

# Community-Based Mapping with Smartlandmaps: Versatile, Simple and Inclusive

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## SUMMARY

Community-based mapping is among the prominent methods for fit-for-purpose (FFP) land tenure data recordation. As a start-up initiative of the University of Münster, SmartLandMaps provides local, national and international organisations with innovative spatial data tools and services for documenting land rights and land use. Communities use high-resolution aerial or satellite imagery to interact, discuss and reach a consensus on community members' ownership and land use rights. A cloud-based digitisation pipeline then converts community-drawn paper maps into a standardised and digital format. The recommended mapping process can be divided into three main phases: the preparation phase, the mapping phase, and the digitisation phase. Following the case-study method, observations from Benin, Chad and Sierra Leone shed light on mapping dynamics as well as possible outputs of community-based mapping with SmartLandMaps. Three main characteristics stay out: versatility, simplicity and inclusivity. Versatility concerning the subject of mapping and a whole range of different tenure types. Additionally, SmartLandMaps showed its versatility in being combined with Trimble Catalyst for verifying boundaries in cases where the community had difficulties in pointing out the boundary lines. The simplicity of the process could be validated during various pilots and a workshop where precious feedback was collected from various actors in Sierra Leone. The main mapping activity only required a pen, a printed orthophoto, and a mobile device with a camera. After uploading pictures of the orthophoto, a digital representation of the sketched parcel fabric is checked for any topological inconsistencies and approved by a SmartLandMaps team member. After approval, the data is provided in a GIS-ready format. Cases from Benin, Chad and Sierra Leone will be compared to conclude on the merits and limits of the SmartLandMaps community-based mapping process.

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