

Data Release Statement

GRID3 DRC Haut-Lomami and Tanganyika Settlements, Version 01

October 2022

Abstract

This document outlines the methodology and data sources used for constructing the *GRID3 DRC Haut-Lomami and Tanganyika Settlements, Version 01* dataset. The dataset consists of settlement points with name, location, health zone and health area attributes in the aforementioned provinces in the Democratic Republic of the Congo (DRC). Limitations and use constraints are also provided.

Dataset citation

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Data Use Constraints

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Contacts and Data Queries

GRID3 appreciates feedback regarding this dataset, including suggestions, discovery of errors, difficulties in using the data, and format preferences.

Please contact: Geo-Referenced Infrastructure and Demographic Data for Development (GRID3), data.queries@grid3.org



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I. Introduction

The *GRID3 DRC Haut-Lomami and Tanganyika Settlements, Version 01* dataset consists of settlement points with names and health catchment area attributes in the provinces of Haut-Lomami and Tanganyika in the Democratic Republic of the Congo (DRC). This dataset is one of three (3) datasets (along with the Health Facilities and Health Catchment Area Boundaries datasets) released together.

To conduct this work, the Center for International Earth Science Information Network (CIESIN) at Columbia University engaged with the mandated authorities in the DRC's Ministry of Health who support data collection and development for vaccination planning. Local healthcare workers were also directly involved in the mapping of the health catchment area boundaries at participatory events coordinated with in-country provincial coordinators and mappers, and in field data collection from July to September 2019. This data was then updated following the reception of data collected in the field between 2019 and 2021 by the DRC National Malaria Elimination Program (PNLP).

This work is part of the GRID3 Mapping for Health in the DRC project. Supported by Gavi through its INFUSE initiative, GRID3 Mapping for Health is a Ministry of Health initiative, delivered in partnership with Flowminder and CIESIN, and in collaboration with WorldPop at the University of Southampton, Kinshasa School of Public Health, UNFPA, UNOPS, and Novel-T. GRID3 Mapping for Health is a continuation of previous work conducted and/or supported in the DRC by the Geo-Referenced Infrastructure and Demographic Data for Development (GRID3) programme.

II. Methodological Approach

Summary

The *GRID3 DRC Haut-Lomami and Tanganyika Settlements, Version 01* dataset was originally created through an extensive fieldwork exercise from July to September 2019. The version includes additional data from the PNL, which greatly added to the number of settlement points in this dataset.

Details

Phase 1: 2019 Field data collection

With the support of provincial and national health authorities, local healthcare workers ("head nurses", "health zone management staff", and "head doctors of the health zones") and GRID3 GIS specialists ("mappers" and "provincial coordinators") engaged in a participatory mapping process in Haut-Lomami and Tanganyika from July to September 2019. This mapping process occurred at the level of the health zone (an operational unit made up of approximately 15-20 health areas).

Mappers were deployed to the health zones, where they organised participatory mapping meetings with local healthcare workers. They also trained head nurses to collect data on settlements, health facilities, and other points of interest in their respective health areas using an ODK-based smartphone application. Mappers then used this information to delineate health area boundaries. This data was then sent back to CIESIN for additional quality checks.

Phase 2: Integration of data from the PNL

In October 2021, GRID3 received access to a large settlement point dataset collected during a bednet distribution campaign by IMA World Health and owned by PNL. This dataset was combined and consolidated with GRID3's previous settlement data from these two provinces. Only data from PNL and GRID3 were used. In total, the PNL data added more than 3,500 points.

Source	Description
PNL	Programme National de Lutte contre le Paludisme (National Malaria Elimination Programme) of the DRC
MSP/CIESIN	DRC's Ministry of Public Health (Ministère de Santé Publique) and the Center for International Earth Science Information Systems)

III. Dataset Description(s)

The *GRID3 DRC Haut-Lomami and Tanganyika Settlements, Version 01* dataset consists of one layer: settlement point data and a table with the field descriptions for the layer. The data are available for download as Esri file geodatabase (gdb) files packaged within zip folders.

