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USE OF GEOSPATIAL INFORMATION ON SDG INDICATORS

-Progress & National Initiatives-

By

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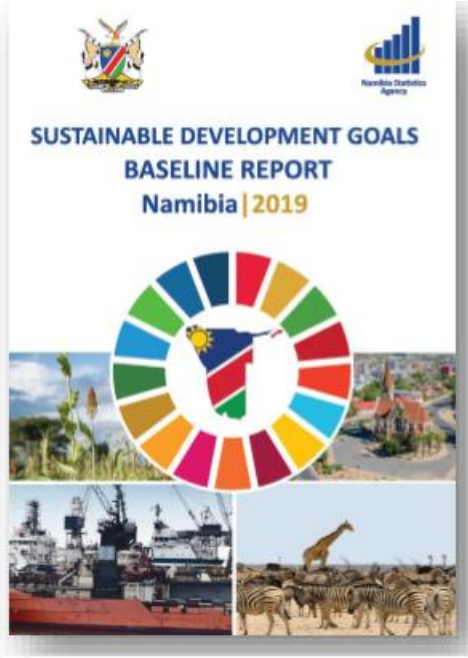
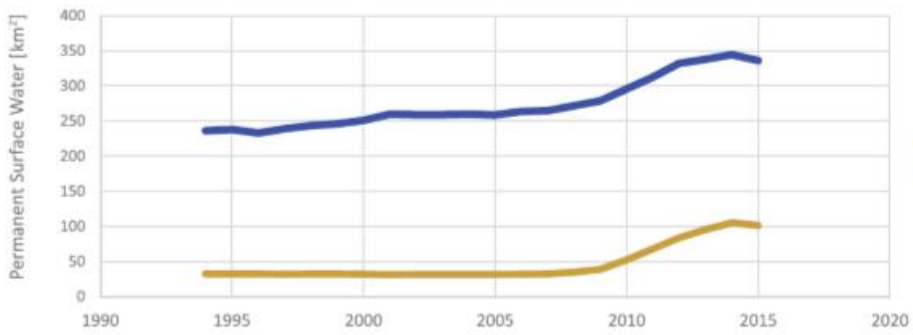
SDG Progress

The SDGs in Namibia

- ❑ Baseline Report launched in July 2019.
- ❑ National effort with strong support from international development agencies (GIZ & UNDP Namibia).
- ❑ Showing the starting condition and recent trends.
- ❑ Enabling governmental stakeholders , NGOs, businesses, civil society and other decision- makers to have a holistic picture on the country.





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SDG INDICATOR COVERAGE

- Namibia is in the position to report on 162 indicators (including duplicate ones) of the 244 global SDGs Indicators.
- Namibia has 3 administrative levels (National, Regions and Constituencies)
- SDG reported at the first 2 levels.

	Namibian SDG Indicators	Overall SDGs Indicators	Coverage
SDG 1	9	14	64%
SDG 2	11	13	85%
SDG 3	23	27	85%
SDG 4	7	11	64%
SDG 5	9	14	64%
SDG 6	7	11	64%
SDG 7	4	6	67%
SDG 8	13	17	76%
SDG 9	10	12	83%
SDG 10	7	11	64%
SDG 11	8	15	53%
SDG 12	3	13	23%
SDG 13	5	8	63%
SDG 14	4	10	40%
SDG 15	13	14	93%
SDG 16	11	23	48%
SDG 17	18	25	72%
Coverage	**162**	**244**	**66%**

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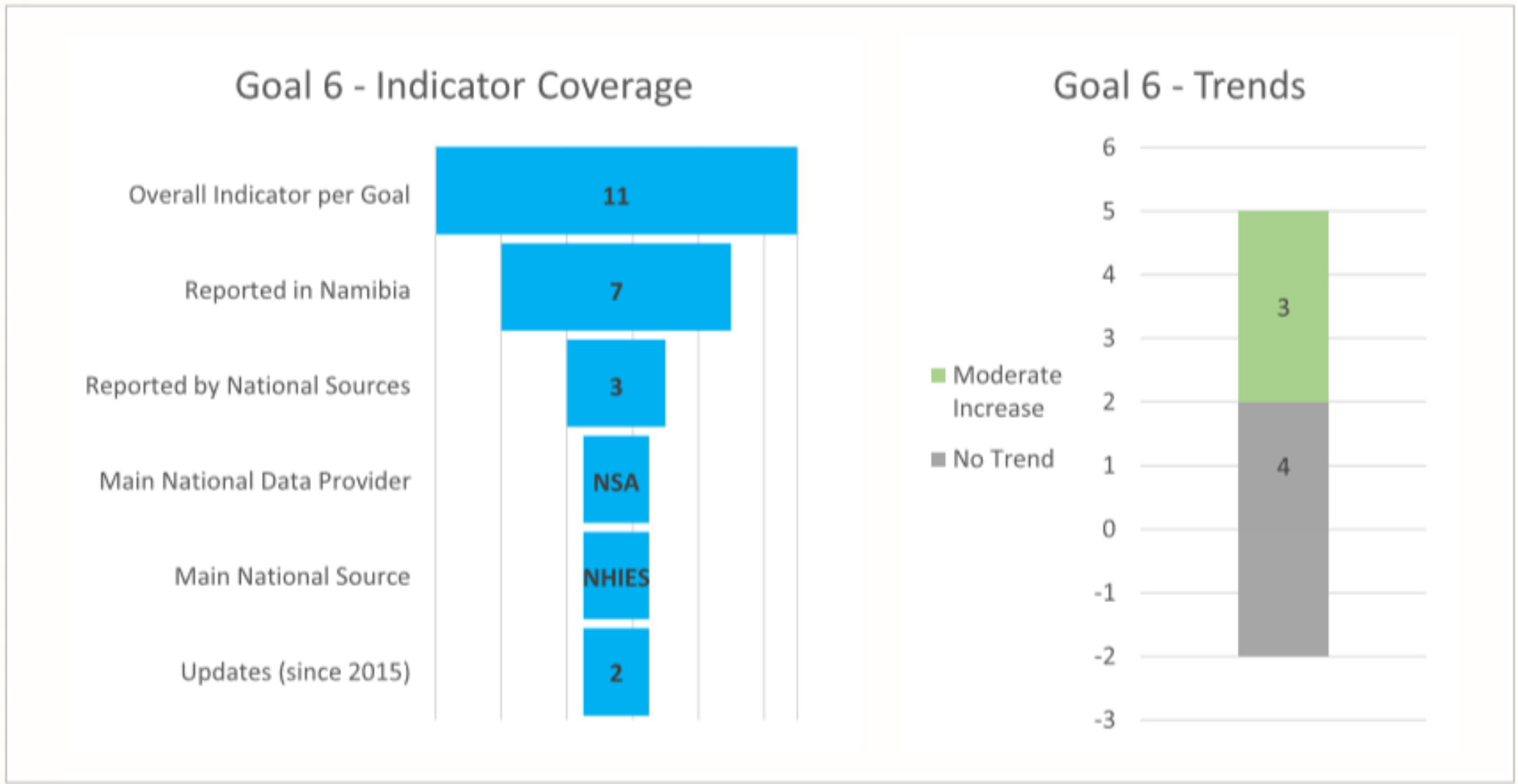

