

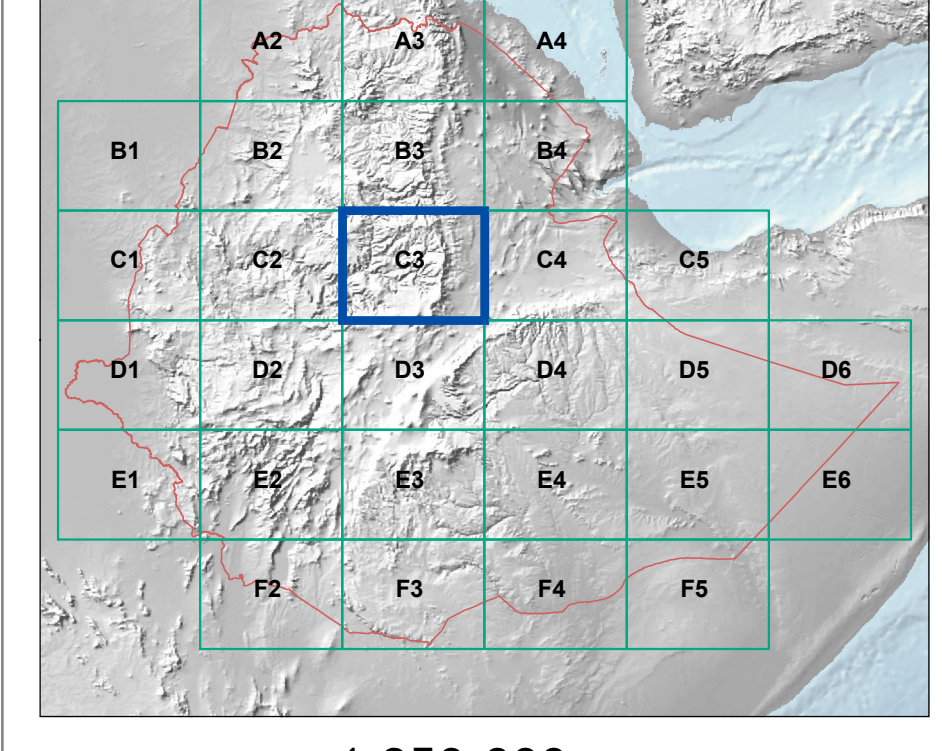
ETHIOPIA

Geographic Base Map

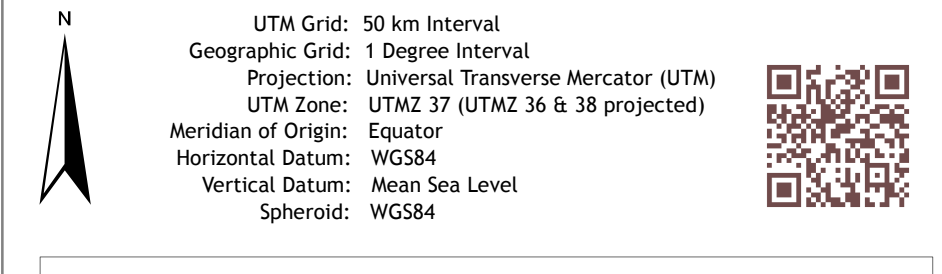
Tile C3 Reference Map Series 1:250,000
Map Sheet # 10 / C3 South-Eastern Amhara

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
Regional boundary	Traditional road
Farmstead	Primary road
Forest	Secondary road
National Park	Tertiary road
	Track
Settlement	Drainage
State capital	Temporary inlet (cat. 2)
Region capital	Occasional river (cat. 3)
Large settlement	Periodic river (cat. 4)
Medium settlement	Main river (cat. 6)
Small settlement	Main river (cat. 6)
Not classified	Stream (cat. 7)
	Large stream (cat. 8)
Infrastructure	WLRC Land Cover Classes
Motor station	Barrenland
Geostation	Bareland
Health post	Cropland
Dam	Forest
	Grassland
Hydrology	Settlements
Marshland	Shrububush
Mountain peak	Water body
Contour lines (500m interval)	Wetland
	Woodland
Surface Water	
Lake	
Episodic lake	

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

The new geospatial approach implemented to map the complex landscape of Ethiopia at the required scales for the MapServer series was the majority and primary concept of natural resources, infrastructure planning, and efficient management of food crops. Major are the use of remote sensing and GIS based mapping (remote sensing, GIS, and GIS-based mapping) and the use of the "exclusion-based" approach (a sub-set of the Land Use and Land Cover Classification (LULCC) approach) to map the land cover. This approach is a breakthrough in deriving important land cover information in heterogeneous landscapes, such as the rural landscape of Ethiopia. Nevertheless, the final land cover map was derived using an approach that combined the automated HICL approach with expert knowledge and manual interpretation of the final land cover map. This approach made it possible to map 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 of some foreign investors. 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: Thiabu Kassambara, Sandra Eckert, Kasper Hurni, Gero Zechin & Hans Hurni (2016): Reducing landscape heterogeneity for improved land use and land cover (LULC) classification across the large and complex Ethiopian highlands, *Geocarto International*, DOI: 10.1080/10106049.2016.1222837

National information

National spatial data infrastructure (NSDI) plays a significant role in the development of Ethiopia's rural growing economy. It contributes to a number of sustainable use of natural resources, infrastructure planning, and efficient management of food crops. Major are the use of remote sensing and GIS based mapping (remote sensing, GIS, and GIS-based mapping) and the use of the "exclusion-based" approach (a sub-set of the Land Use and Land Cover Classification (LULCC) approach) to map the land cover. This approach is a breakthrough in deriving important land cover information in heterogeneous landscapes, such as the rural landscape of Ethiopia. Nevertheless, the final land cover map was derived using an approach that combined the automated HICL approach with expert knowledge and manual interpretation of the final land cover map. This approach made it possible to map 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 of some foreign investors. 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.

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 user-provided 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 awareness and understanding in the context of project management, natural resource governance, humanitarian aid work, and academic education.

The Water and Land Resource Centre

The Water and Land Resource Centre (WLRCC) is Addis Ababa, Ethiopia. www.wlrc.ethiopia was established by the Centre for Development and Environment, University of Bern, Switzerland and the Water and Land Resource Centre, Addis Ababa, Ethiopia and the Centre for Development and Environment, University of Bern, Switzerland. The WLRCC is a joint project of the Water and Land Resource Centre, Addis Ababa, Ethiopia and the Centre for Development and Environment, University of Bern, Switzerland. The WLRCC is a joint project of the Water and Land Resource Centre, Addis Ababa, Ethiopia and the Centre for Development and Environment, University of Bern, Switzerland.

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 site is 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 actors, government authorities, NGOs, international organizations and the civil society. The MapServer Ethiopia is part of WLRCC's Water and Land Resource Information System (WLRCC-ILRIS) and adds a portal for environmental and socio-economic data to the WLRCC-ILRIS. The WLRCC-ILRIS is a registered user through www.wlrc.ethiopia. Besides of WLRCC's land geospatial data foundation, the main MapServer Ethiopia product lines are scalable and efficient mapping services based on a wealth of free and open geospatial providers.

Disclaimer

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Reference

Please note that you must indicate the source of geospatial data or map layers when using this information. MapServer Ethiopia, Thematic and Geographic Overlay, Field and Base Map Series (map) 1:250,000, 1:250,000, Release 3.0/December 2018. Internet: www.mapserver-ethiopia.org

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