

ETHIOPIA

Geographic Base Map

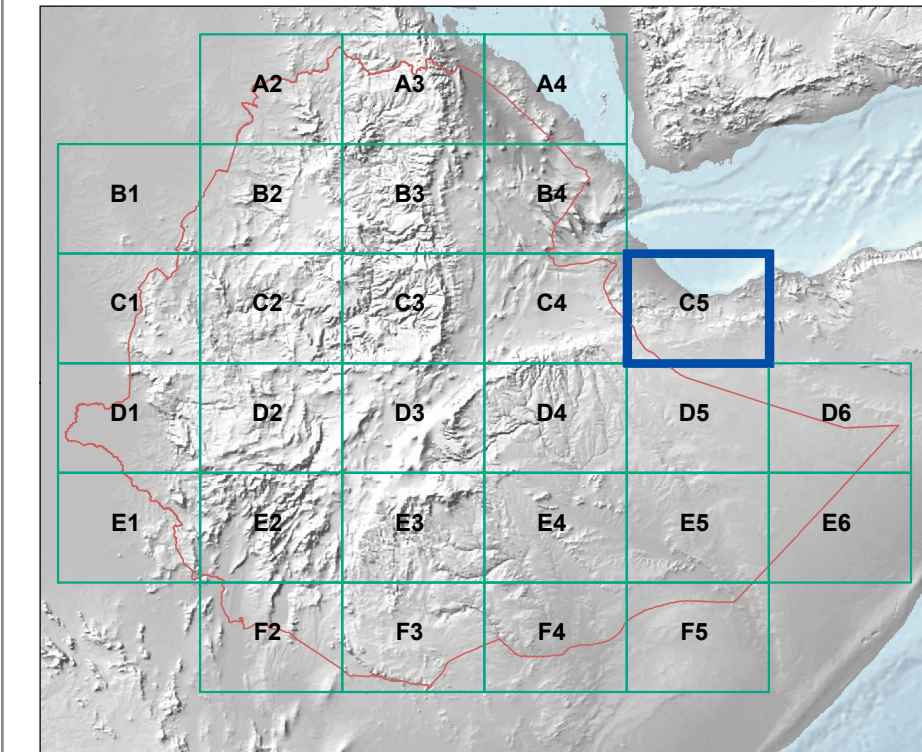
Tile C5 Reference Map Series 1:250,000

Map Sheet # 12 / C5

Somali/Jigjiga

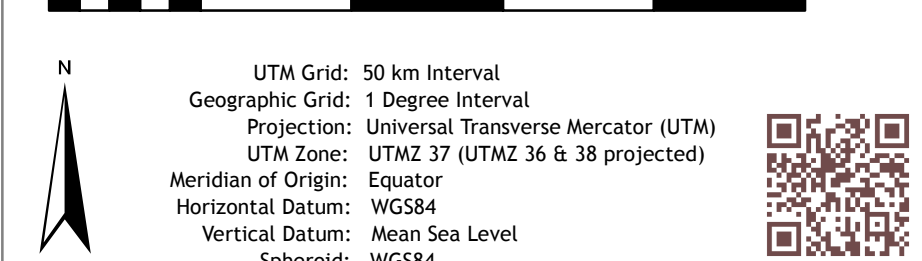
WLRC Land Cover Map 2016

Map Sheet Index - Scale 1:15,000,000



1:250,000

0 2.5 5 10 15 20 25 km



Legend

Administration	Transport
National boundary	Railway
Watershed	Transnational road
Farmland	Primary road
Forest	Secondary road
National Park	Tertiary road
	Track
	Path
	Railway under construction
Settlement	Drainage
State capital	Temporary rivulet (cat. 2)
Region capital	Occasional river (cat. 3)
Large settlement	Seasonal river (cat. 4)
Medium settlement	Perennial river (cat. 5)
Small settlement	Main river (cat. 6)
Not classified	Stream (cat. 7)
	Large stream (cat. 8)
Infrastructure	WLRC Land Cover Classes
Airport	Alfalfa
Burnt area	Barrenland
Motor station	Cropland
Geographic station	Forest
Health post	Grassland
Dam	Settlements
	Shrubland
	Water body
	Wetland
	Woodland
Hydrology	
Marshland	
Well	
Topography	
Mountain peak	
Contour lines (500m interval)	
Surface Water	
Lake	
Episodic lake	

How to read the "WLRC Land Cover Map 1:250,000"

