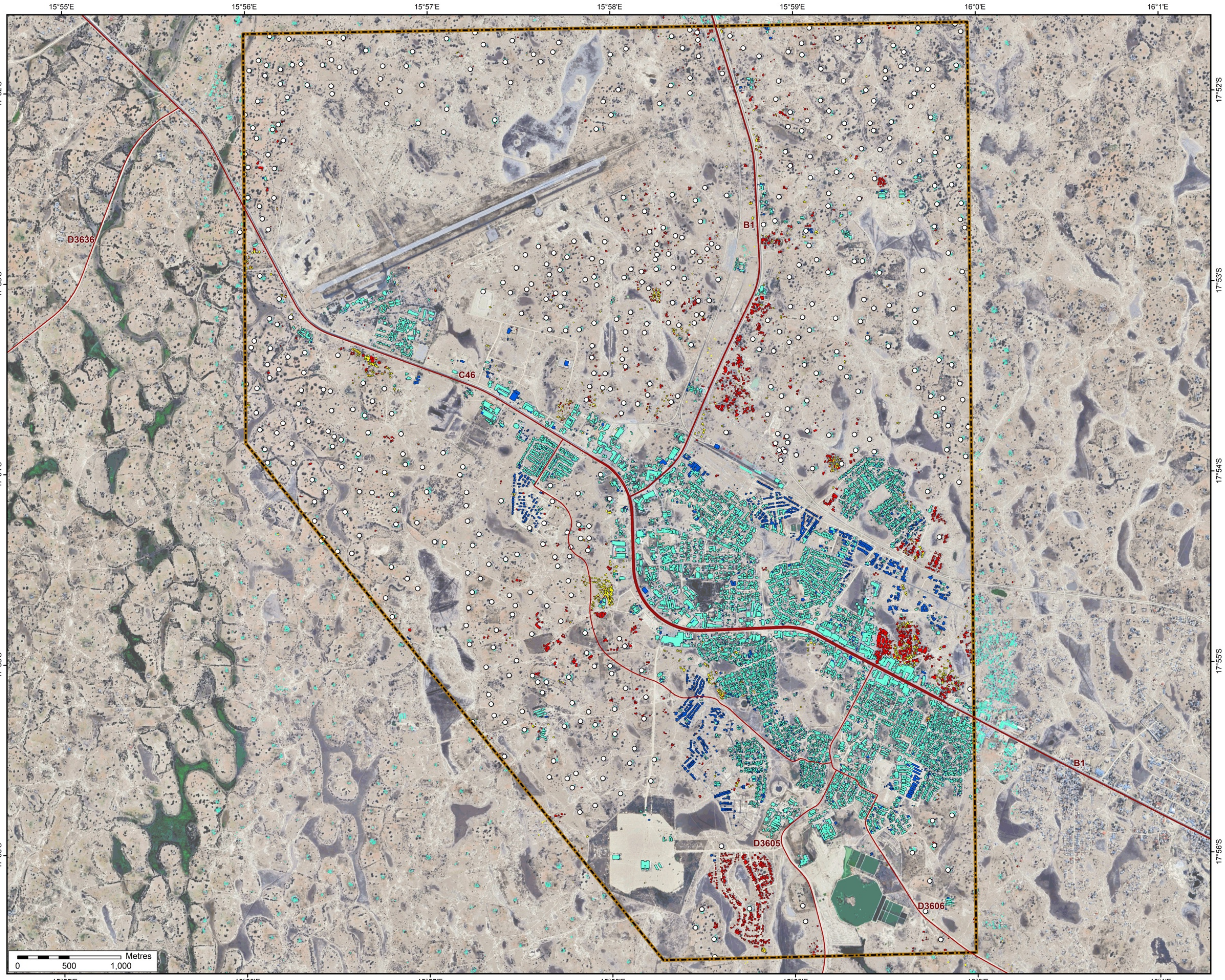
Ondangwa: The distribution and growth of informal and formal buildings and houses between 2016 and 2023



BUILDINGS

The map depicts distinct building and housing structures present in 2016 and 2023. Buildings in turquoise and blue show the distribution and growth of **formal** structures between 2016 and 2023 while those in yellow and red show the distribution and growth of **informal** structures in the same period. The map does not claim to identify all informal houses but rather to identify areas in which informal houses are aggregated. Some of these 'aggregations' may be informal markets. White circles indicate traditional houses; these houses are located within clearly visible boundaries which signify secure traditional land rights. Planned informal areas provide basic services to enable a future transition to formal housing.

