

Documentation of the dataset “Historical road network of Kenya (1950s – 1980s) extracted from topographic maps (Version 1.0)”

Authors:

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Description:

This dataset includes a shapefile representing the digitized historical road network of Kenya. It contains over 56,000 km of historical roads extracted from 449 historical topographic maps of 1:50,000 scale and 71 maps of 1:100,000 scale covering the time period from the 1950s to the 1980s. The topographic maps were obtained from various sources in Kenya and the UK. Most of maps were collected in Kenya provided by the Survey of Kenya and several local county governments' survey and urban planning departments. Additionally, some maps were obtained from archives in Great Britain, namely the Bodleian Library of the University of Oxford and the Cambridge University Library. All the acquired maps were originally created and published by the Directorate of Overseas Surveys (DOS), the War Office, General Staff, Geographical Section and the Survey of Kenya. The road data was extracted from these maps using deep learning techniques, including a Python script and ArcGIS Pro “Multi-Task Road Extractor” tool.

The dataset contains a shapefile with the following attributes:

Attribute	Data Type	Description
FID	Object ID	Unique ID for each feature generated by ArcGIS Pro.
Shape	Geometry	The shape of the features captured. In this case a Polyline.
RoadType	Long Integer	The type of road, represented as an integer, derived from its categorization on the corresponding topographic map.
RoadName	Text	Full name of the road type, derived from its categorization on the corresponding topographic map.
MapYear	Long Integer	The publication year of the topographic map, where the road was extracted from. If the value is “0”, the published year of the map is unknown, meaning the map was available as a clip of the data frame only without marginal information.
SHEET_NO	Text	Refers to the sheet number of the topographical map as assigned by the Survey of Kenya.
Length	Double	The length of the road feature in meters.

Acknowledgements:

This research was funded by the German Research Foundation (DFG) through the collaborative research centre “Future Rural Africa” funding code TRR 228/2.

Please cite the datasets as follows:

Kramm, T., Nyamari, N., Moseti, V., Klee, A., Vehlken, L., Anderson, D. M., Bogner, C., Bareth, G., 2024. Historical road network of Kenya (1950s – 1980s) extracted from topographic maps (Version 1.0). TRR228 Database (TRR228DB). DOI: [10.5880/TRR228DB.18](https://doi.org/10.5880/TRR228DB.18).

Dataset preview:

