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FOLLOW-ON PERFORMANCE EVALUATION OF THE RESPONSIBLE LAND-BASED INVESTMENT PILOT IN MOZAMBIQUE: FINAL REPORT

May 2023

This publication was produced at the request of the United States Agency for International Development. It was prepared independently by NORC at the University of Chicago.

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May 2023

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ABSTRACT

Under the Communications, Evidence and Learning (CEL) Project, NORC conducted a follow-on performance evaluation of the Responsible Land-Based Investment Pilot in Mozambique, a program to raise awareness on land rights, conduct participatory land mapping and documentation of landholders' parcels, and provide eligible participants with a certificate to prove acquisition of Land Use and Benefit Rights (DUATs) recognized under Mozambique's 1997 Land Law, issued by a local farmer cooperative. The geographic focus of the Pilot was a rehabilitated floodplain surrounding a sugar estate located in Manhiça District, where many farmers have long-standing but undocumented rights to land. The sugar estate seeks to engage farmers in sugarcane production via outgrowing contracts, which can provide substantial livelihoods benefits to farmers, but would like to avoid contracting with individuals who do not hold legitimate rights to the land.

The follow-on evaluation sought to understand the longer-term achievements and sustainability of the Pilot, four years after its conclusion. The overarching purpose and evaluation questions sought to understand how Pilot activities in general, and the cooperative-issued certificates specifically, have affected participants' perceived land rights knowledge, tenure security, perceptions of, engagement with, and ability to benefit from sugarcane outgrowing schemes, and their broader economic and livelihood situations. Additional learning priorities related to women's empowerment, beneficiary demand for certificate updates, beneficiaries' use of land grievance and remediation mechanisms, and perceived economic and broader livelihoods benefits of the cooperative-issued land certificates.

The follow-on evaluation adopted a non-experimental approach using qualitative and quantitative pre-post analysis to explore the relationship between Pilot activities and outcomes of interest for land users in the Pilot zone. Follow-on data collection particularly aimed to identify any key changes that may have occurred since a 2018 endline evaluation and completion of a second phase of Pilot implementation activities in 2019. Data collection consisted of 16 qualitative focus groups with farmers who have land parcels in the rehabilitated floodplain, 16 key informant interviews with farmer association leaders, community leaders, sugar estate liaisons and Pilot local implementing partners, and a telephone survey of 534 Pilot participants.

Evaluation findings document the Pilot's broader achievements, explain successes, failures and unanticipated consequences that may have occurred, and summarize key lessons learned and recommendations to inform planning and implementation of similar efforts in future. Recommendations at follow-on aim to strengthen future programming that links customary land documentation activities to broader efforts to strengthen land tenure security and minimize risks to communities associated with land-based outgrower opportunities through private firms.

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ACRONYMS

AF	Analytical Framework for Land-Based Investments in African Agriculture
CATI	Computer-Assisted Telephone Interview
CEL	Communications, Evidence and Learning
DDI	Bureau for Development, Democracy and Innovation (USAID)
DUAT	Law of Use Rights and Tenure/ <i>Direito do Uso e Aproveitamento da Terra</i>
EEL	Center for Energy, Environment and Infrastructure (USAID)
EQ	Evaluation Question
ERC	Evaluation, Research, and Communications
EU	European Union
FY	Fiscal Year
GD	Group Discussion
HHs	Households
IP	Implementing Partner
ILRG	Integrated Land and Resource Governance
IRB	Institutional Review Board
KII	Key Informant Interview
LIP	Local Implementing Partner
PE	Performance Evaluation
NORC	NORC at the University of Chicago
SOW	Statement of Work
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

This report presents findings of a follow-on performance evaluation (PE) of USAID’s Public-Private Partnership for Responsible Land-Based Investment Pilot (“the Pilot”) in Mozambique. The Pilot was a 3-year program implemented across two phases during 2017-2019 by local implementing partner Terra Firma together with Maragra/Illovo, in Mozambique’s Manhiça District. This follow-on PE was commissioned by USAID and conducted by NORC at the University of Chicago under the Communications, Evidence, and Learning (CEL) project. It follows a baseline study and endline PE conducted in 2016 and 2018, and adopts a consistent evaluation approach as the previous rounds.

The follow-on PE findings draw on primary qualitative and quantitative data collection conducted in August-October 2022 with a range of Pilot beneficiaries, local implementing partners and other stakeholders. This included 16 group discussions (GDs) held with 152 Pilot participants (57 men and 95 women) and conducted in 5 of the 10 floodplain blocks where the Pilot was implemented, 16 key informant interviews (KIIs) held with a range of Pilot stakeholders and a community-assisted telephone interview (CATI) survey with 534 Pilot beneficiaries.

RLBIP BACKGROUND

The Pilot was a USAID/Illovo Sugar Africa partnership initially implemented under the Evaluation, Research, and Communications (ERC) task order and later extended by USAID’s Integrated Land and Resource Governance (ILRG) activity. The Pilot operated in several areas (“blocks”) of a low-lying floodplain surrounding Illovo’s Maragra sugar estate located in Manhiça District, where sugarcane production is viable and many farmers had long-standing undocumented rights to land.

The Pilot’s Illovo partnership stemmed from the company’s interest to engage in sugarcane outgrower contracts with farmers in the floodplain areas surrounding Maragra while also ensuring that such contracting would be done with farmers who held legitimate rights to the land, as the company sought to avoid the potential for outgrowing contracting to exacerbate land-grabbing in the area. This was a particular concern in the floodplain context surrounding Maragra, given a trajectory of land acquisition by outside investors and the area’s history of land conflict and concerns over land-based corruption.

The Pilot included three main components: land rights and Pilot sensitization with interested landholders from selected blocks in the floodplain, participatory land mapping and registration of landholders’ parcels, and providing eligible participants with a certificate to prove acquisition of Land Use and Benefit Rights (DUATs), issued by a local farmer cooperative, Hluvukani Cooperative. The cooperative-issued certificate provided legally-recognized documentation of a land holders’ legitimate rights to their land and could also be used by farmers as one of the forms of documentation Maragra accepted as part of the outgrower contracting process.

The Pilot operated in two Phases and broadly aimed to improve land tenure security for smallholders and their opportunities for economic empowerment, including via sugarcane outgrowing for Illovo’s Maragra sugar estate. Phase I took place during 2016-2018 within six of the floodplain blocks, where 1,741 parcels were mapped and 1,733 cooperative-issued certificates of documented land rights were issued to beneficiaries in the selected zones. Phase II took place during 2018-2019 and extended the Pilot activities to land holders in four additional blocks in the same floodplain, reaching an additional 710

farmers and 1,184 parcels. In total, the Pilot issued land certificates for 2,917 parcels across 10 blocks to 2,040 parcel holders, covering an area of 2,056 hectares.

DEVELOPMENT HYPOTHESIS

Among other objectives, the Pilot was intended to provide learning on how implementation of components of the Analytical Framework for Land-Based Investments in African Agriculture (the AF) helps private firms to understand and manage risks related to land-based investments, and the extent to which this leads to improved outcomes for members of communities affected by those investments.

The development hypothesis for the Pilot anticipated that if private businesses such as Maragra appropriately apply the AF as part of their land investment, acquisition, and management activities, these firms would (1) be able to identify and understand individual and community land tenure risks, and (2) be more likely to adopt approaches to avoid these risks. Together, this was anticipated to mitigate tenure insecurity and related risks to those in affected communities, such as farmers who have land in the floodplain areas around Maragra.

Within the affected communities, USAID believed that firms' use of the AF and the related Pilot activities will improve community members' perceptions of the firm, their relations with and participation in land-based investment schemes, and their participatory inputs into land use and investment opportunities compared to when companies implement land-based investments without following AF guidance. USAID expected this to improve tenure security within the affected communities, including lowering the perceived risk of land expropriation and reducing land disputes among individuals. In turn, community members' improved knowledge of their land rights, tenure security, and perceptions of the firm were anticipated to lead to increased interest and ability for land users to engage in land-based investment opportunities and to benefit economically from their land. The Pilot evaluation focuses on these components.

EVALUATION PURPOSE AND BACKGROUND

This follow-on evaluation is focused on understanding the longer-term achievements of the Pilot and their sustainability over time, four years after the Pilot's conclusion. The overarching purpose is to understand how Pilot activities in general, and the cooperative-issued certificates specifically, have affected participants perceived land rights knowledge, tenure security, perceptions of, engagement with, and ability to benefit from sugarcane outgrowing schemes, and their broader economic and livelihood situations.

The evaluation also seeks to document broader achievements from the Pilot, explain successes, failures and any unanticipated consequences that may have occurred, and summarize key lessons learned and recommendations that may inform planning and implementation of similar efforts in future.

EVALUATION QUESTIONS

Restructured Evaluation Questions for Follow-on

EQ 1: Perception and Engagement with Land-based Investor Firms and Outgrowing Schemes

1. *Project achievements (Certification/Titling)*: What was the extent of parcel mapping, land certification, and DUAT titling that was achieved under the Phase II Pilot activities, in terms of individuals participating and area of land mapped within the Pilot zones? What are participants' overall perceptions of the activity?
 - a. Were there any challenges encountered by potential beneficiaries with respect to participation in the Phase II Pilot land-mapping and certification activities, and how were these resolved?
 - b. Were there any differences in participant's perceptions, challenges faced or resolutions across Phase I and Phase II implementation? If yes, what are main reasons why?
2. *Project achievements (Access to Outgrowing)*: To what extent did the Pilot activities enable beneficiaries to have greater access to or participation in outgrower schemes through Maragra Açúcar?
3. *Investor engagement*: How have the Pilot activities affected land user perceptions of and engagement with outgrower schemes through Maragra Açúcar? To obtain an outgrowing contract with any other buyers?
 - a. How has participant in Pilot activities changed land holder's perceptions of Maragra Açúcar, if at all, and what are the reasons for any changes?
 - b. How have the certificates, the mapping process, and the provisioning of land documentation contributed to obtaining contracts, if at all? What barriers do participants continue to face, if any?
4. *Beneficiary perceptions and engagement with Hlulukani*: What are participant perceptions of and engagement with Cooperativa Hlulukani Varime over certificate distribution and administration? More generally?
 - a. Do participants know how to make updates to their certificates, if desired, and who to contact?
 - b. What is the current demand for making changes to certificates, and how are certificate updates being accomplished? What types of changes would certificate holders like to make, if at all (for example, related to: land holder death, land transfers, parcel subdivision, boundary changes)?
 - c. If participants are not making updates to their certificates, what are the reasons why?
5. *Hlulukani roles and capacity for land administration among its farmer association constituents*:
 - a. How has Hlulukani's capacity to manage and administer the land certificates changed? What challenges have they faced and how have these been resolved? What challenges to they continue to face and what type of support would they need to overcome those challenges? What is their current system for tracking certificates and keeping their registry up to date? Are there any key ways this could be improved to strengthen the overall sustainability of the system into the future?
 - b. How has their role as an umbrella organization for local farmer associations changed as a result of the pilot? What challenges do they face and what support would help to overcome that?

EQ 2: What community-level objectives of the Pilot activities have been achieved, and what explains where successes, failures or unanticipated effects have occurred?

1. *Land Rights*: In what ways has implementation of the Pilot activities affected land user knowledge of land rights and perceptions of transparency with respect to land access, allocation, and confirmation of land rights, in the Pilot zone?
 2. *Tenure Security and Land Disputes*: How have the Pilot activities (sensitization, land mapping and provisioning of DUAT titles or certificates of proof of DUAT rights) affected land users perceptions of tenure security, vulnerability to land conflict or disputes, and risk of land expropriation in the Pilot zone?
 - a. In what ways has the land mapping and documentation process, and receipt of certificates, specifically affected participants' views on: land-grabbing by internal and community outsiders, land-related corruption by local officials, and other sources of land tenure insecurity they may face?
 3. *Benefits of Cooperative-Issued Certificates*: How have participants tangibly benefitted from the cooperative-issued certificates, whether related to outgrowing, tenure security, broader livelihoods benefits, or otherwise? For those who may not have felt they have benefitted, what are the main reasons why?
 - a. Have certificate holders experienced any changes in access to, demand for or cost to rent in or out land as a result of the Pilot activities (or any broader effects on informal land markets)?
 4. *Grievance and Remediation Mechanisms*: To what extent are Pilot participants and other land users aware of and utilizing Maragra's grievance mechanism to raise and obtain resolution on land and related complaints through the company? For those who have used or engaged in this process, what were the outcomes?
-

Restructured Evaluation Questions for Follow-on

EQ3: How well do the Pilot activities meet underlying challenges and needs of communities with respect to participation in or proximity to new or existing land-based investment schemes?

1. *Participation*: What are the primary reasons that land users in the Pilot zone do not participate in outgrower opportunities with Maragra estate? To what extent were Pilot activities able to address these barriers?
2. *Land Aggregation to Facilitate Outgrower Contracting*: To what extent have participants chosen to aggregate their land to facilitate obtaining collective outgrowing contracts and benefits from sugarcane production?

EQ4: What are the key lessons learned from the Pilot activities that can inform future application of the AF to better achieve intended community-level objectives?

