UBOS- Open Mapping Integration to Improve the National Census

Uganda Bureau of Statistics (UBOS) (Kampala, Uganda)

The Challenge

The Uganda Bureau of Statistics (UBOS) is the government agency mandated to collect and maintain baseline data across the nation. Its work is guided by various government stakeholders and then shared more broadly for analysis, program design and service delivery in communities. Prior to HOT's intervention, data collectors at UBOS would trek through counties and villages across the country with bundles of paper maps and GPS devices, inputting information by pen onto printed sheets. This approach was problematic for a number of reasons; the costs associated with printing paper maps and deploying GPS devices are huge and the slow process often meant that ground realities change mid-census, making the initial work almost futile. With one of the largest refugee populations in the world, the Ugandan government was in desperate need of updated, comprehensive data to better inform risk reduction and physical planning decisions across the country.

The Approach

By working with UBOS to co-identify their institutional pain points in data collection and, more specifically, how to best plan for the next national census, HOT focused its (training) approach on easing UBOS' burden of collecting mass data, enabling data sharing and better integration of OSM tools with their existing workflows to assemble information, such as risk data, which has never been available before. The keen interest within UBOS to adopt the collaborative digital map that OSM is and the open data it contains made the integration process simple. Since January 2018, GIS and ICT teams at UBOS have received a number of tailored training workshops, lessons and resources on OSM, how to upload and update their own data on the platform, how tools like QGIS, JOSM and mobile data collection tools can be used to transform their workload and enable a greater understanding of the type of data available to inform their decision-making. All workshops have been accompanied by continued support and mentoring post training to ensure UBOS staff genuinely learned how to apply the tool or technique to their workflow. Questions or need for clarification on a tool often come up after the initial training, therefore it is critical to provide continuous (phone or in-person) support to participants after a training to ensure knowledge gaps are addressed and troubleshooted as issues arise.

The Results

Over the last 15 months, UBOS has fostered a growth mindset, prioritizing the use and application of OSM data and open-source tools to support their duties and responsibilities in generating and maintaining national baseline data and indicators. From co-organizing mapathons, where buildings in areas across the country are remotely mapped and digitized by participants, to working alongside local community members to generate hyperlocal data using the very same digitized base layers, UBOS' notable commitment to using OSM tools and community generated data to guide their decision-making and census planning is exemplary of what is possible for other countries globally where available datasets are often scarce or unavailable to support evidence-based planning.