In 2013, citizens from a craft market in a slum area near Kampala worked with María Lamadrid, a member of the open source environmental monitoring community Public Lab, to create a high-resolution map of their market using simple balloon mapping techniques.\(^1\)

This project shows how citizens can use simple, relatively affordable technology to create aerial maps that show how an area is used and describe the local community’s practices.

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Although the project was small in scale, the women from the market were able to use the data they collected to campaign against their eviction from the area and achieve some successes in influencing the Ugandan government.

**CONTEXT**

In late 2012, government agencies attempted to evict local residents from the craft market, stating that their lease had expired. The land had been designated for apartments owned by foreign investors, and the government did not provide support to relocate the residents to another area. Existing maps (such as satellite images) did not document the 800 people who worked in the market, or the type of activity that was taking place in the area.

The community used a simple balloon mapping technique developed by Public Lab that involves attaching a digital camera to a helium balloon, taking a series of pictures at regular intervals and then creating a map by joining or ‘stitching’ the photos together.

Public Laboratory also sells balloon mapping kits with the main components needed (apart from the camera and the helium) for around USD 100.²

The community built the balloon, added a camera and created a map of the area, using Public Lab’s MapKnitter³ platform to combine the photos that had been taken.

“The members of [the market] and I could have control over exactly what got photographed and to what resolution by winding and unwinding the balloon closer to the ground. If already in stock, the balloon takes little time to set up, which meant that in the unforeseen event of an eviction near the market, we could spring the balloon near the site and photograph the event.”

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² According to Lamadrid, helium is one of the main expenses, with one cylinder for seven mapping sessions costing around $1,300.

³ http://mapknitter.org/
This balloon mapping technique is an innovative addition to an important type of citizen-generated data technique: “participatory” (or “community-based”) mapping. Participatory mapping shows how the area is actually being used, compares it with “official” maps, and uses the information to claim communities’ rights to land. In this case, the map was combined with evidence from members of the community such as stories about activity in the market, to build up a picture of how the area was used.

**IMPACT**

The map was created to prevent the eviction from taking place immediately and build support for the residents’ case—that the craft market was valuable in terms of both trade and tourism. In response, local authorities issued a court injunction prohibiting the eviction for a one-month period. Residents also sent the map to several different government agencies. The Ministry of Tourism responded by sending a team of people to evaluate the market’s value to the tourism industry, and wrote a letter to the Ministry of Land pleading their case. This stalled the eviction for two extra weeks.

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Letter from the Ministry of Tourism

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Amb. Patrick S. Mugooya

PERMANENT SECRETARY
After the authorities evicted residents from the area in February 2013, the residents created another map showing the situation before and after the area was cleared, in an attempt to gain support from the government for the market to be relocated. Finally, the data was also added to the global mapping site OpenStreetMap, creating an accurate record of the area that could be accessed by others.

This type of project shows one way in which citizens can organize to collect data and use it as a counterpart to official data. Although these initiatives are always small in scale, they allow citizens to express their views about things that are important to them, increasing the amount of data that’s available.

DataShift is a multi-stakeholder, demand-driven initiative that builds the capacity and confidence of civil society to produce and use citizen-generated data to monitor sustainable development progress, demand accountability and campaign for transformative change. Ultimately, our vision is a world where people-powered accountability drives progress on sustainable development.

DataShift is an initiative of CIVICUS, in partnership with the engine room and Wingu. For more information, visit www.thedatashift.org or contact datashift@civicus.org.