

Introduction to open source GIS and remote sensing data

No.	Data Source	Link	General purpose
1	National Centers for Environmental Information	http://www.ngdc.noaa.gov/mgg/shorelines/gshhs.html	Land and ocean boundaries
2	Socioeconomic Data and Applications Center (sedac)	https://sedac.ciesin.columbia.edu/data/sets/browse	Global Agricultural Lands, NPP etc.
3	Worldclim	https://www.worldclim.org/data/index.html	Weather and climate
4	Hydrological data and maps based on Shuttle Elevation Derivatives at multiple Scales (HydroSHEDS)	https://www.hydrosheds.org/page/hydrobasins	Hydrology
5	Center for Sustainability and the Global Environment (SAGE)	http://nelson.wisc.edu/sage/data-and-models/datasets.php	Global land cover, Crop Calendar GIS
6	EarthStat	http://www.earthstat.org/	Agricultural Land Use and potential use
7	History Database of the Global Environment (HYDE)	https://themasites.pbl.nl/tridion/en/themasites/hyde/index.html	Land-use, agricultural areas, yields and greenhouse gas emissions
8	Food and Agriculture Organization (FAOSTAT)	http://www.fao.org/faostat/en/#home	Agriculture data
9	Global Agro-ecological zones (GAZE)	http://www.fao.org/nr/gaez/programme/en/	Agricultural related–consumption, suitability, yields, production etc.
10	EarthExplorer	https://earthexplorer.usgs.gov/	Remote sensing data Landsat, AVHRR, DEM etc.
11	Copernicus Open Access Hub	https://sentinel.esa.int/web/sentinel/sentinel-data-access	Sentinel data SAR, Optical
12	Alaska Satellite Facility	https://www.asf.alaska.edu/	SAR data
13	Earth data	https://search.earthdata.nasa.gov/search	Remote sensing data MODIS, AVHRR, AMSRE etc.

Open Source GIS and Remote Sensing Software/Tool box

Software	Use	Source
QGIS	geospatial data management and analysis	https://qgis.org/en/site/forusers/download.html
The Sentinel Toolbox 1	SAR applications	https://sentinel.esa.int/web/sentinel/toolboxes
The Sentinel Toolbox 2/3	High resolution optical applications	
GRASS: Geographic Resources Analysis Support System	geospatial data management and analysis	https://grass.osgeo.org/
gvSIG	Have GIS data input format and has nice vector data editing functions	http://www.gvsig.org/en/web/guest/products/gvsig-desktop/downloads
ILWIS: Integrated Land and Water Information System	geospatial data management and analysis	https://52north.org/software/software-projects/ilwis/
SPIRITS	Analyzing satellite derived image time series for crop and vegetation monitoring	https://mars.jrc.ec.europa.eu/asap/download.php