

INTEGRATION OF LOCATION INFORMATION AND STATISTICAL DATA

Developing the Namibian NSDI



Namibia is establishing its National Spatial Data Infrastructure (NSDI) through the Namibia Statistics Agency (NSA). It has been a deliberate decision by the government of Namibia to marry location information with statistics in order to improve evidence-based development planning and socioeconomic intervention. The approach in Namibia is not unlike that found in Europe and



globally.

In the European Union, the European Commission's Directorate-General for Statistics (Eurostat) is one of the three prime movers behind the pan-European Spatial Data Infrastructure (SDI) programme, INSPIRE. More than 20 years ago, GIS technology was introduced in Eurostat via the Geographical Information System at the Commission (GISCO), a Eurostat service that promotes and stimulates the use of GIS within the European Statistical System and the Commission. At the global level, the United Nations Statistics Division (UNSD) has long supported development of the UN-wide and regional SDIs via the UN Regional Cartographic Conferences (UN-RCCs) in different regions of the world. UNSD also leads the new UN Global Geospatial Information Management (UN-

GGIM) initiative and regional UN-GGIM developments.

National SDI Policy

The NSDI in Namibia is covered by three articles in the Statistics Act while the rest of the articles relate to the production of other statistics. Since the operational requirements for establishing the NSDI were not fully addressed in the Statistics Act, a Committee for Spatial Data (CSD) finalised a national SDI Policy gazetted by parliament in March 2015. The aim of this policy is to amplify and operationalise the infrastructure by creating the framework for the development of a clear strategic plan. Through this policy, the NSA formulated a five-year Strategy and Action Plan.

SDI Priorities

The aim is to set up an infrastructure that is viable and useful within available limited resources and technical expertise. Thus the country is building its infrastructure based on six elements, prioritised as follows:

1. **Legal framework.** This is laid out in the Statistics Act and NSDI Policy. A formal NSDI governance structure is approved and will soon be fully operational once a cooperation framework is established.
2. **Cooperation.** This is the main priority aiming at mobilising high-level involvement through partnership agreements with spatial data custodians. Major ministries and several state-owned enterprises are currently in the process of engaging on NSDI Memorandums of Understanding (MoUs). A collaborative platform will be established once MoUs have been signed, hopefully from June 2016 onwards. The first level of partnerships targets 16 national organisations which deal with data of national coverage. The second level of collaboration is aimed at local authorities, about 54 in total.
3. **Standards.** The current priority is to develop the data quality and metadata profiles for the country. Draft profiles have been formulated and public inputs solicited. The Committee for Spatial Data is expected to approve the specifications in April 2016. Furthermore, specifications for the manner of collection of national spatial data and any application for exemption from such specifications, as permitted within the Act and Policy, have been established.
4. **Competence.** Namibia needs to develop competence in establishing NSDI.
5. **Advance Data Collection Calendar.** To immediately reduce duplications in data collection, thereby saving government limited resources, a national calendar will be set up as soon as the cooperation framework is established.
6. **Services.** The development of a metadata catalogue is a legal requirement. The catalogue will provide tangible evidence to the public and decision-makers of the importance of spatial data. A national geoportal is planned to build appetite for access to geospatial data and applications, strengthen political will and ensure widespread access to spatial data. NSA will develop the geoportal to

Political support

In Namibia, there is high political willingness from government to establish the NSDI. There is also high-level commitment from government agencies earmarked to participate in this infrastructure. The citizens have been made aware of the importance and usefulness of location data and the benefits of the NSDI for access to such data and applications. Due to the high levels of public engagement, there are equally high expectations from politicians, decision-makers and the citizens for the NSA to deliver on the NSDI. Consumption of spatial data has increased since the start of the NSDI programme.

Immediate challenges

As coordinating body the NSA is facing several challenges, especially when looking a year ahead. The three most immediate challenges are:

- *Lack of technical capacity.* There is insufficient capacity to develop technical components of the infrastructure. The NSA needs to develop a metadata catalogue immediately as a pilot to showcase the relevance of this infrastructure. This requires assistance. Capacity is also required in the enforcement of the NSDI standards.
- *NSDI Secretariat Structure.* Because of the enormous scope of the NSDI and high public and institutional expectations, the NSA formulated a structure to increase the number of staff for the NSDI Unit. However, it will take time to fill all the positions due to limitations in funding. The Agency operates on the basis of government appropriations.
- *Competencies in data custodians.* Targeted custodians to participate in the NSDI have varying levels of technical competencies. To ensure compliance with both the spatial data quality and metadata standards, these organisations must first build that competency where it does not exist at the moment.

Concluding remarks

It is of interest to note how quickly Namibia has moved in terms of accepting the need for a national SDI and then enacting the legislation, strategies and action plan to implement the NSDI in a controlled, viable and sustainable manner.

Authors

Alex Mudabeti is deputy director for spatial data and NSDI at the Namibia Statistics Agency.

Roger Longhorn is the secretary-general of the GSDI Association and was involved in developing the Namibian NSDI Strategy and Action Plan under contract to Compass Informatics Ltd of Dublin, Ireland.