

Land and Poverty Conference 2019: Catalyzing Innovation

March 25-29, 2019

Washington, DC

Mapping for Peace and Prosperity: Applying participatory mapping in conflict-affected settings.

Abstract:

This paper engages with innovative ways to apply participatory mapping techniques and the latest technological tools in fragile, conflict-affected settings to contribute to sustainable land use. In this paper, the authors describe in detail the process and purpose of a participatory mapping project in north-eastern Democratic Republic of Congo (DRC), and elaborate on the lessons learned so far. The paper concludes with a set of recommendations to take the process forward for greater sustainability and long-term land rights protection.

Through the project "*Maji Ya Amani*" — Water for Peace in Swahili — ZOA INTERNATIONAL and Cadasta Foundation are working to revive an existing irrigation scheme created in the 1950s in Luberizi, South Kivu, DRC. The larger project is implemented by a consortium of *Search for Common Ground* (SfCG) and the *International Rescue Committee* (IRC). From the beginning, it was understood that improving the land through irrigation would result in an increase in land value and potential speculation, jeopardizing those who currently occupy and use the land. Due to the ongoing conflicts and tension between the statutory and customary laws, land rights in the area are of particular concern. In the project area, most of these rights are rooted in customary systems that are strained due to ethnic tensions, migratory pressure, and violent conflict.

To mitigate the risk of conflict, ZOA and Cadasta Foundation facilitated a broad participatory mapping exercise with the government, the customary authorities, and local communities to map and document land rights and the irrigation infrastructure across an estimated 5,000 parcels. The exercise was based on the principles of *the Social Tenure Domain Model* (STDM), which provides a framework for achieving consensus among the various actors and stakeholders involved, including traditional authorities, civil society organizations, local and provincial authorities, and individual landholders. The project data was collected with the ODK Collect mobile application and Trimble Catalyst GNSS receiver with sub-meter accuracy subscriptions and was stored on the Cadasta Platform.

The electronic collection and storage of data had never been done before in the area and most of the local stakeholders were keen in understanding the details of the system, including how to set up the GNSS to deliver the accuracy needed to receive official land rights recognition. This paper describes the specific challenges that the team met along the way in an environment where key resources such as electricity and internet are very limited, where the hot climate and rough geography constrained the survey teams and the equipment

to special care and where any small error on the data published in the villages could lead to more conflicts instead of solving them.

The outcome of this exercise is a database called “*cartographie pour la réflexion*” (mapping for thoughts) to help the different stakeholders analyse the current land occupation pattern, resolve land conflicts, document tenure rights, and ensure equitable and sustainable access to the irrigation scheme.

Despite the long-standing rivalries and history of violence in the area, key traditional leaders have agreed to support the project following their involvement in the participatory mapping exercise. Provincial authorities have also given guarantees that the current access and land use arrangements will be protected and the participatory demarcation was conducted with the active involvement of the communities, local land bureaus, and technical experts trained by Cadasta. ZOA’s partners IRC and SfCG are simultaneously working on the establishment of land management councils. They have actively engaged the broader community in awareness raising campaigns and the drawing up of by-laws for land management to prepare for the re-established irrigation infrastructure.

Recognizing that the project is set in a highly fragile context that requires constant close coordination among all stakeholders, the consortium partners need to ensure the complementarity of different activities while maintaining a high level of sensitivity towards potentially conflictual issues. Like other, similar ZOA land rights projects in Burundi and Uganda, the *Maji Ya Amani* project works from the ground up but requires an integration of activities on different governance levels and active support from actors on various levels. Sustainability can only be achieved through political support and a formal recognition of the identified landholding and use structures. In such a conflict prone setting with limited state authority, only multi-level approaches, involving a variety of actors to connect different levels of governance seem to promise long-term positive outcomes. At the same time, local cooperation and locally anchored conflict resolution are necessary for the project’s long-term success and sustainability. An urgent current challenge is to attach a legal status to the documentation of use and ownership rights. Without this, long-term protection appears to be illusory.

The paper goes through the process of setting up and implementing participatory demarcation in this specific and highly conflictual setting step-by-step. By doing this, the necessary conditions for success are highlighted while particularly difficult aspects are traced and underlined. These relate among other things to the diversity of interests that need to be accommodated through the project and the history of violent conflict in the area. Some of the diverging interests are extremely difficult if not impossible to reconcile. This illustrates once more how crucial land governance is for post-conflict stability (see: Van Leeuwen, Van Dijk and Kobusingye 2017). A project like the case described here presents a direct contribution to this and holds lessons for the larger political-economic context. It is demonstrated that such interventions need to be linked to the larger political-economic context in a dialogical way that allows for input from and towards higher levels of governance and policy-making. In this way, the paper combines discussions of very practical grass-roots experience with larger efforts at coordinating and improving land governance at the regional level.