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Target 6.1- By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

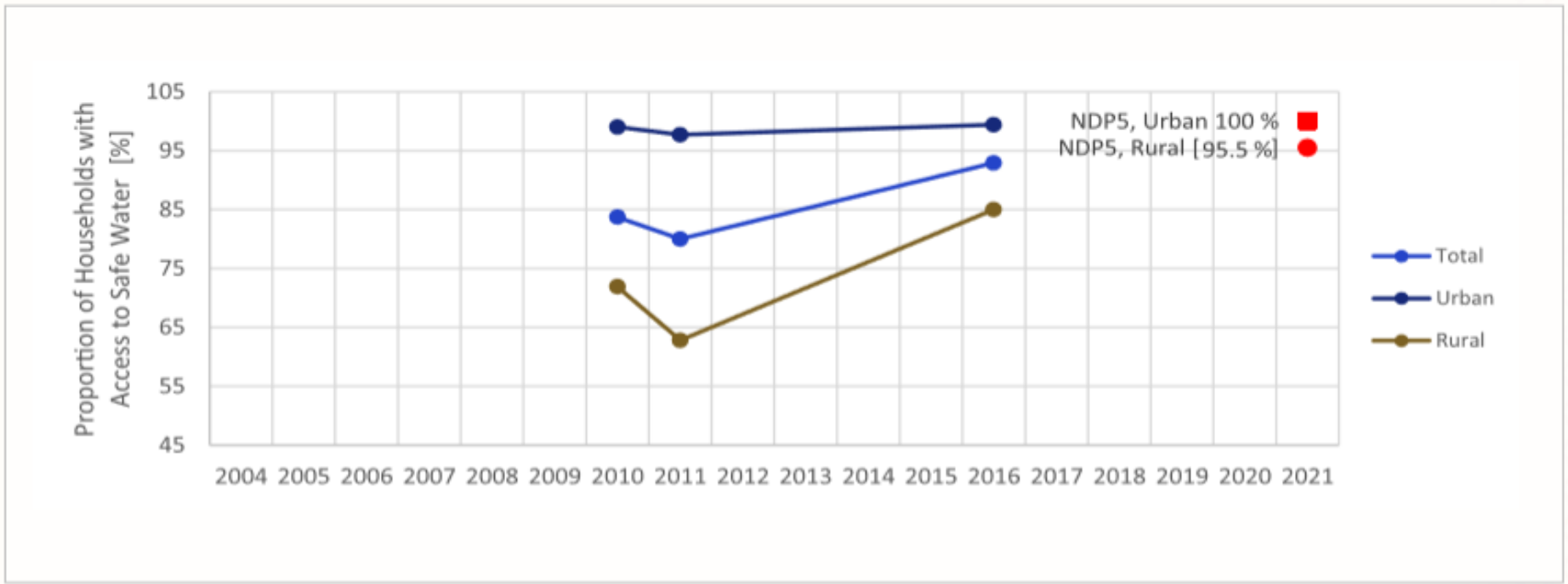
Indicator 6.1.1

Proportion of population using safely managed drinking water services

National Definition

Proportion of households with access to safe water (piped water, water from boreholes and protected wells).

Origin	National	**Disaggregation**	U, R, Region
Data Provider	NSA	**Source**	NHIES, NIDS, PHC
Frequency	5 years	**Tier II**	



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Geographic Presentation of Indicator 6.1.1 – Access to Safe Water