The main methodological approach implemented to map the complex landscapes of Ethiopia at the required scales for the WLRG series was the majority and minority concept of landscape segmentation that translated into the HCS-based mapping (Homogeneous Image Classification Units). The employment of such an "exclusion-based" approach (e.g., sub-setting of the Landsat images and gradually reducing the minority mapping) can be considered as a breakthrough in deriving important land cover information in heterogeneous landscapes, such as the irrigated agricultural area of Ethiopia. Nevertheless, the final land cover was mapped using an approach that combined the automated HCS approach with expert knowledge and visual determination of units. This approach made it possible to distinguish cultivated land from other land use or land cover classes. Unsurprisingly, the actual amount of cultivated land is considerably larger than that indicated by official statistics in use since the mid 1980s when the rural population was half its current size. The team also mapped large-scale land use systems, including all of the large direct investments. Results of the study show there has been a considerable expansion and intensification of farming in the past three decades, unfortunately leading to more soil erosion.

References: Tadesse Kassamara, Sefiye Ecker, Kasper Huml, Gerd Zedler & Hans Huml (2016): Reducing landscape heterogeneity for improved land use and land cover (LULC) classification across the large and complex Ethiopian highlands, *Geoscientific International*, DOI: 10.1080/10246460.2016.1222637

Geospatial Information

National spatial data infrastructure (NSDI) plays a significant role in the development of Ethiopia's fast growing economy, but it contributes just as much to sustainable use of natural resources, infrastructure planning, and efficient management of food crises. Maps are means of visual communication and foster understanding of complex problems. They are containers of data, show spatial patterns, enable geographic analysis, and contribute to the UN "data revolution" initiative. It is common knowledge that people retain 80% of what they see, 20% of what they read, and 10% of what they hear. Maps get 40% more total views on the internet. This makes maps an ideal means of development and communication in all levels.

The MapServer Ethiopia project

MapServer Ethiopia is a web-based open-source platform for the dissemination of geospatial data maps and information about Ethiopia. The website contains three main web services that enable: (1) mapping based on pre-produced maps, (2) online mapping of selected information layers, and (3) open geospatial data download. The MapServer Ethiopia data platform and website are intended to improve mapping and spatial understanding in the context of project management, natural resources governance, humanitarian aid work, and academic education.

The MapServer Ethiopia project is part of the activities of the Water and Land Resource Centre (WLRG) to improve data sharing and dissemination in support of land and water resources management. The MapServer Ethiopia is funded by the Swiss Agency for Development and Cooperation (SDC).

The Water and Land Resources Centre

The Water and Land Resource Centre (WLRG) in Addis Ababa, Ethiopia www.wlr-eth.org was established by the Centre for Development and Environment, University of Bern, Switzerland www.cde.unibe.ch in 2011 as an institution associated to Addis Ababa University. Since its inception the centre systematically monitors, collects, interprets, and disseminates data and knowledge in support of sustainable management of natural resources. Today, the centre builds on long-standing achievements to reduce land degradation, improve livelihoods in rural areas and serves as regional knowledge hub and cross-scale dialogue in land governance.

Origin of map data

Building on EthioGIS-3, the new (2018) release of the National Geospatial Database System for Ethiopia, the MapServer Ethiopia www.mapserver-ethiopia.org aims at providing a web-based gateway for open and non-authoritative geospatial information for the Federal Democratic Republic of Ethiopia. The mapping services are designed to provide improved decision support for development action, government authorities, NGOs, international organizations, and the civil society. The MapServer Ethiopia is part of WLRG's Water and Land Resource Information System (WLRIS) and adds a portal for environmental and socio-economic data, data sharing facilities and server capabilities for registered user through www.wlr-eth.org. Besides of WLRG's own geospatial data foundation, the main MapServer Ethiopia product lines are available on- and off-line mapping services based on a wealth of free and open geospatial providers.

Disclaimer

The boundaries, denominations, and any other information shown on this map do not imply any judgment about the legal status of any territory, or constitute any official endorsement or acceptance of any boundaries, on the part of any Government. The joint publishers, the Water and Land Resource Centre, Addis Ababa, Ethiopia and the Centre for Development and Environment, University of Bern, Switzerland, assume no liability for any direct, incidental, or consequential damages whatsoever, and are not responsible for claims by any third party.

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Reference

Please note that you must indicate the source of geospatial data or map layers when using this information in other products, as follows: WLRG Ethiopia and CDE, University of Bern, Switzerland, MapServer Ethiopia, Thematic and Geographic Datasets, Field and Base Map Series (map) 1:150,000-1:250,000, Release 3.0/December 2018. Internet: www.mapserver-ethiopia.org

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