1. *Overall Effectiveness and Longer-term Sustainability*: What is the effectiveness of the cooperative-issued certificates to achieve tenure security and outgrower participation goals? Are there any steps that could be taken to improve the likelihood for sustained achievements over time?
2. *Economic Benefits and Broader Livelihoods*: To what extent has participants' possession of cooperative-issued certificates played a role in improving their agricultural production, farm-based income, and broader livelihoods, whether through outgrowing or other routes? If no improvements, what are main reasons why?
3. *Women's Empowerment*:
 - a. To what extent has customary land formalization through cooperative-issued certificates increased tenure security for women beneficiaries? Has this led to their increased economic empowerment?
 - b. How has women's control over land and participation in land related decision-making changed, if at all? Have there been any positive or negative consequences, whether intended or not, to women as a result of having land registered solely in their name?
4. *Perceived Effects on Interactions with Local Government*: Do Pilot participants perceive any changes in land-related services provided by local government authorities as a result of the Pilot? What are key reasons for any changes or lack thereof?

EVALUATION APPROACH, STRENGTHS AND LIMITATIONS

The follow-on evaluation uses four data collection methods, consistent with the 2018 endline evaluation:

- Desk review of implementing partner reports, data and other available Pilot documents.
- Group discussions (GD) with land users in the Pilot zone. The evaluation team conducted 16 GDs with a total of 152 participants (57 men and 95 women) at follow-on.
- Key informant interviews (KIs) with farmer cooperative and association leaders, government administrative staff, and Pilot project liaisons. The team conducted 16 KIs at follow-on.
- A computer-assisted telephone interview (CATI) survey with 534 Pilot participants to capture quantitative information about their Pilot experiences and tenure security.

The follow-on evaluation adopts a non-experimental approach using qualitative and quantitative pre-post analysis to explore the relationship between Pilot activities and outcomes of interest for land users in the Pilot zone. Follow-on data collection particularly aimed to identify any key changes that may have occurred since the 2018 endline and completion of the Phase II implementation activities in 2019. The evaluation team conducted field-based endline data collection in Manhiça District during September 2022, and the CATI survey was implemented during October 19 – November 7, 2022.

Strengths of the evaluation include the mixed methods approach that triangulates information across a wide range of beneficiaries and related stakeholders and overlap of qualitative respondents across baseline, endline and follow-on. Limitations and sources of bias inherent to the evaluation design include:

- **Lack of a counterfactual**: The design cannot definitively attribute reported impacts to the Pilot, and the ability to mitigate this issue is limited. However, the design deployed a pre-post approach wherein questions asked at baseline, endline and follow-on aimed to capture information on potential confounding factors.

- **Response bias:** Respondents may have given biased answers or answers they thought the evaluation team was looking for. The evaluation team crafted and tested its discussion guides and survey instrument to ensure the study purpose was clear, absence of leading questions or primes that could skew responses, and respondents felt comfortable speaking openly.
- **Recall bias:** Respondents may have difficulty remembering some evaluation topics, such as disputes or perceptions about specific actors. Follow-up interviews, well-crafted interview templates, appropriate follow-up questions, and the ability to triangulate qualitative and survey data on key issues helped the evaluation team assess and avoid this potential challenge.
- **Selection bias:** Respondents willing to share their views may not be representative of Pilot participants or may be different in observed and unobserved ways. The evaluation team sought respondents with various experiences and roles for data collection. However, the evaluation's non-random design cannot rigorously control for selection bias.

KEY FINDINGS AND CONCLUSIONS

EQ1: HOW HAS PARTICIPATION IN THE PILOT AFFECTED BENEFICIARY PERCEPTION AND ENGAGEMENT WITH LAND-BASED INVESTOR COMPANIES AND OUTGROWER SCHEMES?

- **Perceptions of the Pilot's land mapping, verification and cooperative-issued certificates was generally positive across Phase I and II participants, but some participants continue to experience unresolved issues around land mapping or receipt of their certificate.** There were no key differences in participation or nature of challenges encountered across beneficiaries covered during Phase II relative to Phase I. In half of the GDs held at follow-on, participants highlighted cases where land mapping had not been completed or participants had not been able to receive certificates for all of the parcels mapped by the Pilot. Participants did not know the reasons why, were not sure how to follow-up with Pilot staff or had tried to follow-up unsuccessfully. Similar to endline, these challenges appear to stem from a communications gap between Pilot beneficiaries and extension staff, such that when issues arose, participants were not able to communicate these up and obtain resolution.
- **Beneficiaries felt the cooperative-issued certificates reduced their documentation barrier to outgrowing.** Farmers viewed the cooperative-issued certificates as a way to meet the documentation requirement for outgrowing contracts, noting that other forms of accepted documentation can be more difficult to obtain. At follow-on, the cooperative-issued certificates were seen to confer legitimacy for future engagement with Maragra and outgrowing more generally.
- **Use of Pilot documentation to access outgrowing schemes has grown since the 2018 endline but is still relatively uncommon.** A large proportion (57 percent) of outgrowers in the CATI sample reported the certificate had helped them in some way for outgrowing. But, only 16 percent of CATI respondents who started outgrowing during or after the Pilot period had used their cooperative-issued certificates in the contracting process. Other forms of documentation continue to be more commonly used and many outgrowers at follow-on were never asked to provide their certificate. The CATI findings do suggest an association between the Pilot and new outgrowing participation, although is not possible to fully attribute this to the Pilot given the evaluation design.
- **The Pilot activities did not appear to change broader perceptions of Maragra among Pilot beneficiaries.** even if a greater number of Pilot beneficiaries have engaged with Maragra via

their outgrowing activities since the Pilot activities concluded. The land mapping and cooperative-issued certificates clearly strengthened land users' tenure security in the Pilot zones (see EQ2), but it was less common for Pilot beneficiaries to link the document or Pilot activities directly to obtaining outgrowing contracts.

- **Many beneficiaries remain mistrustful of sugarcane outgrowing via Maragra and also face high entry barriers unrelated to land certification.** Consistent with endline, many participants expressed strong reservations about outgrowing. This was partly due to general risk aversion, but also mistrust of the process via Maragra, and inputs and skills barriers and fixed constraints such as small parcel size (discussed more in EQ3).
- **Hluvukani capacity to manage the Pilot land registry and land certificates remains low at follow-on and poses a concern for longer-term sustainability of their envisioned local administrator role.** At follow-on, beneficiaries had little interaction with Hluvukani and demand for updating their certificates was very low. Many beneficiaries were not aware of the appropriate entity to contact if they needed to do so in future. Among the CATI respondents, 59.2 percent (N=287) of the 485 certificate holders in the sample did not know who to contact for certificate updates and only 12.8 percent (N=62) said they would contact Hluvukani.

EQ2: TO WHAT DEGREE HAVE COMMUNITY-LEVEL OBJECTIVES OF THE PILOT BEEN ACHIEVED, AND WHAT EXPLAINS SUCCESSES, FAILURES, OR UNANTICIPATED EFFECTS?

- **The Pilot achieved strong and sustained improvement in beneficiaries' knowledge of their land rights and perceived tenure security.** Beneficiaries expressed strong confidence in their ability to avoid or resolve land disputes and threats of land dispossession as a result of the cooperative-issued certificates, because the certificates are recognized by authorities and provide proof of the holders' rights to land. Women expressed a similar level of tenure security as men. Among the minority of respondents who expressed tenure insecurity at follow-on, the most common source of concern was that government might seize their land against their will despite their possession of the cooperative-issued certificate.
- **The cooperative-issued certificates have strengthened beneficiaries' confidence in dispute avoidance and mitigation, by providing legal proof of their land rights.** The main tangible benefit that beneficiaries expressed was the certificate itself and tenure security derived from it. Beneficiaries' confidence in the cooperative-issued certificate appeared to be as strong or stronger than at 2018 endline, indicating sustained or increased confidence in the years since the Pilot activities concluded. At follow-on, many beneficiaries felt there was no type of land dispute the document could not help to resolve. Land disputes are still reported by certificate holders, but they are uncommon and many appear to be resolved fairly quickly.
- **Beneficiary confusion at endline regarding the difference between government-issued DUATs and cooperative-issued certificates has dissipated by follow-on due to additional sensitization on this.** At endline, many respondents did not differentiate between the Pilot-issued certificate and government-issued DUAT titles, which had potential implications for sustained tenure security gains and the perceived validity of the certificates over time. At follow-on, beneficiaries largely understood the similarities and differences between the two documents.
- **Beneficiaries are unaware of a grievance mechanism for land issues.** By follow-on, no evaluation participants had sought assistance from Maragra or Hluvukani on land-related issues, and

most of the participants were not aware of a process to do so. Instead, many said they would be more comfortable bringing land issues to their farmer association leaders or another local leader.

- **The Pilot ultimately was unable to address some of the communications, logistics and related implementation challenges that had prevented some interested farmers in the Pilot zones from having their land mapped and obtaining a cooperative-issued certificate.** Similar to endline, at follow-on there were several GD participants from Phase I or Phase II blocks who were not able to have their land mapped due to flooding during the mapping period, or had their land mapped but did not receive a certificate and were not sure why or how to obtain assistance. Context factors such as the decentralized land user and geographic context in the floodplain, the challenging communications context largely dependent on farmer association leaders and capacity at Hluvukani cooperative, and persisting drainage issues in some areas of the floodplain that appear to render some farmers more vulnerable to prolonged flooding likely all contributed to this, as did the fairly aggressive timeline for the Pilot.

EQ3: HOW WELL DO THE PILOT ACTIVITIES MEET UNDERLYING CHALLENGES AND NEEDS OF COMMUNITIES WITH RESPECT TO PARTICIPATION IN OR PROXIMITY TO NEW OR EXISTING LAND-BASED INVESTMENT SCHEMES?

- **The Pilot activities effectively addressed two key underlying barriers to outgrowing related to tenure security and providing document proof of their land rights.** For Pilot beneficiaries that already had the capacity and sufficient land area to grow sugarcane profitably, the Pilot appears to have contributed to an increase in those who sought and obtained outgrower contracts with Maragra. Also, some farmers who already grew sugarcane prior to receiving their land certificates appear to have chosen to expand the area of land under sugarcane as a result of their greater sense of land security induced by the certificates, thus also increasing their income.
- **The Pilot was not designed to address many other substantial barriers to outgrowing that farmers face, including underlying technical and financial capacity, labor, information uncertainty and risk, and tradeoffs with their food production needs and reliance on regular income flows. These remain strong barriers to greater outgrower participation among Pilot beneficiaries.** Many farmers would likely need additional assistance beyond the cooperative-issued certificates to be interested in, effectively engage in or be positioned to profit from sugarcane outgrowing.
- **Given the nature of outgrowing constraints, the Pilot's land documentation inadvertently may have most helped those smallholders who were already relatively better-positioned with respect to outgrowing,** while farmers with very small landholdings and related constraints effectively remain unlikely to be able to benefit from outgrowing and its potential livelihood gains. Many GD participants discussed their inability to profit from sugarcane outgrowing given various constraints, while others affirmed that for those farmers with sufficient knowledge, skills and land, outgrowing can be very lucrative.
- **There is no evidence at follow-on that the certificates have unintentionally spurred widespread land aggregation,** although many farmers in the Pilot zones do already participate in outgrowing via a long-existing collective contract with their farmer association. Among the 184 respondents in the CATI survey sample who reported engaging in outgrowing, 16.9 percent (N=31)

of them reported they were growing sugarcane as part of a collective outgrowing contract at the time of the survey.

EQ4: WHAT ARE THE LESSONS LEARNED FROM THE PILOT ACTIVITIES THAT CAN INFORM FUTURE APPLICATION OF THE AF TO BETTER ACHIEVE COMMUNITY-LEVEL OBJECTIVES?

- **The cooperative-issued certificates were effective for improving farmers' tenure security over land they use in the floodplain Pilot Zone, but less successful for increasing outgrower participation** because a lack of documentation to prove legitimate rights to the land is only one of several barriers to outgrowing that farmers in the Pilot zone face. Still, the findings at follow-on support a link between the certificates and increased outgrowing among some beneficiaries, although the evaluation design cannot attribute this solely to the Pilot.
- **A key lesson at follow-on regarding the Pilot's effects on perceived tenure security is the time it can take for customary land users to perceive change at scale.** Although there were indications at endline that beneficiaries felt the Pilot activities had improved their tenure security, this was stronger and more widespread by follow-on -- four years later and well after Pilot activities had ended.
- **Evidence for economic and broader livelihoods benefits as result of the certificates is mixed and suggests future programs should consider targeted companion programming to strengthen linkages between the certificate and access to economic activities.** There is some evidence at follow-on that the cooperative-issued certificates played a role in improving many beneficiaries' broader economic situations or livelihoods, whether via a greater opportunity to engage in outgrowing, motivating more productive use of their land for sugarcane or other crops, or otherwise. For those who did not feel the cooperative-issued certificates had helped them improve their economic situation, the main reason was that they had not seen opportunities to use the certificate to engage in any new or more lucrative activities. A key lesson for similar Activities in future, and to improve the likelihood of sustained achievements over time, is that such efforts may need to include additional programming targeted at reducing some of the several other barriers to outgrowing that farmers face in addition to those addressed by documented land rights, or partner with other programs that can address these other factors.
- **Effects on women's empowerment are mixed but suggest many women beneficiaries felt the certificates have provided benefits that extend beyond improved tenure security on its own.** There is strong evidence at follow-on that the Pilot led to increased tenure security for women beneficiaries and on par with improvements experienced by men. But, women beneficiaries were not able to leverage their increased tenure security for greater economic empowerment at scale, or to a greater extent than men, for a similar set of reasons irrespective of gender. Still, the data show that a sizeable minority of women beneficiaries felt the certificates had contributed in some way towards improving their economic situation, including a small minority who cited the certificate's role in helping women obtain outgrowing contracts specifically.
- **There was little evidence to suggest women perceived the Pilot activities to have substantially changed their control over land in the floodplain, including the types of crops they grow or extent of decision-making over the land.** However, women described their current situation on these issues as positive and they also clearly viewed the Pilot to have strengthened their ability to maintain rights to their land in future. The evaluation found no evidence

that women had commonly experienced negative consequences as a result of documented land rights or having land registered solely in their name.