Source: NHIES

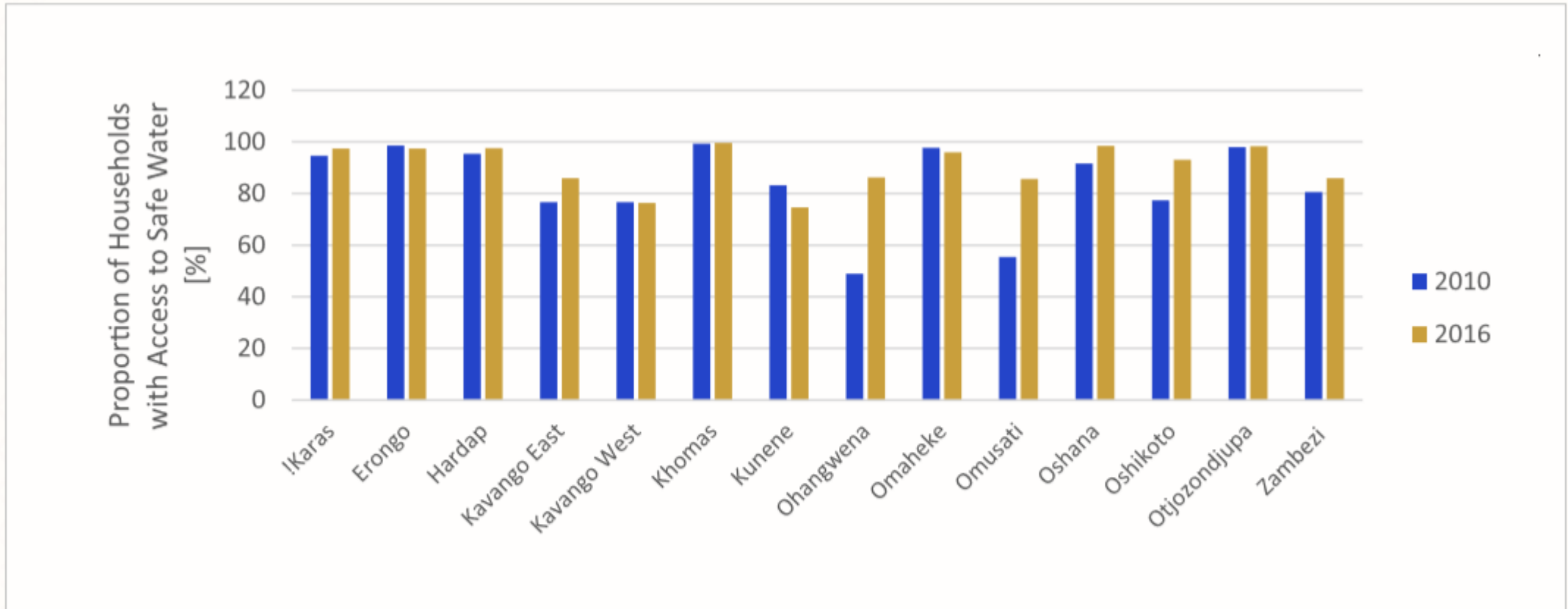

Figure 7.77 – Indicator 6.1.1 - Proportion of Households with Access to Safe Water – Regions

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Evaluation of EO Solutions

- ❑ Published 7 July 2019
- ❑ Evaluated three SDGs:
  - Change of water-related ecosystems (6.6.1), Rural population with access to roads (9.1.1), Forest coverage (15.1.1) and Land degradation (15.3.1).

remote sensing

MDPI

Article

Evaluation of Earth Observation Solutions for Namibia's SDG Monitoring System

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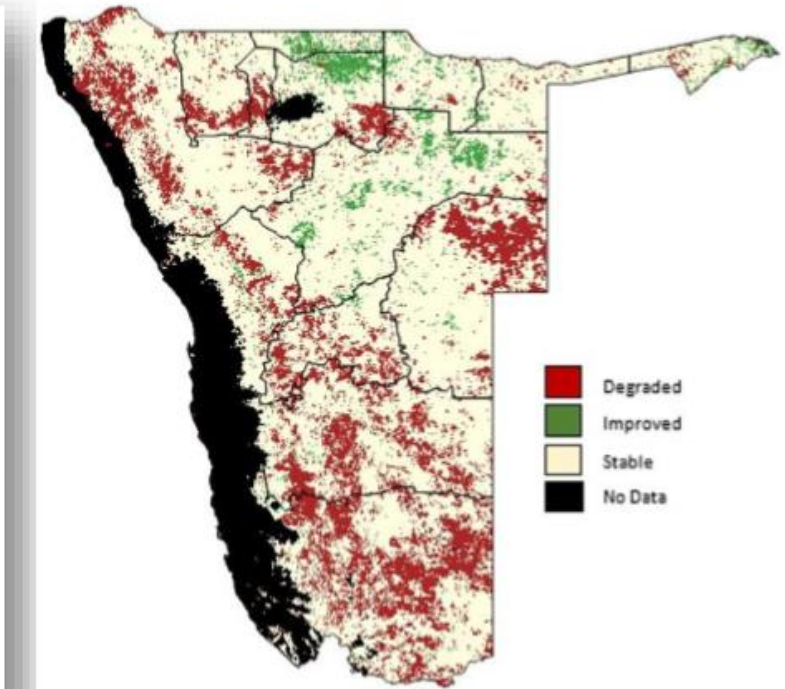
Abstract: In recent years, with more open data platforms and tools available to store and process satellite imagery, Earth Observation data have become widely accessible and usable especially for countries previously not in the possession of tasking rights to satellites and the needed processing capacity. Due to its ideal scanning and acquisition conditions for low cloud coverage imagery, Namibia aims to make use of this new development and integrate Earth Observation data into its national monitoring system of sustainable development goals (SDG). The purpose of this study is to assess the potential of open source tools and global datasets to estimate the national SDG indicators on *Change of water-related ecosystems* (6.6.1), *Rural population with access to roads* (9.1.1), *Forest coverage* (15.1.1) and *Land degradation* (15.3.1). The results are set into perspective of existing information in each particular sector. The study shows that, in the absence of in-situ measurements or data collected through surveys, the Earth Observation-based results represent a high potential to supplement the national statistics for Namibia or to serve as primary data sources once validated through ground-truthing. Furthermore, examples are given for the limitations of the assessed Earth Observation solutions in the context of Namibia. Hence, the study also serves as valuable input for discussions on a consensus on national definitions and standards by all stakeholders responsible for releasing official statistics.

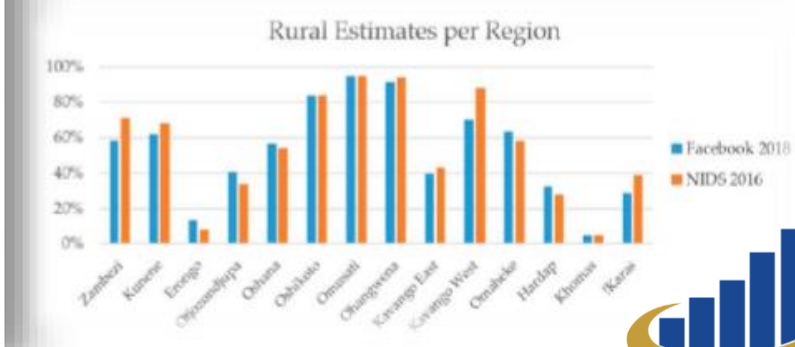
Keywords: sustainable development goals (SDG) monitoring; Namibia; earth observation; land degradation; forest coverage; access to roads; water surfaces

1. Introduction

In a historic United Nations (UN) summit in September 2015, world leaders adopted Resolution 70/1 "Transforming our World: the 2030 Agenda for Sustainable Development" through the General Assembly [1]. In July 2017, a common Indicator Framework was adopted through Resolution 71/313 to monitor the progress of the 17 Sustainable Development Goals (SDGs) that represented this transformation [2]. For a variety of indicators, Earth Observation (EO) solutions play a significant role in providing cost effective, standardized, reliable, historic, and frequently updated information to assess the change in a country [3]. Considering the universal nature of the implementation of the 2030 Agenda, it appears consequential to develop and implement international EO solutions to support the national monitoring of the SDGs. This paper contributes to the assessment of some of these universal solutions by sharing results and experiences of the attempt to integrate them into the official national reporting structures of Namibia.

