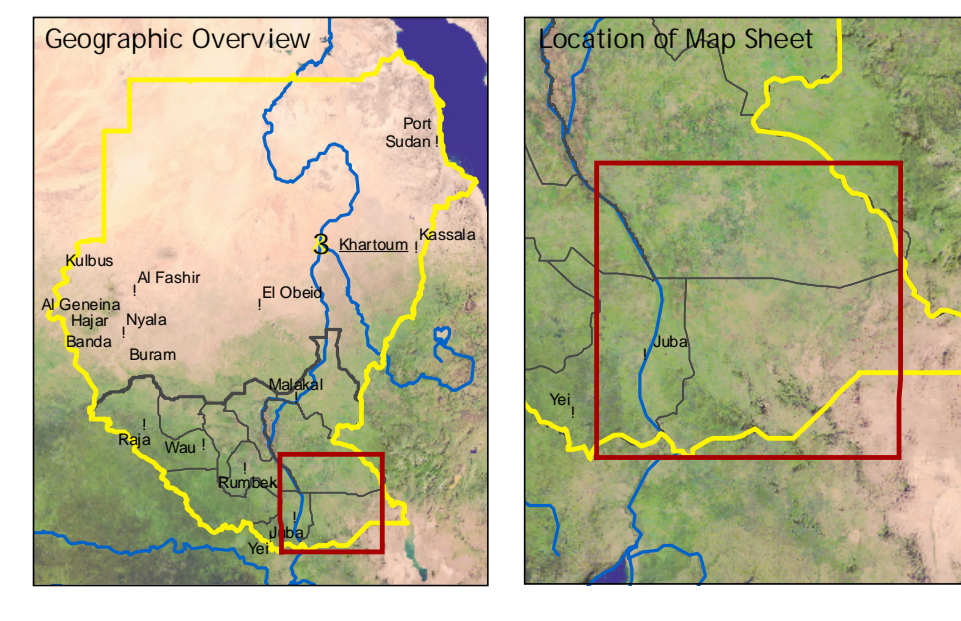


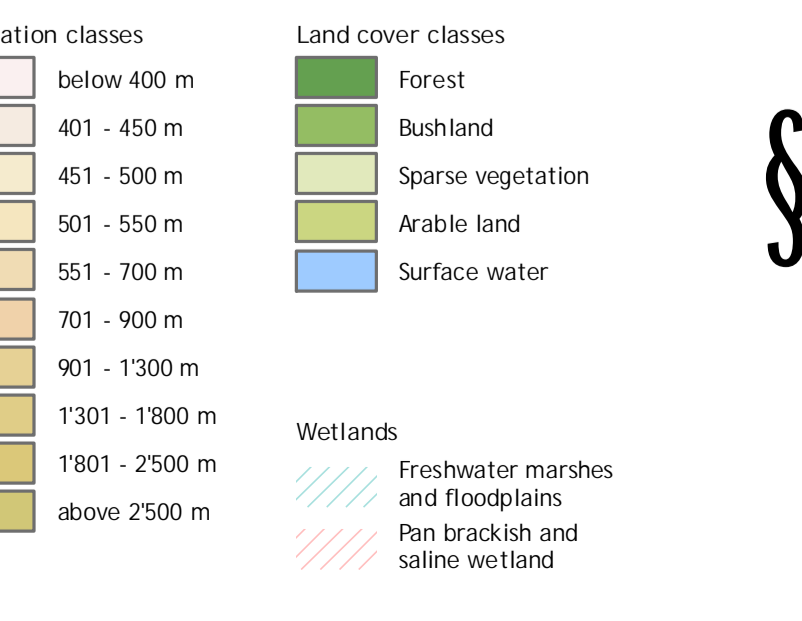


Southern Sudan State Map Series
Eastern Equatoria State
Sudan
1 : 500'000
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- Political boundaries**
 - State boundary (tentative)
 - National boundary
 - North-South demarcation line 1956 (tentative)
- Settlements**
 - State capital
 - Principal town
 - Secondary town
 - Administrative town
 - Settlement (verified)
 - Settlement (not verified)
 - Built-up area
- Topography**
 - Spot height
 - Main contour (100m interval)
 - Intermediate contour (40m interval)
 - Supplementary contour
- Geographical features**
 - Hills and mountains
- Infrastructural features**
 - Airstrip (CDE)
 - Main road (CDE)
 - Gravel road (CDE)
 - DIRI road (CDE)
 - Street (CDE)
 - Railway (CDE)
 - Ship (ES)
 - Main road (ES)
 - Gravel road (ES)
 - Street (ES)
 - DIRI road and track (ES)
- Hydrological features**
 - Canal (finished)
 - Pipeline
 - Main river
 - Seasonal river
 - Occasional river
 - Episodic river
 - Dry river
 - Canal
 - Lake and riverbed
- Elevation classes**
 - below 400 m
 - 401 - 450 m
 - 451 - 500 m
 - 501 - 550 m
 - 551 - 700 m
 - 701 - 900 m
 - 901 - 1300 m
 - 1301 - 1800 m
 - 1801 - 2500 m
 - above 2500 m
- Land cover classes**
 - Forest
 - Bushland
 - Sparse vegetation
 - Arable land
 - Surface water
- Wetlands**
 - Freshwater marshes and floodplains
 - Peat bogs and saline wetland

- Project Information**
 - The present map sheet is composed of field maps (1:250,000) and is one of nine maps of the Southern Sudan State Map Series (1:500,000). The maps and the geodatabase were prepared by the Centre for Development and Environment (CDE) of the University of Berne, Switzerland, with funding from the Swiss Federal Department of Foreign Affairs. The map is being released as a technical contribution to support the humanitarian, peace-keeping and reconstruction efforts in Southern Sudan. Boundaries, towns, settlements, locations and the North-South demarcation line of 1956 shown on this map are not authoritative and should not be considered as such. The CDE (University of Berne) would welcome any information that could improve this map. For comments and suggestions, please contact the CDE at info@cde.unibe.ch
- Data sources**
 - Most of the line and point features were provided by Earthview Information Services, Minneapolis, USA (ES) based on the Sudan Military Topographic Map, 1:200,000 and 1:100,000 Series. Many vector objects (settlements, roads, etc.) were digitized from maps, air strips, as well as resettlement villages, water surfaces and meanders) were added based on available imagery interpretation by CDE.
- Data completion**
 - Georeferencing of spatial data was obtained through vector-to-image rectification. Except for the non-staging area, NASA's SRTM data were used as a reference for topographic features and for the development of a digital terrain model (DTM). The DTM has a 90-meter resolution and shows contours, artificial built and dashed relief. In flat areas the DTM was calculated based on spot heights and contours from map sources. Ground truthing and control points were not applied. Average geometric distortion is estimated to be below +/- 50 m. Wetland data (freshwater marshes and floodplains) were derived from Landsat ETM+, Terra MODIS (VCF and EVI), and FAO AICover data (agricultural). Information was classified and cross-validated. Verification on terrain was not applied. Raster mosaicking, georeferencing and digital color mapping were done with ESRI ArcGIS 9.1 and Leica ERDAS IMAGINE 8.7.



1:500'000
5 10 15 20 25 km

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