- **There is some evidence to suggest improvements in beneficiaries' perceptions or direct experiences with local government authorities on land issues as a result of the Pilot.** Some qualitative participants felt that local authorities' knowledge of the Pilot's activities and beneficiaries' possession of the cooperative-issued certificates had helped to deter land-based corruption facilitated within local government. Improved perceptions of the quality of land services or support that local government authorities provide in the years since the USAID Pilot project was common among the CATI survey respondents.

KEY RECOMMENDATIONS

Recommendations at follow-on aim to help USAID design and implement future AF-guided activities with respect to documenting land rights and linking such activities to broader efforts to strengthen land tenure security and minimize risks to communities affected by land-based outgrower opportunities through private firms. The recommendations are most relevant for activities that are similar in scope and context to the Pilot.

FOR USAID AND FUTURE IMPLEMENTING PARTNERS

- **Future land mapping and documentation activities should consider systematically offering land documentation services across all of the land-based investor firms' potential catchment area for outgrowing contracting, if feasible, or to a portion of the potential catchment via a strategy designed to facilitate a more rigorous understanding of impacts over time.** Despite strong achievements on tenure security and positive links between the Pilot's activities, increased outgrower engagement and related economic benefits for some beneficiaries, several factors may have dampened the potential demand and utility to farmers of the Pilot's documentation for outgrowing, hence potential impacts with respect to outgrowing engagement or future land-grabbing in the floodplain. The extent to which rigorous learning about Activity impacts is possible also relates to aspects of Activity implementation. Future activities can obtain deeper learning on potential impacts and the extent to which they can be attributed to the activity with confidence, via an implementation approach that is designed with such learning objectives in mind from the start.
- **Prioritize from Activity start identifying a feasible solution for the longer-term maintenance of the resulting cadastral system and beneficiaries' land rights information.** The Pilot's aim to embed these responsibilities within a local farmer cooperative made sense as a potential solution in the Pilot context but does not appear sustainable over the longer term given the cooperative's ongoing capacity challenges and apparent lack of incentive to continue these responsibilities indefinitely or after the Activity lifetime. As a result, there is also a risk that land use and transfer dynamics may revert back to informal transactions.
- **AF-guided Activities focused on land documentation should identify what other barriers to participation in land-based investment schemes intended beneficiaries face and consider companion programming to help address key barriers unrelated to land issues** (for example related to outgrowing extension, inputs, related technical support, clarifying and providing transparency on financing) or partner with others that are positioned to provide such

support. The scope of the Pilot, focused on easing the land documentation and tenure security constraints that landholders in the floodplain block faced with respect to engaging in outgrowing, was important but not sufficient for addressing the many other underlying barriers to entry that also limit many farmers' ability to participate in outgrowing in the Pilot context. The underlying challenges that communities face with respect to participation in land-based investment schemes are multi-faceted, and so AF-guided activities may similarly need to adopt multi-faceted strategies to reduce those challenges and achieve ultimate objectives.

- **To strengthen equitable achievements and reduce underlying participation challenges for a broader set of intended beneficiaries, AF-guided Activities should undertake broad situational analyses during Activity planning to determine for which types of potential beneficiaries land documentation and improved tenure security on their own might be likely to catalyze engagement in land-based investment opportunities, given program context.** This can include work with private sector partners at activity planning or early design stages to gain understanding about characteristics of successful farmers for the given land-based investment opportunity under consideration. For intended beneficiaries for whom land documentation and improved tenure security on their own are especially unlikely to be sufficient to overcome barriers to outgrowing engagement, additional streams of companion programming may be needed. The Pilot's land documentation appears to have inadvertently but disproportionately benefitted participants who were already better-positioned to take advantage of outgrowing. Taking such potential equity issues into account at Activity planning may also help ensure that achievements beyond tenure security can ultimately be obtained across a wider range of intended beneficiaries.
- **To strengthen the potential to achieve broad-based objectives related to women's economic and other forms of empowerment, future Activities should consider more targeted gender-based programming that also explicitly takes into account common land constraints women face in the Activity context.** Such constraints could be explored as part of Activity planning, to help inform the design and roll-out of a targeted gender-based strategy to achieve women's empowerment objectives, and could include attention to several systemic issues women often face such as land size, quality, and entry to markets in general.

FOR USAID AND PILOT IMPLEMENTING PARTNERS

- **Pilot IPs should prioritize obtaining resolution on Hluvukani's intended land registry administrative role and providing the required capacity.** Persisting capacity gaps within Hluvukani cooperative to manage the Pilot cadastral system and related responsibility regarding the cooperative-issued certificates poses a concern for the longer-term sustainability of the Pilot's achievements. Resolving this could also entail exploring alternative solutions that move away from the reliance on Hluvukani in future, if more sustainable local alternatives or those that are more directly embedded in national land administration systems are now available.
- **Pilot IPs should work with farmer associations and Hluvukani to identify individuals with unresolved participation issues and ensure, at minimum, that all who were issued certificates are able to obtain the physical document.** For Pilot participants with unresolved questions around their inability to have their land mapped or receive certificates, Pilot IPs should also conduct systematic outreach with each of the farmer associations involved in the Pilot to ensure the reasons for this are clearly understood and communicated back to members.

INTRODUCTION

This report presents findings of a follow-on performance evaluation (PE) of USAID’s Public-Private Partnership for Responsible Land-Based Investment Pilot (“the Pilot”) in Mozambique. The Pilot was a 3-year program implemented during 2017-2019 in Manhiça District of Mozambique, implementing in two phases, by local implementing Terra Firma together Maragra/Illovo local partner. This follow-on PE was commissioned by USAID and conducted during June – December 2022 by NORC at the University of Chicago, under the Communications, Evidence, and Learning (CEL) project (contract number GS00F061GA/7200AA18M00006). The evaluation design, baseline and endline were also led by NORC, during 2017-2019, as sub-contractors to MSI under the E3 Analytics and Evaluation Project (E3/EAP).¹

Evaluation findings draw on desk-based document and data review and primary qualitative data collection conducted in August-October 2022 with a range of Pilot beneficiaries, local implementing partners and other stakeholders. This was accomplished via 16 group discussions (GDs) held with 152 participants (57 men and 95 women) and conducted in 5 of the 10 floodplain blocks where the Pilot was implemented, 16 key informant interviews (KIIs) held with a range of Pilot stakeholders (community leaders (3), farmer association leaders (7), Hluvukani cooperative leadership (2), Maragra liaisons (2) and local implementing partners (2)), and a community-assisted telephone interview (CATI) survey with 534 Pilot beneficiaries.

RLBIP ACTIVITY AND EVALUATION BACKGROUND

RLBIP ACTIVITY OVERVIEW AND OBJECTIVES

The Pilot was a USAID/Illovo Sugar Africa partnership initially implemented under the Evaluation, Research, and Communications (ERC) task order and later extended by USAID’s Integrated Land and Resource Governance (ILRG) activity. The Pilot initially supported approximately 1,885 farmers in land mapping and strengthening their rights to land within a flood protection scheme surrounding the Illovo Maragra sugar estate located in Mozambique’s Manhiça District. The Pilot aimed to improve land tenure security for smallholders and their opportunities for economic empowerment. It included activities to map and register land rights through locally-issued Land Rights Declarations, which confirm landholders’ acquisition of Law of Use Rights and Tenure (DUAT) rights, and facilitate applications for DUAT title per Mozambique’s Land Law.

The Cloudburst Group implemented the first phase of the Pilot in Mozambique from December 2016 to March 2018, working with local consortium partners Terra Firma, Hluvukani Sugar Cane Producers Cooperative and Illovo Sugar Limited through its local subsidiary Maragra Açúcar Limited (Maragra). The Pilot was implemented in rehabilitated floodplain zones near the Maragra nucleus sugarcane estate, 75 kilometers north of Maputo. During its initial implementation period, the Pilot was layered over two livelihoods-oriented projects funded by the European Union (EU) that operated in the same floodplain area and rehabilitated existing flood protection infrastructure and building new drainage and pumps infrastructure. The EU projects also established partnerships with Maragra and several farmer

¹ The Baseline and Endline reports for this evaluation, which include additional Pilot and development context, are available here: https://pdf.usaid.gov/pdf_docs/PA00T5HW.pdf and https://pdf.usaid.gov/pdf_docs/PA00WFB9.pdf

associations with the aim of expanding the number of sugarcane outgrowers and the quantity of outgrower-produced sugarcane for milling at the Maragra estate.

Among other objectives, the Pilot was intended to provide learning on how implementation of components of the Analytical Framework for Land-Based Investments in African Agriculture (the AF)² helps private firms to understand and manage risks related to land-based investments, and the extent to which this leads to improved outcomes for members of communities affected by those investments.

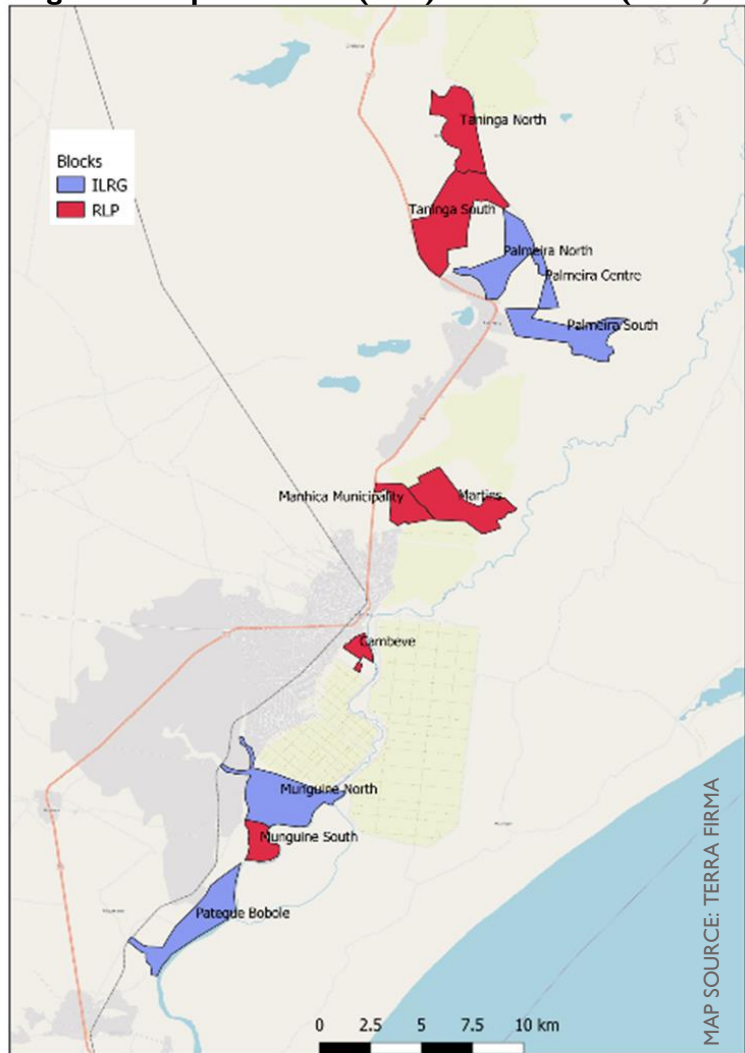
The Pilot in Mozambique included three main components:

1. A land rights and Pilot participation sensitization period, followed by initial assessment and registration of Pilot beneficiaries;
2. Land mapping and parcel registration; and
3. Providing interested beneficiaries with a certificate of proof of acquisition of Right of Use Rights and Tenure (DUAT) rights, issued by Hluvukani Cooperative.

The cooperative-issued certificate confirms the land holder's land use rights and was considered by Pilot IPs to be a legal equivalent to a DUAT title for the purposes of establishing a landholder's DUAT rights to the land per Mozambique's Land Law. However, it is not a government document.³

Phase I of the Pilot implementation operated in six blocks of the flood protection scheme near the Maragra estate. Distributed across the South, Central and North zones of the floodplain, these blocks were: Munguine South, Cambeve, Manhiça, Martins, and Tanginga North and South. During Phase I, the Pilot activities resulted in 1,733 cooperative-issued certificates of documented land rights issued to beneficiaries in the target zones, and 1,741 parcels were mapped.⁴

Figure 1: Map of Phase I (RLP) and Phase II (ILRG)



² Documentation available [here](#) and [here](#).