As a sparsely populated large country with low cloud coverage [4] for most of the year, Namibia appears to provide promising conditions where, in the absence of comprehensive monitoring capacity through ground data, EO solutions can serve to provide consistent information on a national scale with frequent updates. For instance, conditions with respect to the cloud free requirement (< 10%





Mariathasan, V., Bezuidenhoudt, E., & Olympio, R. K. (2019). Evaluation of Earth Observation Solutions for Namibia's SDG Monitoring System. Remote Sensing, 11 (13). doi: https://doi.org/1

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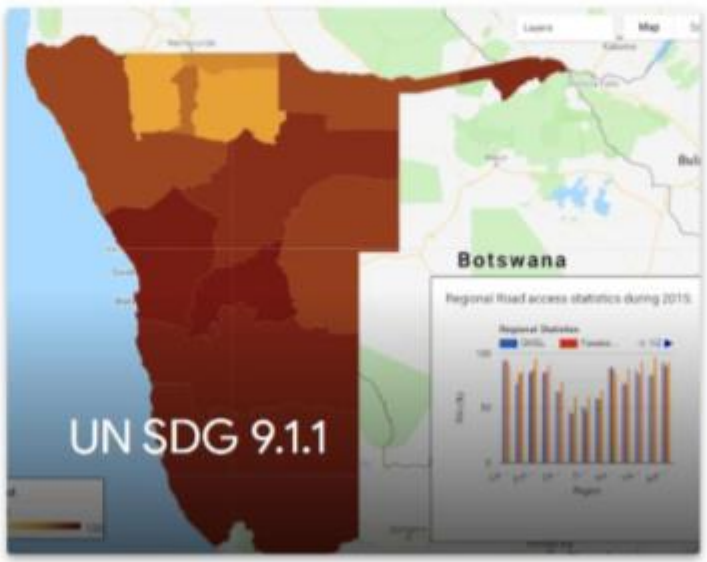
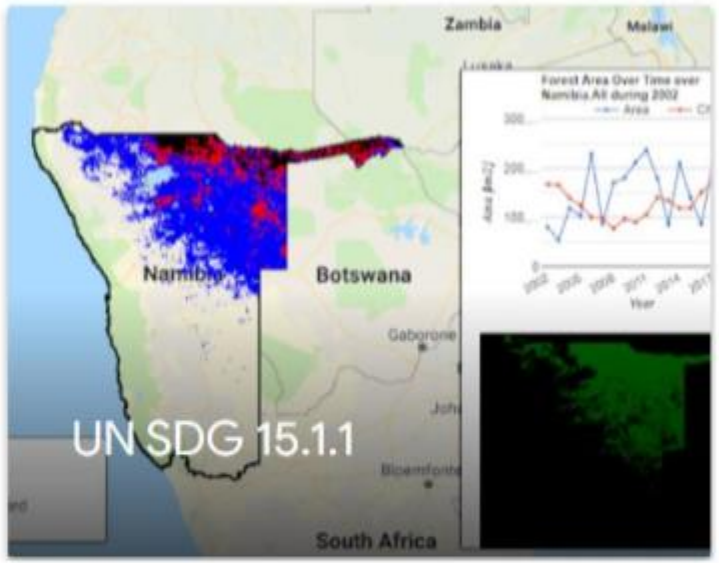
SDG 6.6.1, 9.1.1, 15.3.1

Change of water-related ecosystems (6.6.1)

Rural population with access to roads (9.1.1)





Forest coverage (15.1.1)

https://rayoly.users.earthengine.app/

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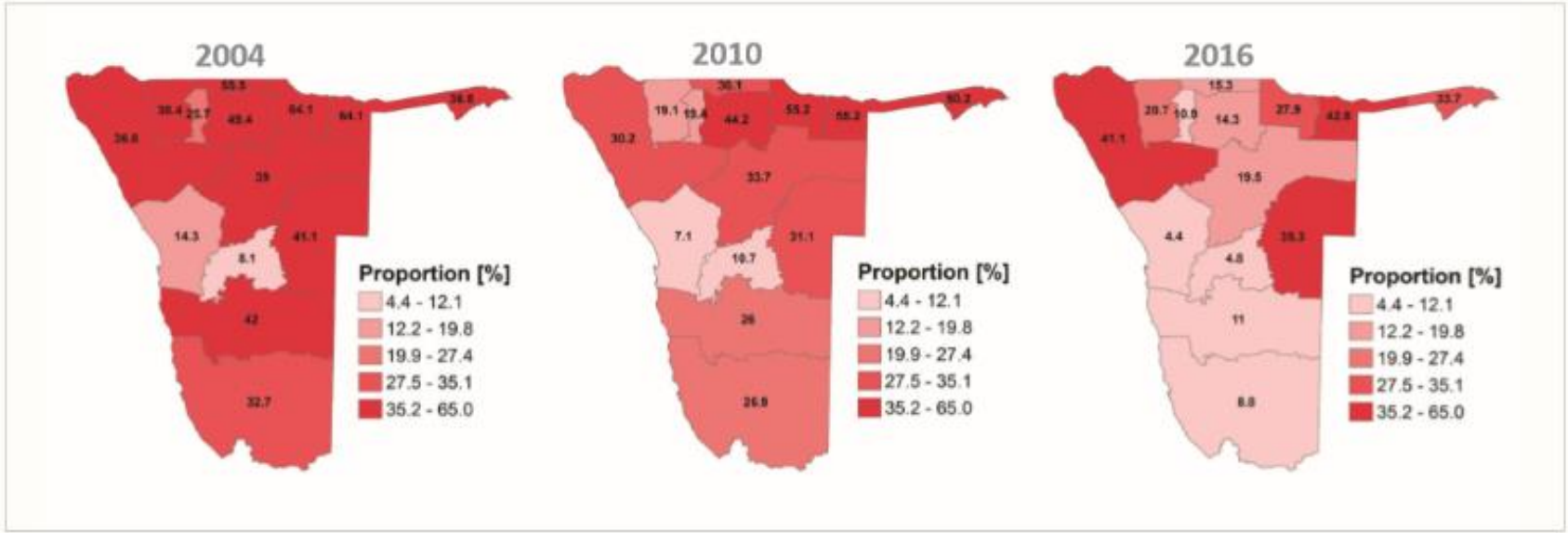
Geographic Presentation of Indicator 1.2.1 – Population below National Poverty Line (Poor)

