MOBILE APPLICATION TO SECURE TENURE (MAST): LESSONS LEARNED

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PART I: OVERVIEW OF IMPLEMENTATION & TECHNOLOGY
WHAT IS MAST?

• MAST is a combination of a mobile data capture application, a data infrastructure, and a participatory methodology.

• The technology: captures and manages the data needed to map and document land rights – and in the case of Tanzania, is used to deliver CCROs.

• The methodology: crowd sources data collection, using local people called "Trusted Intermediaries" to collect the spatial and biographical data usually collected by land professionals.
ORIGINAL PILOT OBJECTIVES

• Understand how citizens and communities react to & engage with the MAST approach
• Test ways to engage land professionals in the crowdsourcing of land rights
• Understand what makes a good ‘Trusted Intermediary’
• Identify what land rights information must be captured to provide ‘fit for purpose’ tenure security
• Test a range of technology tools to identify affordable/appropriate solutions
• Establish approaches to maintain land right information after the pilot and expanding its use
• Explore how the results from the pilot can be shared and the lessons and practical applications expanded, replicated and scaled for USAID and others
OVER TIME THE PILOT FOCUS CHANGED TO:

• Can USAID support the GOT to deliver formal documentation of land rights using MAST’s technology?
• Can USAID modestly scale a “crowd-sourced” approach?

With a key background question:
• Can these efforts help increase tenure security for local people?
WHERE MAST WORKED

• Tanzania was chosen because:
  – GOT has important commitments related to land titling
  – In partnership with USG, Tanzania is supporting critical agricultural development efforts
  – GOT was open to supporting this approach

• Pilot operated in three villages in Iringa Rural District:
  – Ilalasimba: 325 households, 910 parcels, 65 sq. kms.
  – Itagutwa: 441 households, 1,090 parcels, 75.8 sq. kms.
  – Kitayawa: 546 households, 1,878 parcels, 46 sq. kms.
  – All villages are rural, with agriculture-based livelihoods predominating, low levels of land-based conflict
MAST PILOT VILLAGES
OUR APPROACH: THE IMPLEMENTATION FRAMEWORK

Activity 1: Present project to Village Council to gauge interest and build support

Activity 2: Establish (as needed) and build capacity of local government and institutions

Activity 3: Execute public awareness campaign related to land laws and women's land rights

Activity 4: Provide training and select trusted intermediaries for field mapping/adjudication.

Activity 5: Conduct field mapping/adjudication

Activity 6: Verify/validate data collection, identify and resolve any conflicts.

Activity 7: Facilitate Village Assembly workshop and publically present results

Activity 8: Issue Adjudication Forms for village leadership to review and sign

Activity 9: Issue Certificates of Customary Rights of Occupancy (CCRO) to villagers
STEP 1: PRESENT PROJECT TO VILLAGE COUNCIL

• Led by Local Partners CARE & TAGRODE, along with GoT
• Meet with village leaders to introduce the project and explain project benefits
• Explore village characteristics – existence of local institutions, economic activities, etc.
• Discuss with villagers to gauge interest
STEP 2: ESTABLISH/BUILD CAPACITY FOR LOCAL INSTITUTIONS

• Identify institutional needs:
  – Is there a sitting VEO? If not, work to appoint
  – Is there Land Adjudication Committee? If not, work to establish
  – What is the gender composition of Committee? Suggest adjustments as needed

• Do Committee members understand Land Laws?

• Provide focused training to Committee members, and to Village Council
STEP 3: EXECUTE PUBLIC AWARENESS CAMPAIGN

• Outreach done by CARE/TAGRODE with DLO support
• Hold initial Village Assembly Workshop to provide overview of project and initial trainings on land laws
  – Training focus on: Village Land Act (VLA), land adjudication process, women’s rights under the VLA and the Constitution,
• Develop hamlet-by-hamlet outreach and training strategy
• Support training efforts with maps to demonstrate what will happen
STEP 4: TRAIN AND SELECT TRUSTED INTERMEDIARIES

• Work with village leaders to identify candidates among youth who will be TIs
  – Need to be literate
  – Need to be capable of walking fields
  – Need to demonstrate skills at using technology
• Provide 5 days of training on how to use technology suite
  – Training is hands-on, active learning
  – In classroom & in field
• Selected based on merit, with attention to gender balance
STEP 5: CONDUCT FIELD MAPPING/ADJUDICATION

• Identify date for mapping and work with village leaders to ensure people know when the TI team will arrive
• TAGRODE manages process of field adjudication with team of TIs
• Parcels mapped following VLA process – walk boundaries with land holders, neighbors, and Land Adjudication Committee members
  – TIs capture parcel boundaries
  – Disputes addressed with Land Adjudication Committee members
  – Required demographic/tenure information captured on MAST app
  – Photo of land holders taken with app and added to data capture form
STEP 6: VERIFY DATA COLLECTION & RESOLVE CONFLICTS

• Project leaders verify data by accessing Data Management Infrastructure
• Verification involved:
  – Verifying data
  – Identifying parcel gaps or overlaps
  – Identifying areas of potential conflict, and resolving them with help of Land Adjudication Committee officer as required
  – Resurveying as required
STEP 7: PRESENT RESULTS AT VILLAGE ASSEMBLY WORKSHOP

- After mapping and registration data is verified and conflicts addressed, arrange for public presentation
- Presentation is done by local partner TAGRODE at Village Assembly gathering
- Gathering allows villagers to ask questions & raise concerns
- Provides validation of results
- Allows process to move to next stage – validation at DLO
STEP 8: ISSUE ADJUDICATION FORMS

- DLO geospatial staff review data collected in the field
- Address concerns such as missing parcels, overlapping boundaries
  - May require re-mapping in the field
- From the MAST software, print and review Adjudication Forms
- Senior Land Officer signs Adjudication Forms
- Forms returned to village for review
- Once reviewed, validated and signed at village, Adjudication Forms return to DLO
- This allows final step to take place: printing, registration, delivery of CCROs
STEP 9: CCROs ISSUED TO VILLAGERS

- Based on approved Adjudication Forms, DLO uses MAST software to generate and print CCROs
- CCROs must be printed on crested paper
- CCROs printed in triplicate
- Returned to village to be signed by Village Chairperson, VEO, landowner
- Must be collected & returned to DLO
- Must be signed by Senior Land Officer & recorded before release/delivery
- CCROs then delivered back to Village Council for distribution
THE MAST TECHNOLOGY SUITE
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Key Components of MAST Application

- Mobile Data Capture Application
- Data Capture Module
- Land Rights Data Infrastructure Web Application
- Mobile Configuration Tool
- Data Management Infrastructure Tool
- Admin Tools
- Reporting Tool
SPATIAL DATA CAPTURE

MAST Mobile Application, depicting image base map, showing land parcels bounded by a road and river.

MAST Mobile Application, showing data being captured; GPS tools used to capture boundary points of parcel.
ATTRIBUTE DATA CAPTURE

PROPERTY INFORMATION

GENERAL

PROPERTY

TENURE

PERSONS

MULTIMEDIA
DATA MANAGEMENT INFRASTRUCTURE: DATA REVIEW AND EDITING

Dashboard provides a consolidated view of the land rights data collected in the field

Mapping tools provides functionality to view and review data of spatial units on map
DATA MANAGEMENT INFRASTRUCTURE: REPORTING

Adjudication Form/Application is generated by the application for each specific property, for signature by occupants and neighboring occupants.

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DATA MANAGEMENT INFRASTRUCTURE: REPORTING

MAST will generate CCRO certificate for a selected property based on a predefined template.