File name: GRID3_DRC_HLTN_settlements_names_V01.gdb

The following layers are included in the gdb:

`codebook_settlements_names`
`GRID3_DRC_HLTN_settlements_names_V01`

Extent: Democratic Republic of the Congo: Haut-Lomami and Tanganyika Provinces

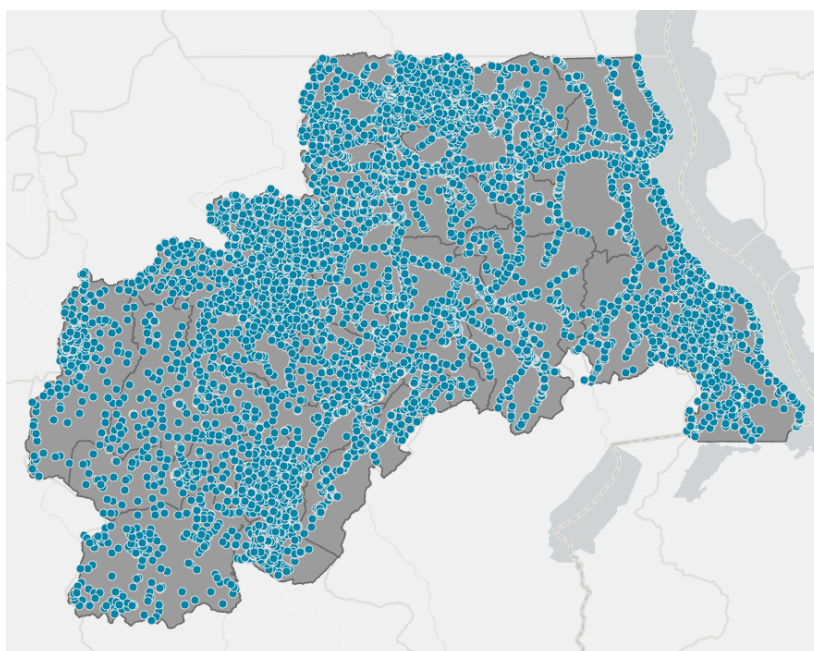
North: -4.97517681106092

West: 23.7154293063175

East: 30.5882263186897

South: -9.91798019413062

Coordinate system: GCS WGS 1984



The map above shows settlement points collected in Haut-Lomami and Tanganyika provinces.

Codebook

Field Name	Field Description
OBJECTID	Automatic field number
Shape	Shape geometry of the layer
pays	Name of the country
province	Name of the province
antenne	Name of the antenna
zonesante	Name of the health zone
airesante	Name of the health area
village	Name of the locality (town, quarter, village, or hamlet)
villageotyp	Type of administrative entity (locality, avenue, block, etc.)
villagealt	Other name of the locality
access	Road accessibility mode
enclav	Site isolation at certain times of the year
enclavdate	If isolated, during which quarter of the year?
source	Data provenance
date	Date of last edit
notes	Comments
lat	Latitude in decimal degrees
lon	Longitude in decimal degrees
altitude	Altitude in metres
precision	Accuracy (GPS)

IV. Version History

This final version includes additional field collected data in both provinces and provides recently updated settlement names. Older data that had not been recently field collected was removed from the dataset.

V. Known Data Limitations

The spatial accuracy of the settlement data is dependent on both the accuracy of the point data collected in the field as well as on the correctness of the edits made to the collected data throughout the validation process. In general, it was assumed that the field-collected data were more accurate than the previously compiled settlement point data. Temporal mismatches exist among the point datasets, the settlement polygons, and the satellite imagery used to perform quality checks. This may lead to settlements not being identified or the inclusion of abandoned settlements.

Known issues

- Spelling mistakes (spelling may vary colloquially and between organisations).

VI. Disclaimer

CIESIN, Columbia University, and the GRID3 programme follow procedures designed to ensure that data disseminated by the project are of reasonable quality. If, despite these procedures, users encounter apparent errors or misstatements in the data, they should contact GRID3 at data.queries@grid3.org.

CIESIN, Columbia University, and their sponsors do not guarantee the accuracy, reliability, or completeness of any data provided. We provide this data without warranty of any kind whatsoever, either expressed or implied, and shall not be liable for incidental, consequential, or special damages arising out of the use of any data provided.

VII. Acknowledgments

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Acasus, Switzerland
Agence Nationale d'Ingénierie Clinique, de l'Information et de l'Informatique de Santé (ANICiS), DRC
Bluesquare, Belgium
Bureau Central du Recensement (BCR), DRC
Centers for Disease Control and Prevention (CDC), USA
Direction d'Etudes et Planification (DEP), DRC

Direction des Soins de Santé Primaires (DSSP), DRC
 Division du Système National d'Informations Sanitaires (DSNIS), DRC
 Division Provinciale de la Santé (DPS) du Haut-Lomami and Tanganyika
 Ecole de Santé Publique de Kinshasa (ESPK), DRC
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 Global Affairs Canada (GAC), Canada
 Global Good
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 The International Medical Corps (IMC)
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 Ministère de la Santé publique, Hygiène et Prévention, DRC
 Ministère du Genre, Famille et Enfant, DRC
 Novel-T, Switzerland
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 PATH, DRC
 Programme Elargi de Vaccination (PEV), DRC
 Programme National de Lutte contre le Paludisme (PNLP), DRC
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