

1. Setting the Stage for Program Sustainability

Maps have the power to tell stories about people and places and the ability to show patterns of ideas or issues through space and time. Citizen-generated data can leverage the local knowledge and expertise of individuals living in these communities to participate in addressing and identifying the societal issues being faced. Combining the power of maps and the value of community-led data collection enables a new way of understanding a group of people that a traditional approach to surveying, for example, may be unable to capture. To arrive at such granular parcels of community insight, however, requires preparation and, among other things, like deciding what the questions being asked are and who is doing the asking.

The impact and value of open mapping activities largely depends on the level of engagement and investment of those in your program - your team and your beneficiaries. Like any project, a team's ability to think laterally and propose out of the box solutions is measured by how well - or willing they are - to understand a specific problem and the people who face it. In the context of working with refugee or host communities, it is particularly important to assess at the start of a project how prepared and equipped your team is to engage with different actors from various backgrounds both cautiously yet effectively. The following section will explore six specific areas that represent important components to assess at the beginning of a project to understand what needs to be strengthened in order to enable successful implementation of activities and, eventually, lead to program sustainability.

1.1 Developing Map Literacy

Spatial, or map literacy, isn't universal. When designing your program, it is important to avoid assumptions about what people do or do not know about maps. For these reasons, it is important to consider at the start of the project what the basic level of understanding is amongst your team and project partners are on the use, purpose and value of maps and data. This assessment - and the map sensitization that follows - will consist of different approaches depending on the specific group you are working with as needs will vary.

If your team, beneficiaries or partner organization has never used or worked with a map before, it is important to start the sensitization process with basic map literacy training to ensure all are on the same page before the project begins. Remember - most people already have a mental map of the community in which they live or the routes they take daily. Your approach to building one's map literacy should be a gradual, self-driven process where your group should be afforded the opportunity to self-identify what they already know about maps and explore what they may not know. There are a few exercises to consider walking through with your team to assess and build their map literacy:

- Determine your group's ability to read and interpret maps by asking them to locate themselves on a printed (or digital) map, identify landmarks, draw their route from home to their friend's house, etc.
- Facilitate an open-ended brainstorm session with sticky notes to encourage discussion about the value and use of maps: what is a map, what can a map be used for, how are maps useful, what can maps tell us that words/photos cannot, etc.
- Support your group in identifying the type of information that would be useful to their everyday lives and how this information may be projected onto a map
- Encourage your group to think about and suggest questions that may (eventually) be used to collect or map information to ensure they understand the reason and logic behind why questions are asked (direct involvement early in the process leads to higher engagement and buy-in later)

1.2 Building Empathy and Cultural Sensitivity

Understanding the complexity and sensitivity around issues in any given community is a foundational step to initiating an open mapping project. Empathy and cultural sensitivity is a skill that can be practiced and improved with enough time, background information to understand the situation at hand and the right (team) attitude and mindset.



Figure 1: GPSDD Yumbe Sharebacks

First, to build empathy and cultural sensitivity about a group or community that you're intending to collaborate with, it is vital to have knowledge and understanding of the context. By 'mapping' out the situation, issues, possible dangers and players involved, it allows you to be more informed when interacting with a group and enable a more responsible approach to project planning and subsequent implementation. Additionally, it can help your team prepare for the challenging stories or details they may hear from working with a particular community. In the context of working with host and refugee communities, consider the following questions to measure how prepared and informed your team is to initiate a project in a new community:

- Understand the historical context and current situation:
 - What is driving the displacement and migration of people?
 - Where are refugees coming from? How many refugees are there?
 - Are refugees entering crossing borders formally or informally?
 - How accurate/inaccurate is the projected number of refugees in country?
- Understand the governing system and actors involved:
 - What is the government's position on refugees and migration?
 - What government body or agency is responsible for monitoring such issues?
 - Which international organizations or NGOs are responding? Which actors are providing what services or assistance?
- Become familiar with the existing projects and information being produced:
 - What projects are being implemented by partners on the ground?
 - What sectors do the projects fall under? WASH, Health, Education, etc.
 - What kind of data or information is being collected? What type of tools are being used? Is the data open and accessible?

Second, the underlying meaning of empathy is to feel what another person is feeling. Empathy can be built with enough perspective taking and reflecting on, for example, _what it would be like to be them (the "other" person, group, etc.). Consider the following questions or activities to assess and build your group's level of empathy and cultural sensitivity before implementing open mapping activities:

1. Reflection Dialogue:
 - 1.
 2. Why is this project important or necessary?
 3. Refugee contexts
 1. What would it be like to be forced to leave your home and move to a new country? What would you pack? What would you miss?
 2. What could help make someone new to our country feel more comfortable and less scared in their new home?
2. Activities
 4. Experience Roleplay - Split the group into actors with different backgrounds; workshop a specific situation or problem and encourage participants to act based on their assigned role. After 5 minutes, switch roles so participants have opportunity to experience different perspectives of the same situation.
Resource: UNHCR "Passages" Simulation for Refugee Experiences
 5. Survey Roleplay - Teams should practice conducting the surveys that will be completed in the field, with part of the team playing the role of the surveyees. Team members role playing as surveyees should take on various roles and attitudes that surveyors will encounter in the field including, resistant, reluctant, and even hostile surveyees. This process has many benefits: allows the team to find gaps and mistakes in the survey, prepares surveyors on what they might encounter in the field and how to handle the situation, and provides surveyors with the opportunity to understand how surveyees might feel to various approaches and questions.