³ The Pilot also planned to issue a DUAT title to a subset of beneficiaries, which affirms the title holder's right to use and benefit from the land according to Mozambique's 1997 Land Law. The Pilot shared parcel and registration data with GoM, but ultimately no DUAT titles had been issued to beneficiaries by the conclusion of Phase I or Phase II.

⁴ According to implementer data shared at follow-on.

A second phase of implementation took place under ILRG during 2018-2019, which extended the Pilot activities to land holders in four additional blocks in the same floodplain zone: Palmeira North, Palmeira Center, Palmeira South, and Munguine North. The Pilot also aimed to work in a fifth block during Phase II, Pateque Bobole, but ultimately was not able to delimit any parcels in that block due to ongoing land conflicts that could not be resolved. Phase II reached an additional 710 farmers and 1,184 parcels in those blocks.⁵ In total, the Pilot issued land certificates for 2,917 parcels across the 10 blocks to 2,040 parcel holders, covering an area of 2,056 hectares.⁶ Implementer data at follow-on shows that the average parcel size delimited ranged from 0.2 to 1.6 hectares by block.

PILOT DEVELOPMENT HYPOTHESIS AND THEORY OF CHANGE

The development hypothesis for the Pilot anticipated that if private businesses such as Maragra appropriately apply the AF as part of their land investment, acquisition, and management activities, these firms would (1) be able to identify and understand individual and community land tenure risks, and (2) be more likely to adopt approaches to avoid these risks. Together, this was anticipated to mitigate tenure insecurity and related risks to those in affected communities, such as farmers who have land in the floodplain areas around Maragra.

Within the affected communities, USAID believed that firms' use of the AF and the related Pilot activities will improve community members' perceptions of the firm, their relations with and participation in land-based investment schemes, and their participatory inputs into land use and investment opportunities compared to when companies implement land-based investments without following AF guidance. USAID expected this to improve tenure security within the affected communities, including lowering the perceived risk of land expropriation and reducing land disputes among individuals. In turn, community members' improved knowledge of their land rights, tenure security, and perceptions of the firm were anticipated to lead to increased interest and ability for land users to engage in land-based investment opportunities and to benefit economically from their land. The Pilot evaluation focuses on these components.

The TOC also anticipated benefits for private firms, including lower risks of land-based investments, improved community engagement, and ensuring a clear set of standards for investment decision-making, all of which may lead to an improved operating environment for the firm. Attention to this was outside the scope of the Pilot and this evaluation. Annex D shows the full Pilot TOC.

EVALUATION OF THE PILOT CONDUCTED UNDER E3/EAP

USAID commissioned an evaluation of the Pilot activities in 2016, under the E3/Evaluation and Analytics Project (EAP).⁷ The evaluation was designed to examine how the application of the AF affected community perceptions and actions as they related to land management, tenure security, and engagement with private sector investors.

⁵Oct-Dec 2019 ILRG Quarterly Report.

⁶Per ILRG Oct-Dec 2019 Quarterly Report and Phase II documentation shared by IPs.

⁷Persha, L. and J. Patterson-Stein. 2019. *Final Evaluation Report: Performance Evaluation of the Responsible Investment Pilot in Mozambique*. USAID. Washington, DC. The 2019 Endline final evaluation report is available [here](#) and the 2017 Baseline report is available [here](#).

The evaluation was initially structured around four overarching evaluation questions (EQs):

1. How has community participation in AF-guided activities under the Pilot affected how community members perceive and engage with land-based investor companies and schemes?
2. To what degree have community-level objectives of the AF-guided activities under the Pilot been achieved, and what explains where successes, failures, or unanticipated effects have occurred?
3. How well do the AF-guided activities under the Pilot meet underlying challenges and the needs of communities with respect to participation in or locational proximity to new or existing land-based investment schemes?
4. What are the lessons learned from the AF-guided activities under the Pilot that can inform future application and dissemination of the AF to better achieve intended community-level objectives?

Several lines of inquiry within each EQ were developed for endline in 2018 and this follow-on PE.

EVALUATION PURPOSE, AUDIENCE, AND USES AT FOLLOW-ON

PURPOSES AND INTENDED USES

As for prior rounds of this evaluation, the follow-on evaluation focuses on Pilot outcomes for individuals within communities affected by land-based investments. The overarching purpose of this follow-on evaluation is to understand how Pilot activities and the cooperative-issued certificates, specifically, have affected participants perceived land rights and control over land, land tenure security, perceptions of and engagement with, and ability to benefit from sugarcane outgrowing schemes, and their broader economic and livelihood situations. The evaluation also seeks to document broader achievements from the Pilot, provide explanations for successes, failures and any unanticipated consequences that may have occurred, and summarize key lessons learned and recommendations that may inform planning and implementation of similar efforts in future.

The evaluation serves as a platform for learning about how the implementation of different components of the AF affects firms and community members, together with how locally-issued certificates to document land rights affects a range of outcomes of interest. Findings from this follow-on PE particularly aim to inform current and future USAID programming, and potentially that of other stakeholders, on the use of locally-issued certificates to document land rights and obtain improvements in women's tenure security and economic empowerment via outgrowing or other land-based opportunities.

AUDIENCES

The primary audiences for the evaluation are USAID/DDI/EEI, USAID/Mozambique and the Government of Mozambique. Secondary audiences include the Pilot Implementing Partners (former ERC and ILRG implementing partners, including Terra Firma, Hluvukani Cooperative, and Illovo Sugar), and other stakeholders in the broader donor and private sector communities working on the intersection of customary land formalization, land policy and agricultural investment.

LEARNING PRIORITIES FOR FOLLOW-ON

Based on discussion with USAID, ILRG and local implementing partners Terra Firma and Illovo, the follow-on evaluation adopted additional learning priorities related to:

- Women’s empowerment
- Economic and broader livelihoods benefits as a result of the cooperative-issued certificates
- Beneficiary demand for certificate updating
- Changes in Hluvukani roles and capacity for land administration and meeting constituent outgrower and broader production needs
- Land aggregation for sugarcane outgrowing and equity issues on land access and benefits-sharing
- Perceptions of Maragra Açúcar and Hluvukani
- Specific role of Pilot activities in changing participant views on local government land-related services, land-grabbing, corruption, and other sources of tenure insecurity they may face
- Maragra grievance and remediation mechanisms

EVALUATION THEMES AND QUESTIONS AT FOLLOW-ON

Given new learning priorities for the follow-on PE, the evaluation team restructured the existing evaluations questions and themes of inquiry for follow-on as shown in Table I.⁸

⁸ Sub-questions in Table I reflect some additional modifications by the evaluation team from Activity planning stage to combine or further condense themes and remove redundancies across EQs.

Table I. Restructured Evaluation Questions for Follow-on

EQ 1: Perception and Engagement with Land-based Investor Firms and Outgrowing Schemes

1. *Project achievements (Certification/Titling)*: What was the extent of parcel mapping, land certification, and DUAT titling that was achieved under the Phase II Pilot activities, in terms of individuals participating and area of land mapped within the Pilot zones? What are participants' overall perceptions of the activity?
 - a. Were there any challenges encountered by potential beneficiaries with respect to participation in the Phase II Pilot land-mapping and certification activities, and how were these resolved?
 - b. Were there any differences in participant's perceptions, challenges faced or resolutions across Phase I and Phase II implementation? If yes, what are main reasons why?
2. *Project achievements (Access to Outgrowing)*: To what extent did the Pilot activities enable beneficiaries to have greater access to or participation in outgrower schemes through Maragra Açúcar?
3. *Investor engagement*: How have the Pilot activities affected land user perceptions of and engagement with outgrower schemes through Maragra Açúcar? To obtain an outgrowing contract with any other buyers?
 - a. How has participant in Pilot activities changed land holder's perceptions of Maragra Açúcar, if at all, and what are the reasons for any changes?
 - b. How have the certificates, the mapping process, and the provisioning of land documentation contributed to obtaining contracts, if at all? What barriers do participants continue to face, if any?
4. *Beneficiary perceptions and engagement with Hlulukani*: What are participant perceptions of and engagement with Cooperativa Hlulukani Varime over certificate distribution and administration? More generally?
 - a. Do participants know how to make updates to their certificates, if desired, and who to contact?
 - b. What is the current demand for making changes to certificates, and how are certificate updates being accomplished? What types of changes would certificate holders like to make, if at all (for example, related to: land holder death, land transfers, parcel subdivision, boundary changes)?
 - c. If participants are not making updates to their certificates, what are the reasons why?
5. *Hlulukani roles and capacity for land administration among its farmer association constituents*:
 - a. How has Hlulukani's capacity to manage and administer the land certificates changed? What challenges have they faced and how have these been resolved? What challenges to they continue to face and what type of support would they need to overcome those challenges? What is their current system for tracking certificates and keeping their registry up to date? Are there any key ways this could be improved to strengthen the overall sustainability of the system into the future?
 - b. How has their role as an umbrella organization for local farmer associations changed as a result of the pilot? What challenges do they face and what support would help to overcome that?

EQ 2: What community-level objectives of the Pilot activities have been achieved, and what explains where successes, failures or unanticipated effects have occurred?

1. *Land Rights*: In what ways has implementation of the Pilot activities affected land user knowledge of land rights and perceptions of transparency with respect to land access, allocation, and confirmation of land rights, in the Pilot zone?
 2. *Tenure Security and Land Disputes*: How have the Pilot activities (sensitization, land mapping and provisioning of DUAT titles or certificates of proof of DUAT rights) affected land users perceptions of tenure security, vulnerability to land conflict or disputes, and risk of land expropriation in the Pilot zone?
 - a. In what ways has the land mapping and documentation process, and receipt of certificates, specifically affected participants' views on: land-grabbing by internal and community outsiders, land-related corruption by local officials, and other sources of land tenure insecurity they may face?
 3. *Benefits of Cooperative-Issued Certificates*: How have participants tangibly benefitted from the cooperative-issued certificates, whether related to outgrowing, tenure security, broader livelihoods benefits, or otherwise? For those who may not have felt they have benefitted, what are the main reasons why?
 - a. Have certificate holders experienced any changes in access to, demand for or cost to rent in or out land as a result of the Pilot activities (or any broader effects on informal land markets)?
 4. *Grievance and Remediation Mechanisms*: To what extent are Pilot participants and other land users aware of and utilizing Maragra's grievance mechanism to raise and obtain resolution on land and related complaints through the company? For those who have used or engaged in this process, what were the outcomes?
-

Table 1. Restructured Evaluation Questions for Follow-on

EQ3: How well do the Pilot activities meet underlying challenges and needs of communities with respect to participation in or proximity to new or existing land-based investment schemes?

1. *Participation*: What are the primary reasons that land users in the Pilot zone do not participate in outgrower opportunities with Maragra estate? To what extent were Pilot activities able to address these barriers?
2. *Land Aggregation to Facilitate Outgrower Contracting*: To what extent have participants chosen to aggregate their land to facilitate obtaining collective outgrowing contracts and benefits from sugarcane production?

EQ4: What are the key lessons learned from the Pilot activities that can inform future application of the AF to better achieve intended community-level objectives?

1. *Overall Effectiveness and Longer-term Sustainability*: What is the effectiveness of the cooperative-issued certificates to achieve tenure security and outgrower participation goals? Are there any steps that could be taken to improve the likelihood for sustained achievements over time?
2. *Economic Benefits and Broader Livelihoods*: To what extent has participants' possession of cooperative-issued certificates played a role in improving their agricultural production, farm-based income, and broader livelihoods, whether through outgrowing or other routes? If no improvements, what are main reasons why?
3. *Women's Empowerment*:
 - a. To what extent has customary land formalization through cooperative-issued certificates increased tenure security for women beneficiaries? Has this led to their increased economic empowerment?
 - b. How has women's control over land and participation in land related decision-making changed, if at all? Have there been any positive or negative consequences, whether intended or not, to women as a result of having land registered solely in their name?
4. *Perceived Effects on Interactions with Local Government*: Do Pilot participants perceive any changes in land-related services provided by local government authorities as a result of the Pilot? What are key reasons for any changes or lack thereof?

EVALUATION DESIGN AND METHODOLOGY

OVERVIEW

The RLBIP follow-on PE is designed as a mixed-methods evaluation with a heavy reliance on GDs and KII qualitative data collection approaches. A non-experimental approach is used to explore the relationship between Pilot activities and outcomes for land users in the Pilot zone, using pre-post analysis. This type of evaluation can provide details about activity processes, general relationships between Pilot inputs and outputs, and beneficiary perceptions, but cannot definitively attribute outcomes to the Pilot activities. As for the baseline and endline rounds conducted previously, the evaluation at follow-on collects primary data from a diverse set of Pilot participants and stakeholders, via group discussions (GDs), key informant interviews (KIIs) and a computer-assisted telephone interview (CATI) survey. The evaluation questions are answered based on the primary qualitative and quantitative data, and in conjunction with Pilot implementation documents as available and applicable.