Source: NHIES



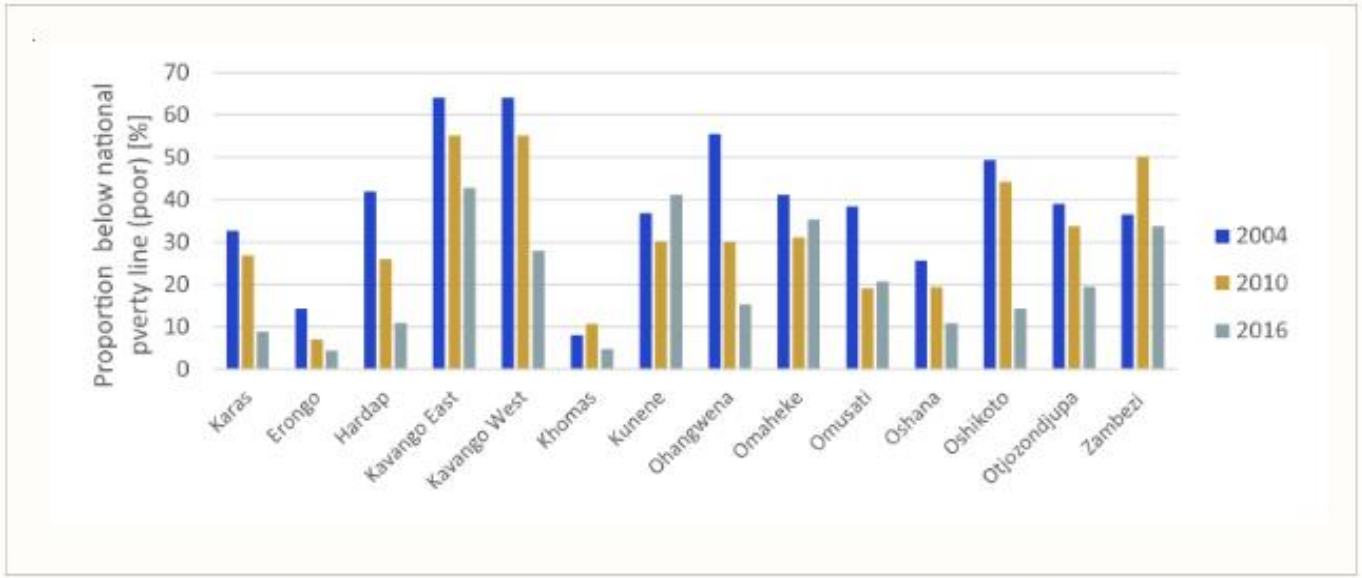


Figure 7.7 – Indicator 1.2.1 – Population below National Poverty Line (Poor) – Regions

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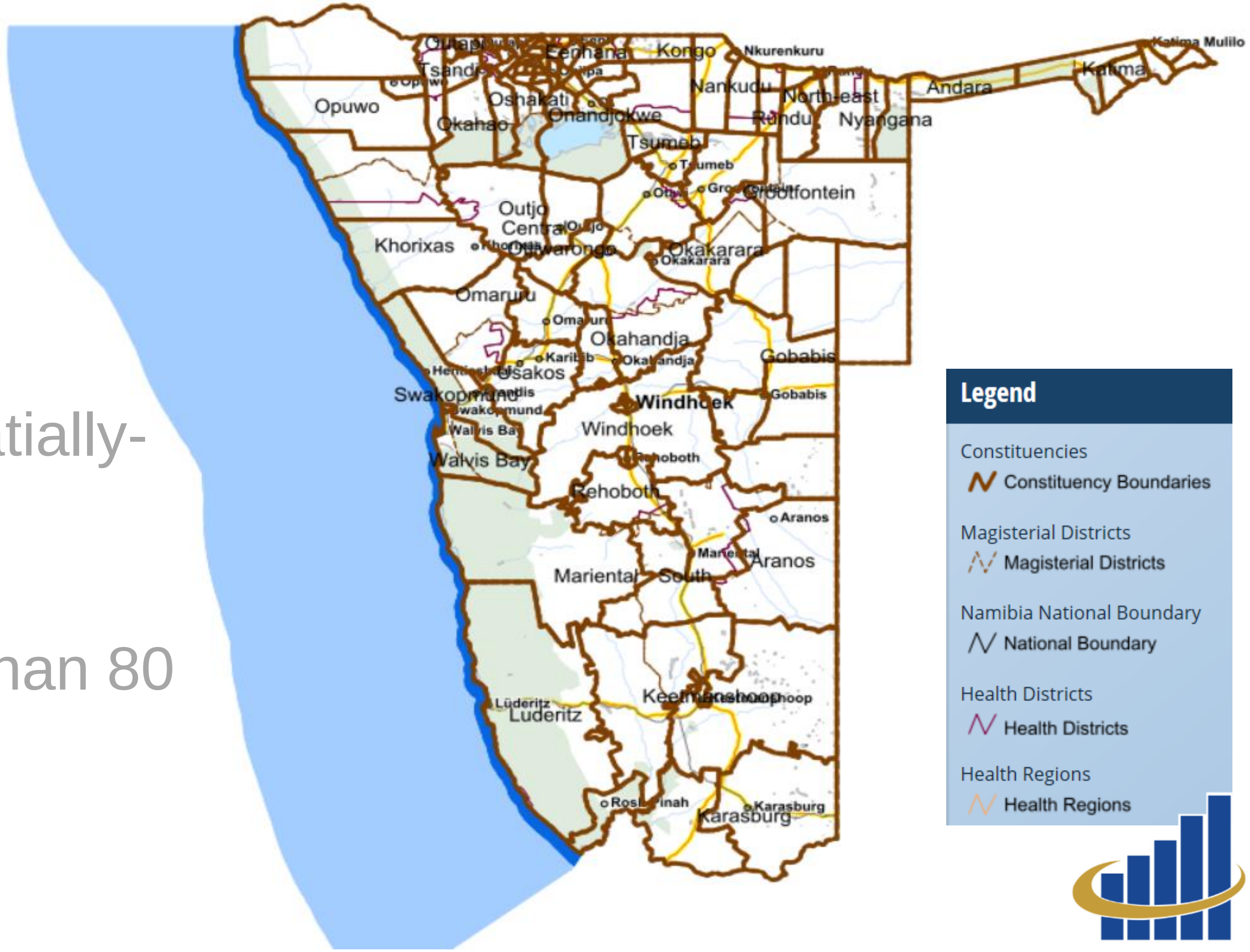
DISAGGREGATION OF STATISTICS BY GEOGRAPHY