1.3 Fostering a Collaborative Approach

The primary ingredient in the success of an open mapping project is the cultivation and care of a strong network of partners across the range of communities and institutions that have a stake in the project. These partnerships are critical for the implementation, uptake, and sustainability of open mapping projects. They can lead to shared investment of resources and technical expertise, innovative use cases for open data, increased legitimacy for the project, and stability over time. Because the open

mapping ecosystem is a global phenomenon, it's likely that, at the start of any project, there will be a pre-existing group of individuals and organizations already mapping in the target area. With proper outreach and engagement, these groups, as listed below, can be a powerful resource. Including them early in the planning and design phases of a project will help increase their sense of ownership and improve the likelihood of successful collaboration.

Government Agencies

Multiple governing bodies - areas as diverse as national statistics, urban planning, transportation, public health, environment and natural resource management, disaster response - have all benefited from working with open mapping

Such stakeholders can bring valuable resources, expertise, and authority to the development and implementation of a mapping project.

Universities and Colleges

Participation in a mapping project offers students and faculty an opportunity to learn about cutting-edge open-source methodologies, ideas, and software.

Mapping projects that involve academia may also evolve into a permanent part of the university's curriculum or even a course by itself.

Local scientific communities

Whether involved in university research or in civil society organizations, these are important groups to involve in the data modeling process. Civil engineers, planners, and others have experience with relevant data and analysis, so they may be able to provide suggestions as well as important local context.

Data quality assessment throughout the project, particularly at the end of the data collection period, is also critical, and these groups may be well placed to support it.

Open-source software communities

Freelance software developers, GIS specialists, and private software companies may be interested in providing software that assists the project as well as services for the community.

Often closely linked with OSM communities, these groups can also share its collective professional expertise when hosting a skills workshop, and service providers can rent office space or equipment.

Civil society organization or local NGO

Collaboration with these groups can enable a more in-depth understanding of local context and important issues, data-sharing and collection, youth outreach, and well-developed networks in the local community.

1.4 Identifying gaps and designing training content to ensure institutional needs are being met

Open mapping projects or activities should not be seen as a one size fits all. What works in one context may fail in another due to varying factors. By being intentional about identifying, addressing and integrating the specific needs of a community, partner organization, etc. into the project from the very start, it can be ensured that the right needs are being worked towards addressing.

An integral component of HOT's Global Partnerships for Sustainable Development Data (GPSDD) program in Uganda and Tanzania to train and capacitate partners meaningfully was engaging stakeholders in the early stages of planning the content and program to enhance the investment and accountability of partners alike in the execution and final outcome of the project. Consider the following action points to engage your specific group both adequately and appropriately from the project's start to enable long-term impact:

- Create and share a Needs/Gap Assessment Survey with beneficiaries to understand their baseline knowledge and perceived gaps before planning training content:
 - Identify how the user understands and uses OSM, their application of specific tools, their perceived challenges and gaps in achieving success in their workflow, etc.
 - Sample survey can be found [here](#).

- Meet with beneficiaries to discuss survey responses, co-identify potential training content and agree on a timeline:
 - Regular communication and engagement with the beneficiary helps to build rapport and trust that drives to build capacity within their institution
- Co-design the training agenda to ensure needs and learning goals are met
 - Based on the initial discussion around survey responses, create a draft training and share back with beneficiary for feedback
 - This is the point in collaboration where training content and agenda can and should be adjusted to ensure the final outcome satisfies the beneficiaries needs and addresses institutional gaps in knowledge and practice
- Encourage key focal points to participate in the final training engagement or program
 - Participation in the final training program by those who support the planning and implementation of the activity is key for long-term sustainability
 - Continuing to engage with and empowering an individual within the beneficiary's group (who helps to anchor the project) ensures their understanding of the value and use of the training and tools which makes it more likely that the training is useful to the larger group and lead to greater impact and sustainability during project implementation



1.5 Engaging with and capacitating local community members increases local buy-in, sustainability, and learning engagement

When individuals from the partner organization, government agency or local communities with whom you are working with participate in the development and implementation of your project, it can influence the level of buy-in and long-term investment other beneficiaries make in the initiative.

With many of the trainings HOT conducted under the GPSDD project, our mission was to ensure our team of trainers and supervisors were a mix of people coming from Kampala, where our country office in Uganda is based, and individuals from the communities that we have established relationships with. Bringing individuals from local communities onto your project not only provides the broader mission with local knowledge that is valuable to navigate places respectfully and safely, it also ensures the project is accepted and recognized as a community initiative rather than another exercise where people, like

'outside' surveyors, visit communities to roll out mapping activities in a neighbourhood that is not their own. Consider the following points when building your project team:

- Strive for diverse representation from different groups and communities in your project team to ease integration and enable greater buy-in in local communities
- Engage with leaders and those in positions of influence early in the project to determine their level of commitment and investment in the project; the more genuine interest there is from leaders to solve an innate problem in their institution, the more likely it is the project will continue after the initial phase of project implementation
- Learning (new) tools and skills from people who you either know personally or come from the same background, sector or community can increase the effectiveness of the training due to a shared common understanding of teaching cues, use of examples, etc.

From being able to understand the context in which you are working in and asking the right questions to knowing who to involve in the project when, the ability to exercise good judgement, critical thinking and empathy towards all those involved are key ingredients to ensuring the impact and long-term sustainability of your program. Defining at the start of the process what goals are most relevant to your program's mission and the specific profiles of people involved will help ensure your institution can design and implement the project in the ways most likely to achieve them.