## The Emergence of Namibia Openstreetmap Community, Supporting GIS Data Generation for Informal Settlements

## Menare Royal Mabakeng, Jennilee Kohima, Laina Alexander and Vanessa Simataa (Namibia)

## Key words: Digital cadastre; Geoinformation/GI; Informal settlements; Land distribution; Land management; Land readjustment; Legislation; Low cost technology; Keyword 1; Keyword 2; Keyword 3

## SUMMARY

Informal settlements and exclusion are synonymous. The seemingly unconventional way informal settlements emerge automatically excludes such settlements from normative planning approaches. Normative planning follows a very traditional inflexible approach, whereby all planning processes are completed before people inhabit such spaces. Limited data on informal settlements households protracts planning processes and leads to low prioritization of development in those areas. This makes it a challenge for communities to access services. At most times the exclusion in planning is because of no data on settlements. The majority of informal settlements in Namibia have limited to no access to individual water connections, toilets, or tenure security. Residents are at most times looked at as beneficiaries of planning processes rather than partners in development. To illustrate opportunities for people-centred planning and integration of OpenStreetMap data in planning, the study employed a qualitative research design by using a series of interviews with targeted stakeholders in the field of GIS and land administration. The literature review focused on case studies on the use of Volunteered Geographic Information in land administration. Using data from the volunteer community of Shack Dwellers Federation of Namibia (SDFN), the study adds to new knowledge on the wealth of information available that can be integrated in Land Information Systems of Local Authorities. Opportunities in the use of geographic data for creation of land information systems produced through volunteer efforts in Namibia can close the data gap for informal settlements. A discussion on how volunteered geographic data can be used in the planning process and integrated in the National Spatial Data Infrastructure is expounded upon. Data creation not only benefits the future users but also producers. The use of opensource platforms like OpenStreetMap is essential in contributing towards youth/community empowerment through training and acquisition of digital skills and creating visibility of informal settlements as demonstrated by the youth members of the SDFN. In addition, the study shows how the Namibia Statistics Agency (NSA) can benefit from the integration of volunteered geographic data within the

The Emergence of Namibia Openstreetmap Community, Supporting GIS Data Generation for Informal Settlements (11565)

Menare Royal Mabakeng, Jennilee Kohima, Laina Alexander and Vanessa Simataa (Namibia)

National Spatial Data Infrastructure. A new initiative is also discussed on how the NSA is supporting local authorities in the creation and maintenance of spatial data which is vital for improved land administration. The study concludes with a discussion and recommendations on the potential of improving planning procedures, reducing conflicts and improving land management by integrating community-generated spatial data in the planning process.

The Emergence of Namibia Openstreetmap Community, Supporting GIS Data Generation for Informal Settlements (11565)

Menare Royal Mabakeng, Jennilee Kohima, Laina Alexander and Vanessa Simataa (Namibia)