1. National
2. Regional
3. Constituency
4. Rural/Urban
5. Any geography (if spatially-enabled)
6. Linked to census questionnaire (more than 80 data themes)



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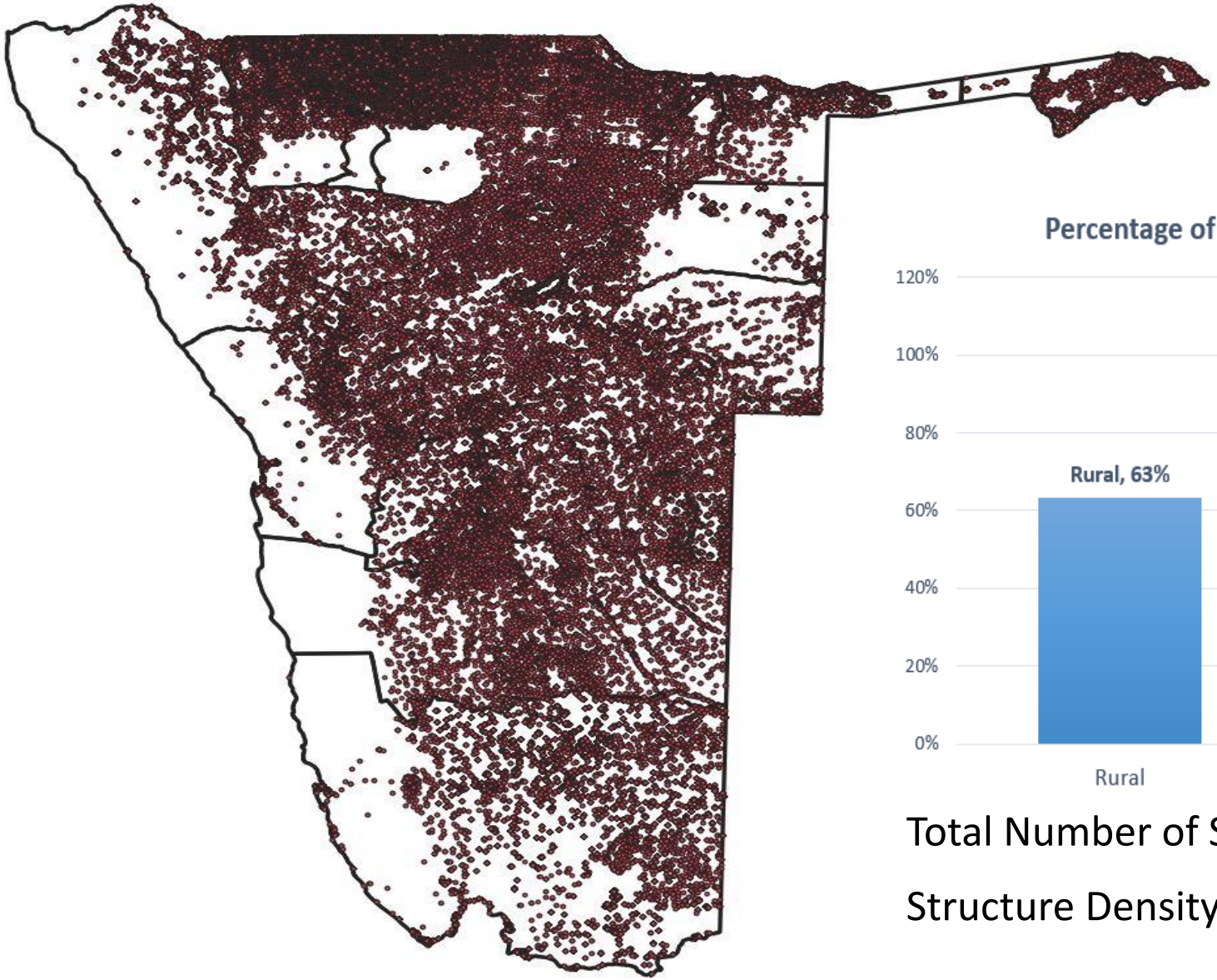
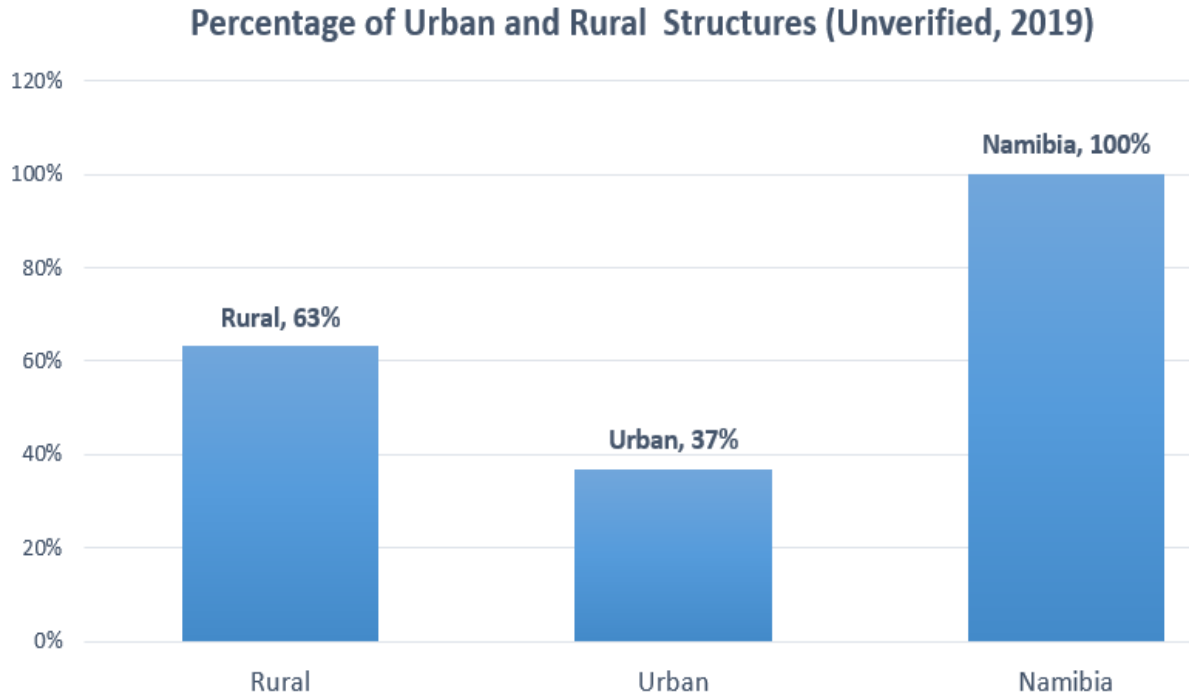
Plan for 2021 Population & Housing Census