Consistent with previous rounds of this evaluation, the follow-on data collection focused on capturing experiences and perspectives of floodplain farmers in the Pilot zone to understand their experiences with the Pilot activities, receipt of formalized documentation of land rights, tenure security, ongoing concerns about land, and their engagement with and perceptions of Maragra and outgrowing. At follow-on, the evaluation was additionally focused on understanding whether and the extent to which the cooperative-issued land certificates facilitated by the Pilot had contributed to beneficiaries engagement in sugarcane outgrowing, their economic growth or other benefits more generally, and women's empowerment issues, together with the reasons why or why not.

The field-based qualitative data collection for the follow-on was conducted during September 2022 in Manhiça District, Mozambique. CATI survey implementation ran from October 19th through November 7th, 2022, and was led by the NORC team in conjunction with InterCampus, a local research partner based in Maputo, Mozambique. Qualitative findings were integrated with results from the CATI survey data and Pilot implementation documentation as relevant.

The follow-on PE used the same mixed-methods evaluation design and data collection approaches as the baseline and endline, with two key differences: (1) the CATI survey sample was expanded to include beneficiaries from Phase II of the Pilot implementation; and (2) the number of GDs was increased from eight to 16 in order to include beneficiaries from Phase II while also revisiting Phase I blocks and farmer associations that had participated in previous rounds of data collection for the PE.

GROUP DISCUSSIONS AND KEY INFORMANT INTERVIEWS

The PE adopts a mixed-methods approach with a primary focus on qualitative data collection. The evaluation team conducted 16 focus group discussions (GDs) held with members of 11 different farmer associations who have land parcels across different areas (blocks) of the Pilot zone and 15 key informant interviews (KIIs) with farmer cooperative and association leaders, community leaders, Maragra liaisons, and Pilot local implementing partner staff.

The GDs were conducted across a total of five blocks in the floodplain zones around the Maragra Estate (3 Phase I and 2 Phase II blocks), to ensure inclusion of a diverse set of beneficiary experiences and examination of potential context differences based on the location of beneficiaries land parcels, farmer association membership and participation in either Phase I or Phase II of the Pilot. The GDs convened an average of 10 participants per discussion and included 152 participants in total (57 men and 95 women). GD participants consisted of farmers who use land in the Pilot zone. Nearly all of the GD participants at follow-on had participated in various aspects of the Pilot activities although not all of them had received the Pilot-facilitated land certificate issued by Hluvukani cooperative.

The evaluation team conducted gender-disaggregated GDs,⁹ holding men's and women's discussions with members of farmers cooperatives from each of the selected blocks for data collection. The GDs were conducted in Changana by NORC's in-country evaluation team member, using semi-structured instruments that were based on the same tools used at evaluation endline in 2018 and updated to accommodate additional learning interests introduced for the follow-on PE (instruments used for follow-on are provided in Annex A and B). All qualitative tools and the CATI survey were tested in the field prior to use, with minor adjustments made to clarify the meaning of questions, length and overall flow. The GDs were organized with the assistance of farmer cooperative leaders and Hluvukuni, together with appropriate notification and authorization by local authorities as needed and held at common



Women gathering for a GD near their land parcels in the floodplain.

⁹ Two of the 16 GDs were conducted as mixed-gender discussions because the total number of members for those farmer associations was too small to feasibly disaggregate by gender. Women and men spoke freely in these discussions. The evaluation team's experiences from baseline and endline also mitigated concerns regarding the potential for response biases or a difference in responsiveness from one gender group or another in this context.

outdoor meeting points for association members within or at the edge of each of the selected floodplain areas.

The KIIs were also conducted in-person by NORC staff or local consultants, with the exception of KIIs with implementing partner staff that were conducted remotely via Microsoft Teams by NORC. KIIs followed a semi-structured format to allow for follow-up questions and flexibility in the discussion. The KII protocol was structured to gather information on the respondent’s role and familiarity with the Pilot, reflect on the mapping and provision of cooperative-issued certificates, highlight benefits and potential limits of the certificates, and share lessons learned.

Table 2 provides an overview of the number of GDs and KIIs conducted across different beneficiary and other stakeholder types, together with the number of CATI survey respondents.

Table 2. Evaluation Sample at Endline and Follow-On		
Evaluation Sample	2018 Endline	2022 Follow-On
Implementation phase covered	Phase I beneficiaries	Phase I and Phase II beneficiaries
Number of blocks sampled	3 (all from Phase I)	5 (3 from Phase I; 2 from Phase II)
GDs conducted	8 GDs <ul style="list-style-type: none"> • 2-3 GDs held in each of 3 blocks • Members of multiple farmer associations per block represented in GDs • Mixture of gender-combined and gender-disaggregated GDs depending on feasibility 	16 GDs <ul style="list-style-type: none"> • 2-4 GDs in each of 5 blocks • GDs conducted with members of multiple farmer associations per block • Gender-disaggregated for 14 of 16 GDs
KIIs conducted	13 KIIs in total: <ul style="list-style-type: none"> • 4 farmer association leaders • 2 farmer cooperative leaders • 2 community leaders • 2 Illovo Pilot liaisons • 2 Pilot staff • 1 Maragra liaison 	16 KIIs in total: <ul style="list-style-type: none"> • 7 farmer association leaders • 2 farmer cooperative leaders • 3 community leaders • 2 Maragra Pilot liaisons • 2 Terra Firma local implementing partner staff
CATI survey participants	483	534

CATI SURVEY AND SAMPLE DESCRIPTION

APPROACH AND INSTRUMENT

The qualitative data are complemented by quantitative data obtained via a structured CATI survey administered to 534 beneficiaries, which provides supplemental quantitative data on targeted issues of interest, including: perceived tenure security, land documentation, disputes, sugarcane outgrowing and economic and broader livelihoods benefits. The CATI process involves developing a script for an enumerator to follow as part of a phone-based interview. Rather than an automated survey, or “robo-call,” CATI interviews are similar in many ways to a household-based survey with an enumerator and respondent going through a closed-ended survey.

The CATI approach was a particularly appealing and cost-effective for this evaluation, given short survey length, availability of beneficiary telephone contact information, that locations of respondents’ physical residences were unknown and spread across several different localities, and because it did not require survey teams to interact directly with respondents during the COVID-19 pandemic.

NORC collaborated with InterCampus, a Maputo-based research firm, to implement the 37-question CATI survey in either Changana or Portuguese, depending on respondent preference. Of the 37 survey items, there were 6 short opened-ended questions, with responses post-coded for analysis. The CATI survey at follow-on was adapted from the tool used for endline data collection and finalized after the qualitative data collection had concluded to enable the addition of certain questions and responses choices based on information obtained in the qualitative component of the study. It also followed best practices in CATI survey design, including keeping the survey administration time under 20 minutes, and focusing on single-choice, yes/no, short answer and short ranking questions.

The survey instrument was programmed by Intercampus, using Askia, and finalized by the evaluation team based on the results of a survey pre-test conducted with 16 respondents, survey piloting with 39 additional respondents, and through discussions with Intercampus.

SURVEY TRAINING

NORC conducted a one-day pre-test training on the survey instrument with eight data collectors from InterCampus on October 12, 2022, following remote review and discussion on the instrument. During the pre-test training, NORC and Intercampus discussed the background and objectives of the Pilot activity, pre-test objectives, informed consent, question-by-question review of the CATI tool in Portuguese and Changana, pair practice, and other administrative topics related to logistics. Intercampus completed 16 surveys for the pre-test data collection and discussed potential changes to the tool to improve clarity with NORC, and in advance of the full enumerator training. NORC then conducted a 3-day full enumerator training, pilot, and pilot debrief during October 14-17, 2022, which covered a similar set of topics as the pre-test training. The NORC team made additional minor updates to the survey and programming following the results of the pilot and prior to the launch of the full data collection.

SAMPLE AND DATA COLLECTION

At follow-on, the CATI survey sample was administered to 534 beneficiaries. This constituted 39.7 percent of the final 1,346 person sample with telephone contacts and 26.2 percent of the initial 2,042

person sample list received from implementers across Phase I and Phase II of the Pilot.^{10,11} Hluvukani's combined Phase I and Phase II beneficiary contact database for the Pilot, shared by Terra Firma, was used as a starting point to develop the sample frame for the survey at follow-on, and then updated by the survey firm through additional outreach to Hluvukani and directly with farmer associations. The initial contact database consisted of two separate sheets for Phase I and Phase II beneficiaries, and included beneficiary names, gender and telephone contact information if available.

NORC and InterCampus conducted additional quality assurance steps on the contact database to develop a workable sample of potential respondents. The initial dataset shared by Terra Firma contained a list of 2,042 beneficiaries (1,338 Phase I and 704 Phase II), of which 1,216 (59.5 percent) had telephone contact information. The telephone contacts were collected in 2017 and 2018 while the Pilot was still active and had not been updated since that time. NORC's additional data quality checks discovered approximately 30 duplicates, contacts that lacked the appropriate number of digits or were not formatted for numbers within Mozambique.¹² The survey firm's tests on beneficiary contact numbers also indicated that 55 percent of the telephone numbers were disconnected or no longer active (i.e., the enumerator received an automated out of service response with each attempt), which the firm attributed to a change in common cellphone service providers in the area since 2017/2018.¹³ To improve the sample frame, the survey firm conducted additional outreach with a list of farmer association leaders from associations that had participated in the Pilot, as provided by Hluvukani. This outreach resulted in an additional 317 beneficiary telephone contacts, of which 108 were beneficiaries in the database that previously had no telephone contact listed and 209 were updated phone numbers for beneficiaries that had a disconnected or invalid telephone number in the initial database.

As part of the CATI implementation, enumerators were trained to make ten call attempts across different times of the day and early evening to try to connect with respondents. The final beneficiary sample for the survey included 605 contacts with valid phone numbers. Of these 605 valid contacts, completed surveys were accomplished with 534 of them (88 percent). For the remaining 12 percent of the sample of valid contacts, enumerators were unable to schedule an interview appointment within the data collection time frame for 50 of them (8 percent of the valid contact sample), the respondent was not reachable after ten attempts for 10 of them (2 percent of the sample), and 11 of the respondents refused to be interviewed (2 percent of the sample).

¹⁰ At endline the CATI survey was administered to 483 beneficiaries, or 39.3 percent of the 1,229 person sample shared by implementers. At follow-on, NORC similarly aimed to survey 40 percent of the combined Phase I and II beneficiary sample.

¹¹ Of the 2,042 person beneficiary database shared by implementers at follow-on, 826 (40.5 percent) did not have a telephone contact (by phase: 504 of the 1,338 Phase I name records (37.7 percent) and 322 of the 704 Phase II records (45.7 percent).

¹² A standard Mozambican phone number format contains nine digits and begins with a two-digit network code.

¹³ According to the survey firm, Tmcel was a common service provider in the area in 2017-2018 but had lost most of their market share to other providers by 2022.

Figure 2: CATI Response Rate for Beneficiary Sample of 1,346 Contact Numbers

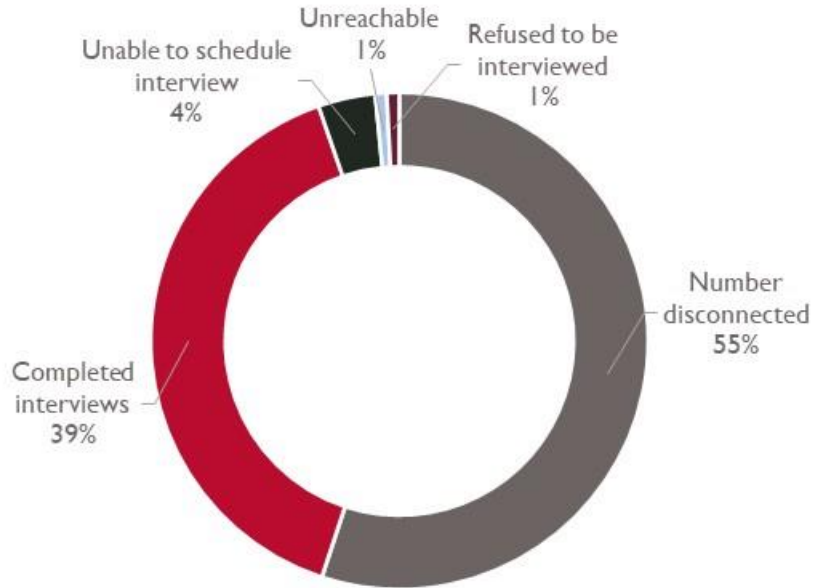
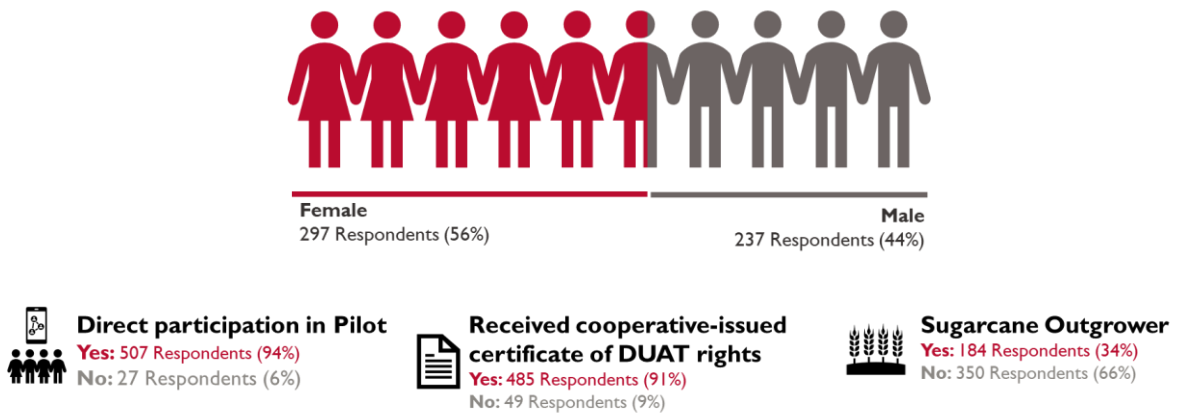


Figure 3: Descriptive Statistics for CATI Sample (N=534 Respondents)



SITE SELECTION FOR QUALITATIVE DATA COLLECTION

Pilot activities were implemented with interested land users in 10 rehabilitated floodplain blocks in the Pilot zone. The blocks are all close to the main highway traversing the area, bordered by the Incomati River or a secondary channel on one side and a peri-urban set of localities on the other, and are easily accessible to Manhiça town and Maputo. Parcel holders reside in any of the surrounding localities.

