THE HORN OF AFRICA MAPPING EXPERIMENT
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INTRODUCTION

The Humanitarian Information Unit (HIU), a division within the Office of the Geographer and Global Issues at the U.S. Department of State, is working to increase the availability of spatial data in areas experiencing humanitarian emergencies. Built from a crowdsourcing model, the new "**Imagery to the Crowd**" process publishes high-resolution commercial satellite imagery, purchased by the United States Government, in a web-based format that can be easily mapped by volunteers. The digital map data generated by the volunteers are stored in a database maintained by OpenStreetMap (OSM), a UK-registered non-profit foundation, under a license that ensures the data are freely available and open for a range of uses (http://osm.org). Inspired by the success of the OSM mapping effort after the 2010 Haiti earthquake, the Imagery to the Crowd process harnesses the combined power of satellite imagery and the volunteer mapping community to help aid agencies provide informed and effective humanitarian assistance, and plan recovery and development activities.

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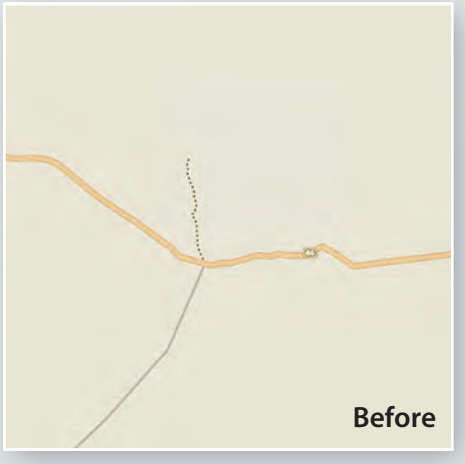
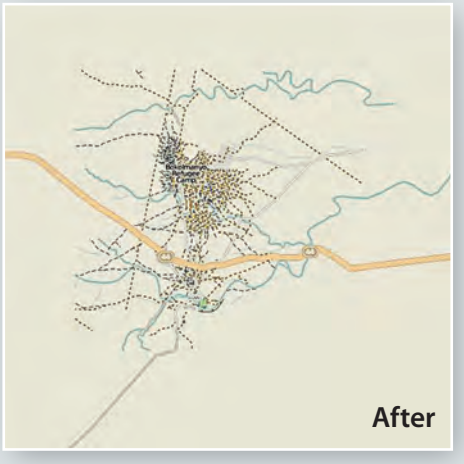
As a proof of concept, in May 2012 the HIU posted imagery for the ten refugee camps that comprise the Dollo Ado (Ethiopia) and Dadaab (Kenya) complexes. The imagery was available to the volunteer mapping community for 48 hours. The goal was to map the roads and footpaths in these ten camps that collectively house over 600,000 refugees. The HIU partnered with the Humanitarian OpenStreetMap Team (HOT) on this project. HOT provided volunteer support and access to its micro-tasking platform, the OSM Tasking Manager (http://tasks.hotosm.org). This platform coordinates volunteer efforts by breaking down large mapping tasks into smaller areas that can be digitized in 45-60 minutes. The response was immediate - approximately 40 mappers from around the world traced the imagery and produced highly detailed map data of the camps, many of which previously were uncharted in the OSM database. Below are a series of images showing the progress of mapping the Bokolmanyo camp from a single road to a detailed camp map in 48 hours. Infrastructure data on all ten camps were significantly updated and, unsolicited, the volunteers also supplied additional data on buildings, rivers, and land use.

Additional information about the Imagery to the Crowd process and other mapping projects can be found on the HIU website (http://hiu.state.gov).

BOKOLMANYO REFUGEE CAMP



Bokolmanyo refugee camp in the OSM database (20 May 2012)



Bokolmanyo refugee camp in the OSM database (28 May 2012)

More detailed view of Bokolmanyo refugee camp in OSM (28 May 2012)