Key

Buildings and houses 2016-2023

Formal
- 2016 and earlier
- 2016-2023

Informal
- 2016 and earlier
- 2016-2023

Traditional

Town Boundary

N

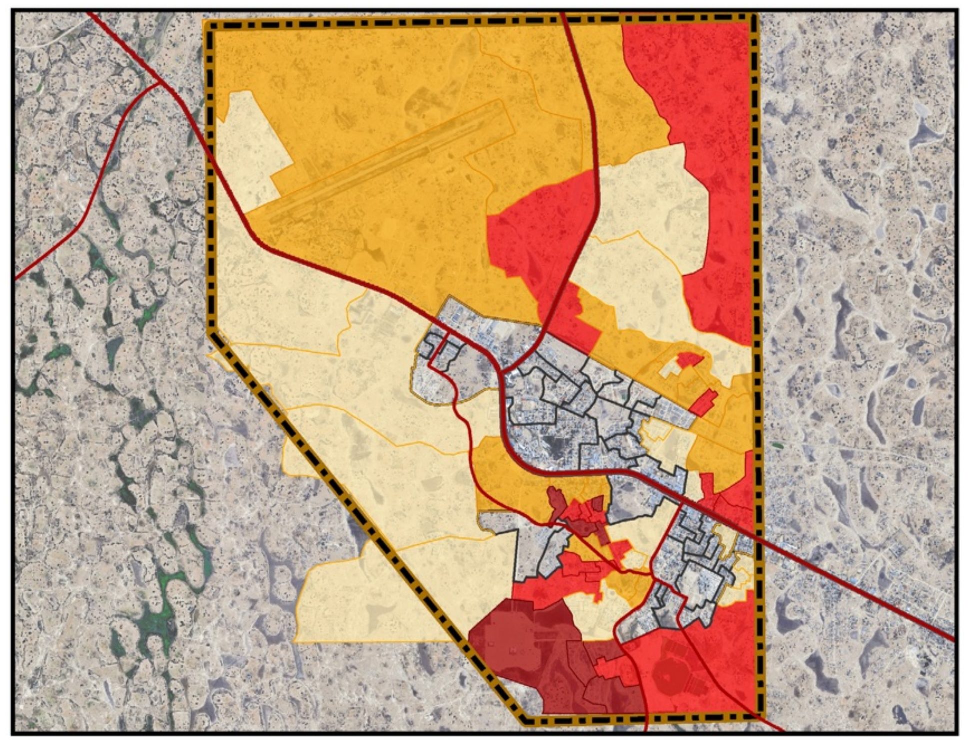
Planned informal area

CENSUS DATA

Number of all households and informal households in the Ondangwa townland area as recorded by the National Housing and Population Censuses of 2001, 2011 and 2023.

Year	Total Households	Informal Households	Percent Informal
2001	2,350	974	42
2011	5,090	2,054	40
2020	5,919	2,039	34
2023	8,697	3,225	37

Informal houses comprise improvised dwellings made from corrugated iron, prefabricated materials, wood/ poles, sticks, reeds etc.



Percentage informal households by Enumeration Area (2023)

- 0-20
- 21-40
- 41-60
- 61-80
- 81-100

These spatial layers were derived from satellite data that captures all roof structures present in an area. Two primary data sets were used: Open Buildings 2.5D Temporal Dataset and Google-Microsoft Open Buildings - combined by VIDA. Probable informal houses were identified based on their informal spacing, absence of visible boundaries around houses, and variable or irregular shapes. These areas were extracted from the full Buildings dataset through an initial filtering process which excluded structures with an area less than $10m^2$ or greater than $100m^2$. The 2023 background image was obtained from Google Earth.

DW DEVELOPMENT WORKSHOP NAMIBIA

RAISON