Site selection for the qualitative component of the evaluation focused on selecting 1-2 floodplain blocks per Pilot implementation phase, across each of the three zones in the Pilot area, and then recruiting GD participants from among the farmer associations in those blocks registered with Hluvukani and also via outreach to community leaders adjacent to the respective blocks. At follow-on, the data collection aimed to revisit the same blocks and range of farmer associations that had participated in previous rounds of data collection for this evaluation, and to expand the data collection to also include participants from two of the four Phase II blocks. GD recruitment in the Phase II blocks followed the same process as had been used for Phase I in previous rounds of the evaluation.

The selection process aimed to ensure that the qualitative sample was comprised of respondents who were typical smallholders the Pilot aimed to serve, and within the floodplain block context of the Pilot areas. The selection process took into consideration that Pilot implementation did not aim to obtain systematic coverage and registration of every land parcel in each block. Instead, the Pilot worked primarily through local and self-organized farmer associations that were registered with Hluvukani cooperative, and leaders from communities adjacent to the blocks, conducting outreach and sensitization to generate interest in Pilot participation and then working from there to conduct land registration and associated activities with those individuals, farmer associations and association members who were interested to participate. Parcels held by the different members of a given farmer association are often spatially clustered within a given block, although parcels throughout the blocks can also be held by individuals who are not members of any farmer associations.

Data collection for the prior evaluation rounds focused on blocks in the Central and South zones of the Pilot area and was expanded to the North zone for the follow-on evaluation. At follow-on, one block per each Phase of the Pilot was selected for data collection among the cluster of blocks within each of the three zones, resulting in a total of five blocks for data collection. Together, the selected blocks for qualitative data collection at follow-on comprised 58.8 percent of parcels certified by the Pilot (N=1,198 parcels), 52.5 percent of the certificate holders (N=1,070 certificates), and 48.7 percent of the land area certified (N=1,002 hectares), based on records shared by implementing partners.

There is no systematic accounting of parcel and parcel-holder characteristics across the floodplain zones to provide a deeper understanding of the Pilot or evaluation sample representativeness of floodplain farmers more generally. Still, evaluation scoping prior to baseline suggested that parcels in each of the blocks are held predominantly by smallholders who live in the area, with few obvious differences in farm or farmer characteristics across the zones that might affect the representativeness of the sample given the blocks selected for evaluation data collection. The blocks in the North zone are located close to a competitor sugarcane estate, Xinavane, in addition to Maragra, and average parcel areas there appear to be significantly larger, as was also noted at baseline. Outgrowers with land in those blocks may choose to grow and sell cane to either company, while outgrowers in the other blocks are more likely to engage only with Maragra. The expansion of the Pilot during Phase II and evaluation data collection at follow-on to blocks in the North zone ensured greater inclusion of such farmers in the evaluation.

ANALYSIS METHODS

GDs were conducted in Changana, the predominant language spoken in the Pilot zones, while KIIs were conducted in Changana or Portuguese depending on respondent preference. The GDs and KIIs were recorded and then translated and transcribed to English for analysis. The evaluation team coded and analyzed these transcripts using content analysis techniques in which text was coded according to key themes and attributes of interest across the interviewees and discussion participants. Coding was done in accordance with a qualitative code frame developed on the basis of evaluation objectives and refined during the initial coding period. The team summarized responses related to each theme and included quotations from respondents to illustrate key findings. This included highlighting “outlier” responses and experiences, such that the range of responses are captured in the summary write-ups.

To inform the overarching conclusions and recommendations in this final evaluation report, the team triangulated coded text segments and findings across the sub-issues for the PE, organized by evaluation question and sub-questions under each EQ. Where applicable, findings are supported with key quotations and examples from the GDs and KIIs. The qualitative findings were then integrated with relevant data from the CATI survey, which provides an understanding of respondent experiences on targeted issues across a broader range of Pilot beneficiaries.

The evaluation team analyzed data from the CATI survey to calculate descriptive statistics using STATA. The team calculated frequencies across key variables of interest and also disaggregated them on the basis of gender, other respondent characteristics, Pilot Phase and location to explore and highlight differences on the basis of respondent characteristics, location and phase of Pilot participation. The CATI data are used to complement and expand on qualitative findings regarding tenure security, land disputes, possession and use of cooperative-issued certificates of land use rights, and related themes.

STRENGTHS AND LIMITATIONS

STRENGTHS

- **Mixed Methods Approach:** The evaluation draws on substantial GD and KII qualitative data obtained across a wide range of beneficiaries, local partners and related stakeholders, coupled with survey data from an expanded set of beneficiaries. The approach is well-suited for responding to the learning themes of interest for this follow-on.
- **Overlap of qualitative respondents across baseline, endline and follow-on:** The evaluation was not designed to obtain a panel of GD respondents across the pre- and two post-implementation data collection phases. The decentralized context of the floodplain blocks, with farmers living far from their parcels and each other, would have made coordination and planning for a panel logistically challenging ex-ante. Still, members of many of the same farmers associations participated in all three rounds of data collection. This strengthens the overall design and ability for the evaluation to discern changes over time and the Pilot’s contribution to any changes observed.
- **Evaluation team continuity across data collection rounds:** The evaluation benefits from having the same evaluation team lead and in-country data collection coordinator and evaluation

specialist at follow-on as for the baseline and endline rounds. This enabled the evaluation team¹⁴ to draw on depth of experience with the Pilot and beneficiary context from Pilot start, helped to strengthen respondent trust to participate in the data collection and speak freely about their experiences, and facilitated smooth outreach to farmer associations and other stakeholders.

LIMITATIONS AND POTENTIAL SOURCES OF BIAS

- **Lack of a counterfactual:** The design for this performance evaluation does not use a counterfactual approach, which means the evaluation results cannot be definitively attributed to the Pilot and could instead be the result of other factors or processes that also operated in or affected the Pilot zone. This limitation is mitigated to some extent by the collection and triangulation of qualitative data across different sources, but the ability to fully mitigate this issue is limited. However, the design deploys a pre–post approach wherein questions asked at baseline, endline and follow-on during GDs aim to help capture information on potential confounding factors.
- **Response bias:** Of those respondents who are available, there may be bias in the types of responses they give because of an expectation that the study team is looking for a certain type of answer. To mitigate this, the evaluation team rigorously tested its discussion guides and survey instruments to ensure the purpose of the study was clear, no leading questions or primes that could skew responses, and respondents felt comfortable speaking openly. The team also used response coding and post-interview analysis to help identify if responses were skewed in some way.
- **Recall bias:** Some evaluation topics, such as disputes or perceptions about specific actors, may be difficult for respondents to remember accurately as time passes. Recall bias may lead to exaggerated negative or positive perceptions of past experiences, as people may remember only key aspects or feelings over time. The evaluation team at follow-on was able to draw on data collection experiences at baseline and endline data to refine the approach for certain topics, such as disputes. The CATI data provided another source to triangulate findings and assess the potential for recall bias in the qualitative data.
- **Selection bias:** The evaluation team took steps to minimize selection bias, but the non-random nature of this evaluation means there is a potential for selection bias to be present. Respondents willing to share their views in group discussions may not be representative of Pilot participants more broadly. The qualitative approach aimed to include respondents with a range of Pilot experiences, distributed across several farmer associations and blocks where the Pilot was implemented. However, respondents participated based on their availability and willingness to respond. The inclusion of a broader sample of Pilot participants for the CATI survey and corroborating qualitative findings with CATI survey data for key topics such as disputes and certificate provision, helps to mitigate potential bias stemming from the non-random sample of qualitative participants. Also, the selection of respondents for the CATI survey was limited to beneficiaries who provided a telephone contact number during the Pilot activities or could provide one as part of the survey firm’s outreach to farmer associations who participated in the Pilot. CATI survey respondents may thus be skewed towards those beneficiaries who have and regularly use cellphones, which in turn could align with factors such as age, wealth status or technological skills.

¹⁴ See Annex C for Follow-on evaluation team composition.

EQ1: HOW HAS PARTICIPATION IN THE PILOT AFFECTED BENEFICIARY PERCEPTION AND ENGAGEMENT WITH LAND-BASED INVESTOR COMPANIES AND OUTGROWER SCHEMES?

FINDINGS

Key Findings Summary for EQ1 at Follow-on

- **Phase II participants generally reported positive experiences with the Pilot's land mapping, verification and cooperative-issued certificates, but some continued to experience unresolved issues around land mapping or receipt of their certificate.** There were no key differences in pilot participation or nature of challenges for beneficiaries from Phase II relative to Phase I. The Phase II work accounted for 41 percent the Pilot's overall parcel mapping and certification and 35 percent of certificate holders and area of land mapped. Participants in half of the GDs at follow-on highlighted cases where some parcels had not been mapped despite interest to participate, or they had only received a certificate for some of the parcels mapped by the Pilot. Participants did not know the reasons why, were not sure how to follow-up with Pilot staff or had tried to follow-up without success. Similar to endline, these challenges appeared to stem from a communications gap between Pilot beneficiaries and extension staff, such that when issues arose, participants were not able to communicate these up and obtain resolution.
- **Beneficiaries felt the cooperative-issued certificates reduced their documentation barrier to outgrowing.** Farmers viewed the cooperative-issued certificates as a way to meet the documentation requirement for outgrowing contracts, noting that other forms of accepted documentation can be more difficult to obtain. At follow-on, the cooperative-issued certificates were seen to confer legitimacy for future engagement with Maragra and outgrowing more generally.
- **Use of Pilot documentation to access outgrowing schemes has grown since the 2018 endline but is still relatively uncommon.** 57 percent of outgrowers in the CATI sample reported the certificate had helped them in some way for outgrowing. But, only 16 percent of CATI respondents who started outgrowing during or after the Pilot period had used their cooperative-issued certificates in the contracting process. Other forms of documentation continue to be more commonly used and many outgrowers at follow-on were never asked to provide their certificate. The CATI findings do suggest an association between the Pilot and new outgrowing participation: the number of Pilot beneficiaries who obtained an outgrowing contract did increase substantially during the Pilot intervention years, although is not possible to fully attribute this to the Pilot.
- **The Pilot activities did not appear to change broader perceptions of Maragra among Pilot beneficiaries,** even if a greater number of Pilot beneficiaries have engaged with Maragra via their outgrowing activities since the Pilot activities concluded. The land mapping and cooperative-issued certificates clearly strengthened land users' tenure security in the Pilot zones (see EQ2), but it was less common for Pilot beneficiaries to link the document or Pilot activities directly to obtaining outgrowing contracts.
- **Many beneficiaries remain mistrustful of sugarcane outgrowing via Maragra and also face high entry barriers unrelated to land certification.** Consistent with endline, many GD participants expressed strong reservations about outgrowing. This was partly due to general risk aversion, but also mistrust of the process via Maragra, and inputs and skills barriers and fixed constraints such as small parcel size (discussed more in EQ3).
- **Hlulukani capacity to manage the Pilot land registry and land certificates remains low at follow-on and poses a concern for longer-term sustainability of their envisioned local administrator role.** At follow-on, Pilot beneficiaries had little to no engagement with Hlulukani. The demand for making changes to certificates was also very low at follow-on and many beneficiaries were not aware of the appropriate entity to contact.

