



Country Census made smooth with ArcGIS

The Kenya National Bureau of Statistics (KNBS) is a government agency under the Ministry of National Treasury and Planning. Its core mandate is collection, compilation, analysis, publication and dissemination of statistical information for public use, with an additional role of coordinating, monitoring and supervising the National Statistical System (NSS). One of its key projects is undertaking the National Population and Housing Census which is held every 10 years, with an upcoming Census scheduled for August 2019.

The Challenge

The Kenya National Bureau of Statistics faced a challenge in identifying enumeration areas during the pre-enumeration project with the location of households, homesteads, other features and landmarks associated with villages proving a major challenge.

Data collection consisted of a hand-held device, pen and paper which proved tedious and error prone. There was therefore need to have this information collected using an Application to avoid any errors.

The Statistics body also faced a challenge in processing data collected from the field. It would take lots of manpower and many hours to analyze the data collected. The management too was in need of real-time feedback on this sensitive exercise.

Synopsis

User

Kenya National Bureau of Statistics

Challenge

To achieve paperless field data collection, data processing, data sharing and real-time monitoring of the Pre-Enumeration project

Solutions

ArcGIS Enterprise, ArcGIS Online, Survey123 for ArcGIS, Operations Dashboard for ArcGIS

Result

Project data captured in the field using Survey123 could be integrated for real-time project monitoring in Operations Dashboard and for project reporting and analysis

“ArcGIS is a one-stop solution for any organization interested in collecting point data”

Rajab Mbaruku,
Head of ICT,
Kenya National Bureau of Statistics



A screenshot of the operations dashboard used during the pre-enumeration project

The Solution

The Kenya National Bureau of Statistics engaged Esri Eastern Africa to understand how location-based technology could benefit its staff across their entire organization.

The Statistics Agency deployed Survey123 for ArcGIS to reduce the use of paper documents in Field Data collection. Survey123 for ArcGIS is a simple and intuitive form centric data gathering solution that enables users to create, share, and analyze surveys. The app, included with ArcGIS Online, is designed to replace paper-based data collection and is available for smartphones, tablets and desktop computers, and works even when disconnected from the Internet.

KNBS management was able to get real-time updates on the exercise through an Operations Dashboard. A geospatial data dissemination app allowed for visualization and download of the spatial data, tables, graphs, charts as well as PDF documents. The public could now be able to consume user-friendly information on an online interactive platform created using ArcGIS Online.

“We are now able to produce interactive maps. These maps will assist us in our identification and tracing process. More variables from the data dictionary are available for our staff to make judgement of the location being visited.”

Hellen Muthoni, Senior Officer Population & Social Statistics.

Result

The Introduction of Survey123 in the pre-enumeration project has significantly improved the efficiency of the mapping operations with over 400 field workers currently using the mobile mapping application daily. Some of the benefits experienced so far include accurate data capture with sufficient data entry validation checks, improved data security with login credentials for accessing and editing data, better management of field operations, easier monitoring of the mapping progress in real time and faster processing and dissemination of the field data.

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