3
<i>Africa</i>	3
<i>Australia & New Zealand</i>	3
<i>Asia & Oceania</i>	3
<i>Middle East</i>	3
<i>Switzerland</i>	3
SRTM Digital Elevation Models	4
Other data sources and projects	4

Software Tools

QGIS, Open Source GIS: <https://www.qgis.org/en/site/#>

ILWIS by 52north, Open Source GIS: <https://52north.org/software/software-projects/ilwis/>

MapWindow, Open Source GIS: <https://www.mapwindow.org/>

ArcGIS by ESRI: <https://www.esri.com/en-us/home>

GIS Tutorials and Guides

GIS Geography, includes some free data sources: <https://gisgeography.com/gis-datasets/>

ESRI's Help Section: <https://pro.arcgis.com/en/pro-app/latest/help/mapping/properties/coordinate-systems-and-projections.htm>

Data Sources

Global

OpenStreetMap, Community Mapping project, view edit and download vector data:

<https://www.openstreetmap.org/>

1. Create an account

2. Follow these download instructions:

<https://mdl.library.utoronto.ca/technology/tutorials/exporting-map-data-openstreetmap#:~:text=Go%20to%20openstreetmap.org%20and,the%20visible%20extent%2C%20click%20Export.>

NASA Earthdata: <https://earthdata.nasa.gov/>

United States Geological Survey (USGS) Earth Explorer: <https://earthexplorer.usgs.gov/>

North America

USGS Earth Explorer, United States, Aerial Imagery, Elevation data, LiDAR:

<https://earthexplorer.usgs.gov/>

National Oceanic and Atmospheric Administration (NOAA): <https://www.ncei.noaa.gov/>

USGS National Map: <https://www.usgs.gov/core-science-systems/national-map>

Europe

European Space Agency (ESA) Sentinel Hub: <https://www.sentinel-hub.com/develop/integrate/>

South and Middle Americas

INPE's Earth Observation General Coordination, Brazil: <http://www.dgi.inpe.br/CDSR/>
GeoSUR, collaborative initiative among national mapping agencies in South America: <https://www.geosur.info/>

Africa

AfriGEO: <https://afrigeo.africageoportal.com/>

Australia & New Zealand

Australian Ocean Data Network (AODN): <https://portal.aodn.org.au/search>
Land Information New Zealand (LINZ) Data Service: <https://data.linz.govt.nz/>
Australian Government Geoscience Australia: <https://portal.ga.gov.au/>

Asia & Oceania

Japan Aerospace Exploration Agency (JAXA) Global ALOS 3D World:
https://www.eorc.jaxa.jp/ALOS/en/index_e.htm

Global ALOS 3D World dataset, which includes high-resolution elevation data for Asia and other regions.

Middle East

Gulf Information Society: <https://www.gisqatar.org.qa/>

Including Qatar, United Arab Emirates, Saudi Arabia, Oman, Kuwait, and Bahrain. Not clear if data is available or not.

Switzerland

Federal Office of Topography (swisstopo): <https://www.swisstopo.admin.ch/>

Federal Statistical Office:
<https://www.bfs.admin.ch/bfs/en/home/services/geostat/geodata.html>

Federal Office for the Environment:
<https://www.bafu.admin.ch/bafu/en/home/themes/landscape/state/monitoring-of-land-use/land-use-statistics/mosaik-maps-and-data.html>

Swiss Federal Statistical Office's GIS Data Catalogue: <https://opendata.swiss/en>

SRTM Digital Elevation Models

NASA Earthdata: <https://earthdata.nasa.gov/>

USGS Earth Explorer: <https://earthexplorer.usgs.gov/>

CGIAR-CSI SRTM: <https://srtm.csi.cgiar.org/>

USGS Earthdata OpenTopography: <https://opentopography.org/>

Global Multi-resolution Terrain Elevation Data (GMRTED):
<https://www.gmrt.org/GMRTMapTool/>

Other data sources and projects

Global Forest Watch, a project by the World Resources Institute:
<https://www.globalforestwatch.org/>

World Climate Data by WorldClim: <https://www.worldclim.org/data/index.html>

Pacific Islands Ocean Observing System (PacIOOS): <https://www.pacioos.hawaii.edu/>
The platform provides access to data such as ocean currents, sea surface temperature, and wave height.

OceanDataHub: <https://oceandatahub.org/>
An online platform that provides access to a variety of oceanographic data, including bathymetry, temperature, and other oceanographic variables for global ocean regions, including Australia and Oceania.

Asian Development Bank, Data Library: <https://data.adb.org/>

World Bank Geospatial Datasets:
<https://datacatalog.worldbank.org/search/collections/Geospatial-Datasets>

UNEP: <https://wesr.unep.org/article/wesr-geospatial-data-and-services>

GADM, administrative boundaries, globally : <https://gadm.org/>