Total Number of Structures = 1,171,464

Structure Density per Sqkm^2 = 1.42

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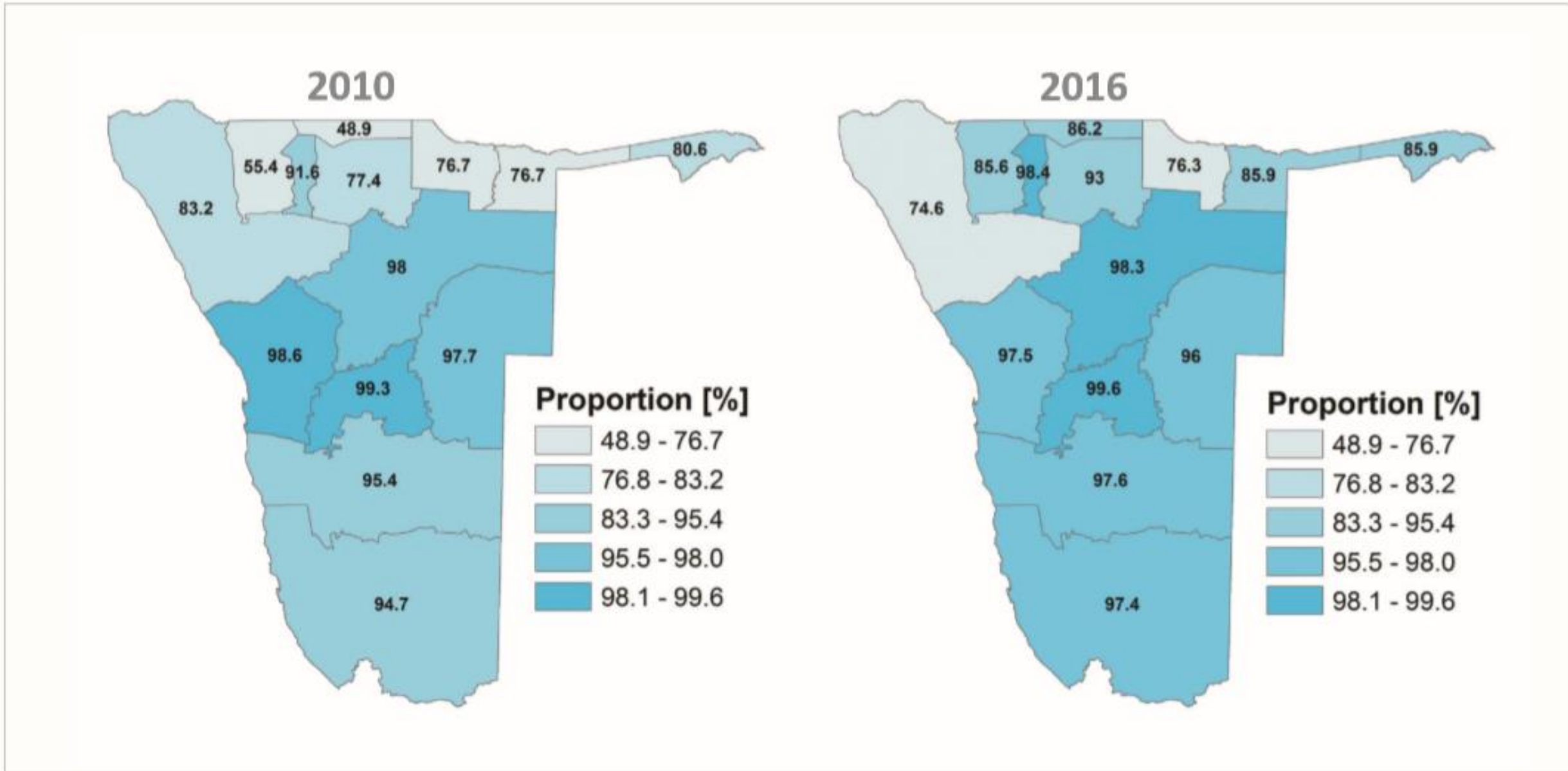
North Western Windhoek Informal Settlements

