



Global Mapping Tools

Global mapping tools (soils, water and land cover) are widely used as data providers on land and water resources. They can have a high potential when analyzing climate change impact on the land-use and water resources in the NENA region, as they provide information on the state of the resources.

The Geographic Information System (GIS) is the most useful provider of global maps that, amongst other things, contain information on land and water resources. GIS is a computerized tool for storage and analysis of data. Using digital methods, GIS maps combine attribute data (statistics) with spatial information (maps).

The following table lists and describes the most commonly used global mapping tools developed and used by FAO, UNEP, and other agencies.

Most Commonly Used Global Mapping tools

NAME	DESCRIPTION
GEO NETWORK	Geo-spatial data provider. Browsing tool to find agricultural, climatic and other thematic maps at a country, regional or global scale - FAO
AQUASTAT	Global information system on water and agriculture. Contains statistical data and maps that provide information on renewable water resources and water withdrawn from 2001-2005 – FAO
AGRO-MAPS	Contains a database of agricultural land-use statistics by region. Thematic maps can be created by subject (production, yield or harvested areas) – FAO
GLiPHA	Interactive maps focusing on the Global Livestock Production and Health Atlas (GLiPHA). Maps also display data on land use in agriculture – FAO
Global Agro-ecological zones	Provides analyzes of agricultural land-use options and agricultural production potential. Contains a large set of global data presented as maps and agro-ecological zone information (including climate, soil and precipitation) - FAO and International Institute for Applied Systems Analysis (IIASA) Collaborative Programme
GLASOD – Global Assessment of Soil Degradation	Results of this study are presented in a set of maps elaborated by FAO's Natural Resources Land and Water Division – UNEP/ISRIC/FAO
HWSD –Harmonized World Soil Database	Displays over 16,000 different soil mapping units including regional and national updates of soil information worldwide – FAO/Land Use Change and Agriculture Program of IIASA (LUC)
LYS - Land use systems maps	Covers six countries including Tunisia. - FAO/UNEP/GEF Land Degradation Assessment of Drylands Programme
Global soil maps	Non-GIS data collection tool. Online resource containing global and country soil maps provided by ISRIC, FAO and the Joint Research

	Centre for Soils.
GRID-Arendal	Contains thematic maps, including a large collection of maps on water resources. Most of the regional maps are limited to Africa. - UNEP
UNEP GEO Data Portal	Online database providing a tool to create data sets. Display maps amongst others on water resources. – UNEP

The following table suggests potential uses for some of the global mapping tools in the NENA region.

Potential Use of Global Mapping Tools in the NENA Region

Scale	Low or no data availability	Moderate data availability	High/Full data availability
Country-based	GLiPHA	Global soil maps	Solid Degradation Maps
Regional-based		AGRO-MAPS	GRID-Arendal
Global maps	Land use systems maps (LYS) AQUASTAT Harmonized World Soil Database (HWSD) Global Agro ecological zones Global soil maps GRID-Arendal		
Other special tools	GeoNetwork GEO Data Portal		

References and further information on global mapping tools:

<http://www.gis.com/whatisgis/index.html>
<http://www.fao.org>
<http://www.globalsoilmap.net/>
<http://www.isric.org/>
<http://www.fao.org/nr/water/aquastat/main/index.stm>
<http://www.fao.org/landandwater/agll/agromaps/interactive/page.jspx>
<http://kids.fao.org/glipha/>
<http://www.iiasa.ac.at/Research/LUC/GAEZ/index.htm>
<http://www.fao.org/nr/land/information-resources/glasod/en/>
<http://www.fao.org/geonetwork/srv/en/main.home>
<http://www.iiasa.ac.at/Research/LUC/External-World-soil-database/HTML/index.html?sb=1>
www.fao.org/nr/lada/
<http://www.grida.no>
<http://geodata.grid.unep.ch/>