

Geospatial SDG Indicators as a Tool for Territorial Management: The Uruguayan Experience from the National Directorate of Territorial Planning

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SUMMARY

This paper presents the experience of Uruguay's National Directorate of Territorial Planning (DINOT) in the development and implementation of geospatial Sustainable Development Goal (SDG) indicators, with a focus on Goal 11: Sustainable Cities and Communities. Recognizing the critical role of spatial data in understanding and managing urban challenges, DINOT initiated a national strategy to produce a set of geospatial indicators to support subnational governments in planning, monitoring, and adjusting territorial policies.

The main objective of this initiative is to reduce the technical and operational burden faced by departmental governments by providing them with standardized and globally aligned geospatial indicators. These include indicators such as access to public transport (SDG 11.2.1), proportion of urban population living in informal settlements (11.1.1), land consumption rate versus population growth rate (11.3.1), air quality monitoring (11.6.2), access to safe public spaces (11.7.1), and selected indicators from SDG 6 related to clean water and sanitation. These indicators are derived through the integration of satellite imagery, census data, land cover maps, and national statistics, following United Nations methodologies.

Expected results by the time of the FIG 2026 Congress include the production of national and subnational indicators, technical sheets, thematic reports, and the deployment of an interactive geospatial dashboard. Additionally, initial feedback from departmental governments will be collected and analyzed to refine the tools and promote local ownership and capacity building.

The conclusions of the paper highlight the value of this top-down approach to stimulate data-driven decision-making at the local level. By providing geospatial SDG indicators from the national level, DINOT facilitates the incorporation of these tools into local planning frameworks and encourages

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their progressive adoption and replication. This initiative also contributes to more equitable territorial governance and strengthens the national capacity to monitor progress toward the 2030 Agenda.

The experience of Uruguay demonstrates how geospatial data can be transformed into actionable knowledge for sustainable development, supporting multilevel coordination, open data policies, and evidence-based planning. It provides a replicable model for other countries seeking to enhance local implementation of global goals through geospatial innovation.