PILOT ACHIEVEMENTS AND CHALLENGES WITH PHASE II PARCEL MAPPING AND CERTIFICATION

ACHIEVEMENTS

- What was the extent of parcel mapping, land certification, and DUAT titling that was achieved under the Phase II Pilot activities, in terms of individuals participating and area of land mapped within the Pilot zones? What are participants' overall perceptions of the activity?
- Were there any differences across Phase I and Phase II implementation? If yes, what are main reasons why?
- Do participants who waited to engage in the Pilot until Phase II (but were eligible in Phase I) have different perceptions or outcomes from others?¹⁵

According to implementer data summarizing parcel delimitation and certification across the different Pilot blocks during Phase I and Phase II, the Pilot mapped 1,187 parcels across the Phase II blocks, of which 1,184 (99.7 percent) were issued land certificates. These parcels were held by 706 individuals and covered an area of 712.8 hectares. The extent of work conducted under Phase II accounted for 40.5 percent of all parcels delimited and certified, and 34.7 percent of all certificate holders and area of land mapped by the Pilot across both phases. Figure 4 shows the average parcel size in hectares that was mapped and certified, for parcels mapped in each of the Pilot floodplain blocks. The average parcel size in the northern zone blocks (Taninga North, Taninga South, Palmeira North, Palmeira Central and Palmeira South) was significantly larger than those in the central and south zones, where many landholders farm on very small parcels of land under 0.5 hectares in area.

Figure 4: Mean Parcel Size Delimited by Block

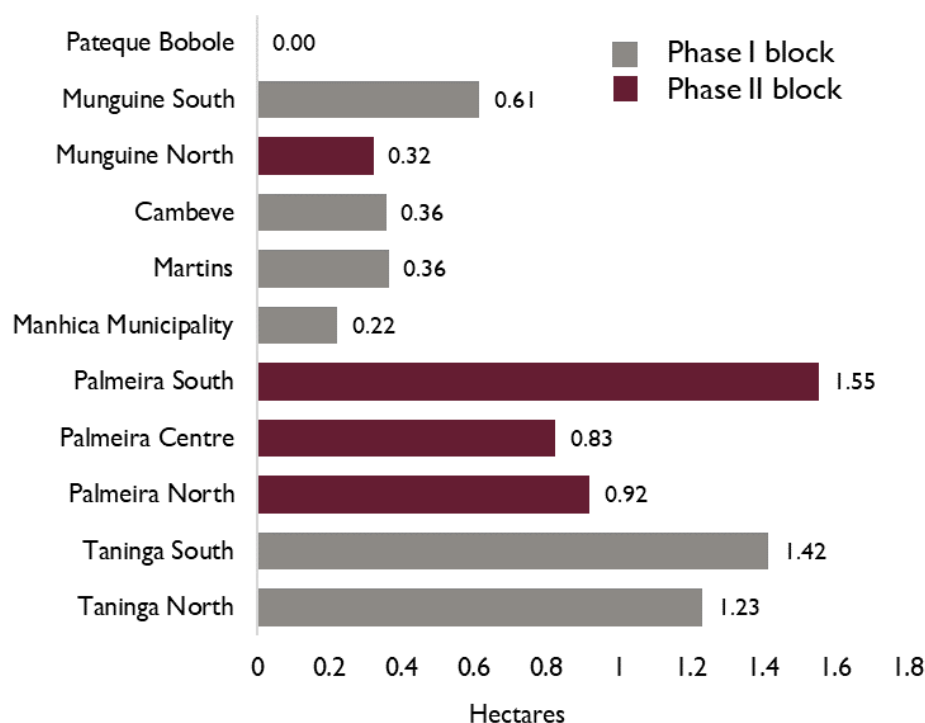


Figure Note: Pilot blocks are ordered by geographic location within the Pilot zone, from South to North, which shows that the average parcels sizes mapped by the Pilot were larger in the Palmeira and Taninga blocks in the North.

¹⁵ The GD and CATI samples did not appear to have any such individuals, hence the evaluation is not able to shed light on this.

Across the GDs conducted at follow-on, participants' overall perceptions of the Pilot's land mapping, verification and cooperative-issued certificates was generally positive, with no discernable differences across those who had land in blocks covered during Phase I relative to Phase II. Participants across half of the GDs indicated that everyone who wanted to participate in the pilot was able to (8 of 16 GDs conducted). The remaining GDs highlighted minor (4 GDs) or more major (7 GDs) participation issues that had affected people's overall perceptions and left some individuals without certificates despite their interest or participation in different elements of the land certification process.

“Everyone joined the project at the first opportunity, they explained to us about its importance, we realized that it was going to help us protect our land.” – GD participant, Phase I block (men's group)

“There are no people that chose not to participate. Everyone wanted to participate.” – GD participant, Phase I block (mixed gender group)

“Nobody has had any challenge to participate. The extensionists have passed by several times to check who had not yet been mapped, and the lands that have not been mapped are the ones we said were there after the big road.” – GD participant, Phase I block, (men's group)

“There were no challenges. Even to ensure that no one was left behind, they posted a list of all the people who were mapped before they started distributing the certificates, to confirm the data, and only after that did they bring the certificates.” – GD participant, Phase I block (men's group)

The **minor issues** highlighted in 4 GDs (3 Phase I blocks and 1 Phase II block) included cases where a small number of individuals were not able to participate because they were not present on the days that Pilot staff came to measure and register land parcels in that block. In another GD, held with women farmer association members from a Phase I block, some participants noted that some people they knew had not participated in the Pilot because they feared it would result in their land being sold.

The more **major issues** noted by participants from multiple farmer associations across 3 of the Pilot blocks (7 GDs in total; 6 Phase I and 1 Phase II) stemmed from two different types of situations in which a larger number of people who were interested to participate or had participated in land mapping and verification ultimately had not been able to complete the process nor get resolution on their issue. The two types of situations they described were cases where: (1) Pilot staff had not mapped all of the parcels held by members of their farmer association and they did not know the reason why; or (2) individuals had multiple parcels mapped but only received certificates for some of those parcels and did not know the reason why. For these situations, GD participants said they either did not know how to follow-up on the issue, they had not followed up because they had assumed the Pilot staff would eventually return (although they did not), or they had tried to follow-up with multiple people without success.

In one example, participants from a men's and a women's GD noted that some people from their association could not participate in the Pilot due to their farms being flooded during the parcel mapping. These farms were not accessible to the mapping team during the scheduled mapping, and the Pilot extension workers did not return to cover those areas after the flooding had subsided. As a result, several individuals who were interested to participate did not have their land mapped nor receive a land certificate: *“There was a situation where some of the lands were flooded. According to the project workers, they intended to reach that area too, but because of the water, those lands didn't get mapped. So, the people who have lands there were unable to participate.”* – GD participant, Phase I block (men's group)

In 3 other GDs, participants said Pilot staff had worked in part of their farmer association’s land area but had not conducted their land mapping and registration activities in another part of the floodplain block where members of the association also had land, and participants did not know the reason why.

“Not everyone was able to participate. In our area they measured one side and left the other. At that block, we have more lands that they didn’t do the mapping in. They promised to come back to continue the job but they never came back. That’s why in our association around half of the members don’t have the [certificates].” – GD participant, Phase II block (mixed gender group)

“Here, [lands from] only two associations are mapped. There are several others that were left out. The project people said that they would not cover that area and that maybe it would be for the next one; we were lucky to be selected.” – GD participant, Phase I block (men’s group)

In three other GDs, a small number of participants mentioned having some of their land mapped but not receiving for the certificate for that land and not knowing the reason why nor whom to follow-up with.

“They mapped and verified 5 parcels of mine, but I have received [the certificate] for 4 – one of them is still missing. ...this situation is not just mine, there are other farmers [from our association] in the same situation.” – GD participant, Phase I block (women’s group)

“... they mapped the two lands that I have, but I received DUAT for one of them only... [Moderator: Did you follow-up with anyone for help?] ... No, I didn't [follow-up with anyone], because I don't know whom to talk to.” – GD participant, Phase I block (men’s group)

Nearly all of the CATI survey respondents indicated they had directly participated in the USAID Pilot project (95.0 percent, N=508 of 534 total respondents). Among the small proportion who did not, the main reasons they gave were that they were not present during the mapping, had health issues, or were not aware of the project during that time.

The CATI survey results at follow-on also indicate widespread receipt of the cooperative-issued certificates among Pilot beneficiaries. **Among the 534 CATI survey respondents, 90.8 percent (N=485) said they received a certificate of their DUAT rights for land they use in the floodplain zone adjacent to Maragra, and there were no significant differences in the proportion who had received a land certificate based on respondent gender.** Approximately half of certificate-holders could recall the year they received their certificate. Among these 233 respondents, 95.3 percent (N=222) said they received their certificate during 2017 or after, with the vast majority received during the Pilot years of 2017, 2018 or 2019.

Many certificate holders among the CATI survey sample did not appear to associate the certificate with Hluvukani Cooperative, however. Among the 485 certificate holders in the sample, 59.1 percent (N=286) said they had received the certificate from Hluvukani, while 30.8 percent (N=149) named another source (in rank order: municipal government, Maragra, a farmer association, the European Union, or USAID) and 10.1 percent (N=50) did not know (no significant differences by gender of respondent or Phase). Some of these respondents could have been referring to the entity that physically distributed the certificate to them on behalf of Hluvukani.

Among the 44 survey respondents had not received the cooperative-issued certificate, 27.3 percent (N=12) said it was because they were not there on the day certificates were

distributed. The remaining 72.7 percent (N=32) said they did not know, had no information or in a few cases gave other reasons.

PARTICIPATION CHALLENGES AND RESOLUTIONS

- *Were there any challenges encountered by potential beneficiaries with respect to participation in the Phase II Pilot land-mapping and certification activities, and how were these resolved? How do challenges and resolutions differ across Phase I and Phase II implementation, and what are the main reasons why?*

Qualitative data at follow-on indicated no major participation challenges for the Phase II Pilot work beyond those mentioned in the section above. The nature of the Phase II challenges also do not differ substantively from those highlighted at 2018 endline for Phase I participants, nor those mentioned by Phase I participants in GDs held at follow-on. While these challenges are similar across the phases (individuals having their land mapped but not receiving a certificate for unknown reasons; not being able to have their land mapped due to flooding at the time of mapping; or some of a farmer association's land not being mapped at all), the GDs at follow-on suggest these may have been encountered more commonly among Phase I participants relative to Phase II participants.

The qualitative data at follow-on also suggests that at least some of the individuals from Phase I who had not received their certificate by Phase I end also did not receive a resolution to their issue during Phase II. In one such GD, held with women from a farmer association in a Phase I block, participants said there were three members of their group who had their land mapped during Phase I, received a receipt from that process, but did not receive a certificate by the end of Phase I nor were revisited after that. Other members of their group had received their certificates in 2017. As one woman explained:

“There are three people who were here that were mapped and had the mapping receipt, but did not receive the certificates. These people went after the local structures, they went to the Maragra, they went to the head of the union, but the certificates never appeared. We don't know what happened, maybe there were failures in the machines that make the certificates.” – GD participant, Phase I block (women's group)

Another example from a Phase I GD¹⁶, was described as follows by the participants: *“We don't know why, the truth is that not all of us had the certificates, and the mistake is on their side.”* And *“We don't know who to contact to get help. The DUATs were distributed here in this place we are seated, and some people weren't present on the day. Even me, I arrived late that day, looking for my DUAT, and the people who were there told me that the papers were taken back to Maragra. They said they would come back, but never [did]. Unfortunately, we never found out who can help us, and we still wait till today.”* – GD participant, Phase I block (women's group)

As was also noted at 2018 endline, the reasons for these types of challenges appear to stem from a communications gap between Pilot beneficiaries and extension staff, and unclear communication channels with Pilot implementers, such that when questions or issues arose, Pilot participants did not seem able to successfully communicate these back up to Pilot staff and receive resolution on their questions or concerns. GDs at follow-on suggest that the process did go smoothly in several of the floodplain blocks, regardless of Phase, but the evidence across multiple GDs of persisting coverage gaps

¹⁶ A similar situation was also described by participants from a Phase II GD.

and inability to resolve concerns for at least some participants due to communications issues appears to have resulted in their unwitting exclusion from ultimate benefits of the Pilot.

PILOT ACHIEVEMENTS ON ACCESS TO OUTGROWING AND INVESTOR ENGAGEMENT

- *To what extent did the Pilot activities enable greater access to or participation in company outgrower schemes, for land users in Phase I and Phase II Pilot zones?*
- *How have the Pilot activities affected land user perceptions of and engagement with outgrower schemes through Maragra Açúcar? To obtain an outgrowing contract with any other buyers?¹⁷ In what ways?*
- *What are participant perceptions of Maragra Açúcar more generally? How has participant in Pilot activities changed land holder's perceptions of Maragra Açúcar, if at all, and what are the reasons for any changes?*
- *How specifically have the certificates, the mapping process, and the provisioning of land documentation contributed to obtaining contracts, if at all? What barriers do participants continue to face with this, if any?*

LINKAGES BETWEEN PILOT ACTIVITIES AND GREATER PARTICIPATION IN SUGARCANE OUTGROWING

The follow-on results provide evidence that the Pilot activities did enable greater participation in sugarcane outgrowing to some extent, although the increase is relatively small and appears to be limited mostly to land users who may already have had the requisite capacity to engage in outgrowing but faced some hurdles in obtaining the acceptable forms of documentation for contracting with Maragra. The cooperative-issued certificates thus helped to reduce a documentation barrier to outgrowing, but land holders in the Pilot zones continue to face many other barriers to outgrowing that are unrelated to the Pilot activities (these are discussed in more detail in EQ3).