Geographic Presentation of Indicator 6.1.1 – Access to Safe Water

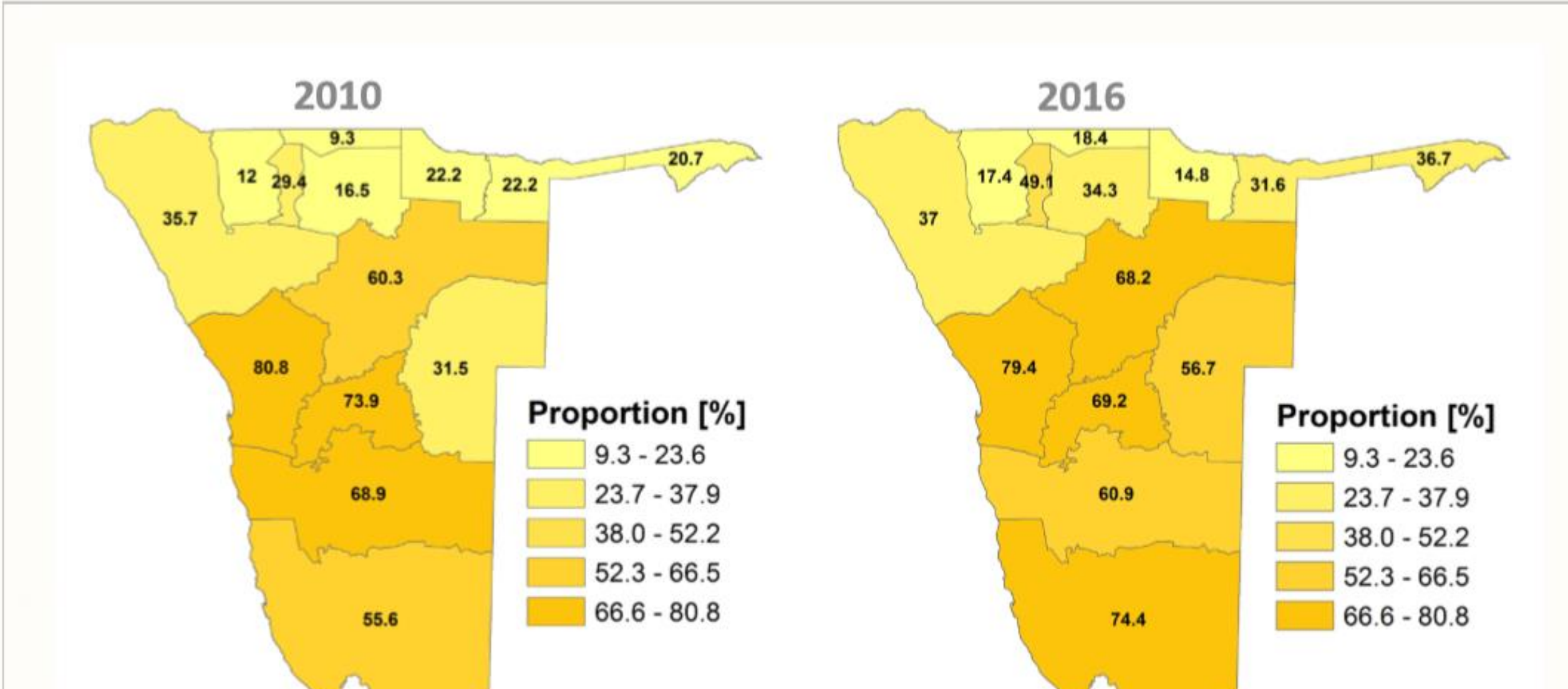
Source: NHIES



Linking Statistics to Geography – Rural Electrification

Indicator 7.1.1

Proportion of population with access to electricity.



THANK YOU

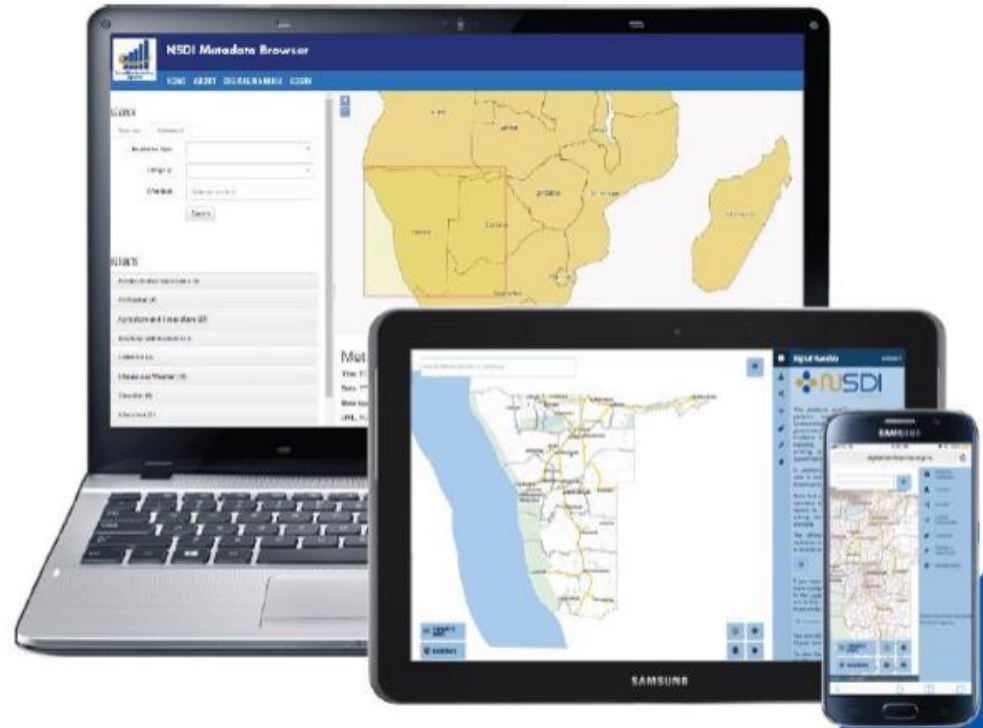
1. NSA MOBILE APPLICATION

Download the NSA App

GET IT ON Google Play

Download on the App Store

2. NSDI Geographic Portal



https://digitalnamibia.nsa.org.na/

http://geofind.nsa.org.na/

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