Results at follow-on also suggest that the Pilot activities did not substantially change land holder's perceptions of Maragra, even if a greater number of Pilot beneficiaries have engaged with Maragra via their outgrowing activities since the Pilot activities concluded. While the land mapping and cooperative-issued certificates have clearly strengthened land users' tenure security in the Pilot zones (see EQ2), it was less common for Pilot beneficiaries to link the document or Pilot activities directly to obtaining outgrowing contracts. A common reason for this appeared to be that individuals across several of the GDs and among CATI survey respondents had been able to obtain an outgrowing contract with Maragra without needing to show their cooperative-issued certificate. In other cases, individuals noted that the certificate had been helpful for obtaining their contract with Maragra, since the other types of documentation that Maragra also accepts as part of the contracting process was more difficult for them to obtain.

“With the [cooperative-issued certificates], more people started to grow sugar cane.” – GD participant, Phase I block (mixed gender group)

“Having the certificate did help to increase our economy because before it was not so easy to get into sugarcane cultivation... Before, one had to go after a declaration of land property with the local authorities, but this took a long time and was not always possible because there was need of involving witnesses, many people in the process, and even so, sometimes the information was not enough to have

¹⁷ The evaluation cannot speak to this in detail since Maragra is the main contracting opportunity available to most of the beneficiaries. A small number of GD participants mentioned selling their sugarcane to Xinavane, the other sugar estate near to the floodplain zone. This was uncommon overall, but more common among participants who have parcels of land in the northern zone floodplain blocks that are closer to Xinavane.

the contract. Now that the project came, we legalized several lands that we had, which gave us more space to grow sugarcane and other products to sell.” – GD participant, Phase I block (mixed gender group)

Participants from 2 GDs mentioned that the certificate had helped improve access to outgrowing contracts by reducing the main documentation barrier to obtaining the contract. Although participants could also obtain a contract by obtaining a declaration from local authorities attesting the land was theirs, this required obtaining witnesses and was seen as time consuming and difficult to obtain. The cooperative-issued certificates reduced the documentation hurdle that potential outgrowers faced.

“[Previously], in order to sell sugarcane to Maragra, we used to go after a sort of declaration with our community leaders to prove that the land is ours, and for that, we had to take some neighbors as witnesses to confirm that lands are from our families. But now everyone has their own [certificates] for their land, this makes it easy to sell sugarcane if you want to.” – GD participant, Phase I block (men’s group)

“Yes, we started to grow more sugarcane for Maragra, not because I couldn’t before, but having my land [certificate] motivated us, as it won’t be needed to gather people to testify that lands belong to us.” – male GD participant, Phase II block (mixed group)

The CATI survey at follow-on provided some additional evidence to support a link between the cooperative-issued certificates and an increase in outgrowing for Maragra among Pilot beneficiaries. At 2018 endline, CATI survey respondents said they needed to show an average of two documents as part of the outgrower contracting process. A government ID was the most common type of document provided, followed by a taxpayer identification number (NUIT). At endline, only 7 CATI survey respondents said they had used the cooperative-issued certificate to become an outgrower, while 16 percent (N=14) of the 87 outgrowers in the CATI survey sample at follow-on who remembered the year of their initial contract and began outgrowing during or after the Pilot said they were asked to provide their land certificate – still a relatively low proportion but a substantial increase over 2018 endline. **At follow-on, 34.5 percent (N=184) of CATI survey respondents said they were growing sugarcane for Maragra at the time of survey.**

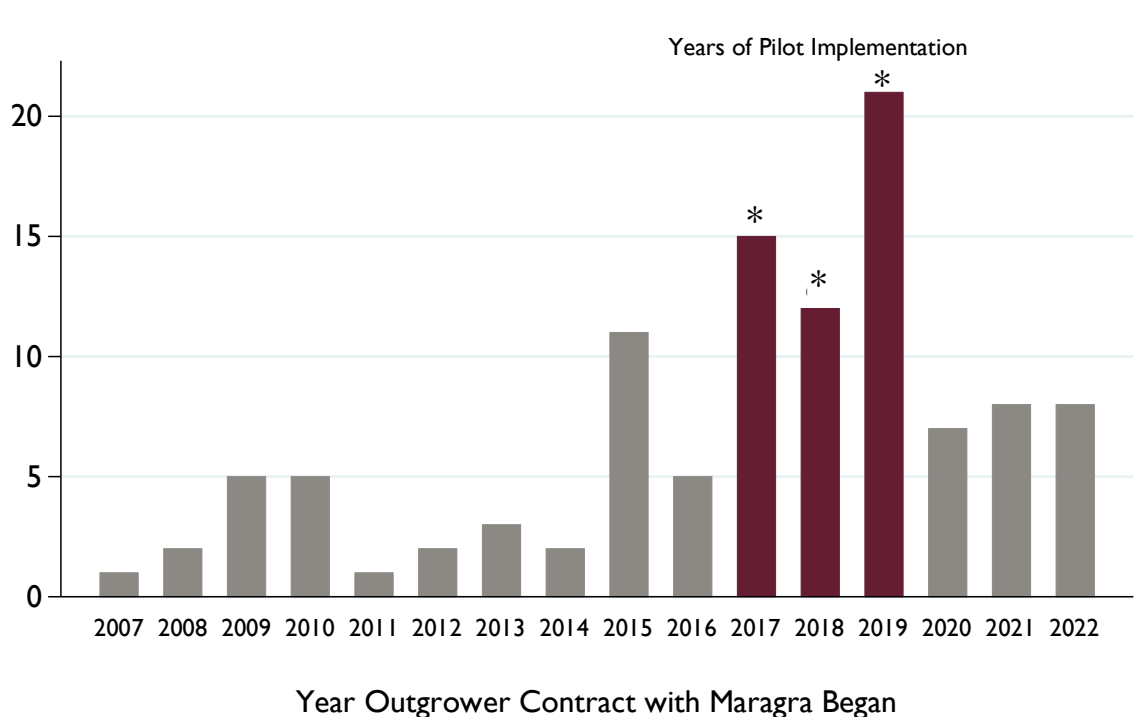
Most of these contracts at follow-on were individually held (69.6 percent, N=128), while 16.9 percent (N=31) were reported as collective outgrowing contracts. A small proportion, 13.6 percent (N=25), said they were supplying sugarcane to Maragra without a contract, via a relative’s contract, or did not know their contract type. Among survey respondents who reported outgrowing, 65.8 percent were men (N=121) and 34.2 percent were women (N=63), a significant difference. Overall, female respondents were 35 percent less likely to report growing sugarcane for Maragra than male respondents (P < 0.001).

The CATI survey data at follow-on suggest that the number of Pilot beneficiaries who obtained a contract for sugarcane outgrowing for Maragra increased substantially during the Pilot intervention years (Figure 5). Among the 108 respondents who knew which year their contract had begun, contracts had most commonly begun in 2017, 2018 or 2019.¹⁸ Among 143 respondents who recalled whether their contract had begun in the last 5 years (since 2018) or prior to then, 72 (50.3 percent) said their contract

¹⁸ The uptick in outgrower contracts in 2015 in Figure 5 may reflect an increase due to an EU-supported livelihoods program in the Pilot zone during that time that aimed to involve eligible land users in the floodplain in outgrowing.

with Maragra had begun within the last five years (since 2018), while 71 (49.7 percent) said it had begun more than five years ago.

Figure 5: CATI Outgrowing Contract Start Dates by Year at Follow-On



While the survey data suggests an association between the Pilot and new outgrowing participation, it also reinforces the qualitative findings that most of the Pilot beneficiaries who obtained outgrowing contracts were not asked to provide their land certificate to obtain their contract. **Only 16 percent (N=14) of 87 outgrowers in the CATI survey sample at follow-on who clearly began their contracts during or after the Pilot said they were asked to provide their land certificate, although this is still a substantial increase over 2018 endline.** Instead, a government-issued ID, community declaration, NUIT, or bank account statement were more commonly used in the outgrowing contracting process.

Among the 165 respondents at follow-on who had an outgrowing contract and could recall what type of documentation they needed to provide to obtain the contract, respondents said they were asked to provide any of the following document types to obtain their outgrowing contract:¹⁹ a government-issued identification card or birth certificate (82.4 percent, N=136), the Hluvukani-issued certificate of DUAT rights (12.1 percent, N=20), a DUAT title from government (3.0 percent, N=5), a community-ordained certification or neighborhood declaration (37.6 percent, N=62), a NUIT (Unique Tax Identification Number) (N=40, 24.2 percent), or a Bank Account statement (N=28, 17.0 percent).

Respondents were also asked to what extent they thought the cooperative-issued land certificate helped them in any way to obtain an outgrowing contract. **Among 152 outgrowers to whom the question applied, 57 percent (N=87) thought the certificate had helped them in some way to obtain their contract** (Figure 6), suggesting that certificate holders saw some broader utility of the certificate

¹⁹ Multiple documents types per respondent were possible, so percentages do not total to 100.

in promoting their engagement in outgrowing even if they did not need to provide the document directly as part of the contracting process.

Figure 6: Extent to which Cooperative-Issued Certificates Helped Beneficiaries Obtain Outgrower Contracts (Responses to the question, “To what extent do you think the cooperative-issued land certificate helped you in any way to obtain an outgrowing contract?”)

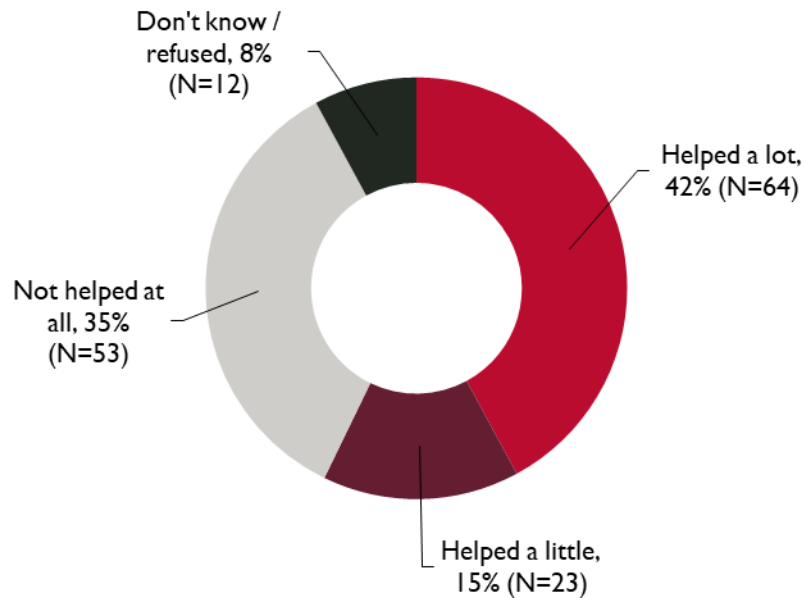


Figure Note: Among 152 CATI survey respondents to whom the question applied.

PILOT ACHIEVEMENTS ON LAND CERTIFICATE ADMINISTRATION VIA HLUVUKANI COOPERATIVE BENEFICIARY PERCEPTIONS AND ENGAGEMENT WITH HLUVUKANI REGARDING LAND CERTIFICATES

- What are participant perceptions of and engagement with Cooperativa Hluvukani Varime with respect to certificate distribution and administration? Other issues more generally?
- Do participants know how to make updates to their certificates, if they would like to, and who to contact?
- What is the current demand for making changes to certificates, and how are certificate updates being accomplished? What types of changes would certificate holders like to make, if at all (for example, related to land holder death, land transfers, parcel subdivision, boundary changes, etc)?
- If participants are not making updates to their certificates, what are the reasons why?

The qualitative data at follow-on suggest that Pilot beneficiaries have very little engagement with Hluvukani Cooperative on land issues, their certificates of DUAT rights or administrative aspects of the certificates. Participants across most of the GDs said they had not interacted with Hluvukani since the Pilot activities had finished, and this was fine with them because they had not encountered a situation where they felt they needed support from Hluvukani. If farmers engage with Hluvukani regularly regarding other issues, this did not come through in the GDs at follow-on. In many GDs, the discussion indicated that farmers from the different farmer associations do not commonly interact with Hluvukani.

The demand for making changes to certificates was also very low across the GDs conducted at follow-on. Immediate interest in this was only mentioned by a single participant across any of the 16 GDs that were held. The main reason GD participants gave for why they were not interested in making updates or changes to their certificates was that they had the opportunity to make corrections during the Pilot land mapping and registration process. The impression is that Pilot beneficiaries may view the certificate as a static document reflecting their situation at the time of the Pilot activities. Across all of the GDs held, only one participant mentioned plans to potentially update their certificate, in that case to reflect an anticipated transfer of the land to her son, as illustrated by the quote below.

“I am planning to put my certificate in the name of my son next year, because I am having an eye problem and probably will need to stop working, and I will go there to the cooperative to get help with the certificate update.” – GD participant, Phase I block (women’s group)

Participants from two GDs at follow-on said they would go to Hluvukani if they needed to make any changes to their certificates, while in four additional GDs participants said they would contact Hluvukani or Maragra. In these GDs, participants said they knew how to contact or obtain the necessary contacts from these organizations as needed. In several GDs, participants did not seem to associate Hluvukani directly with administration of the land certificates, instead saying that they would contact Maragra or the Pilot project in the event they wanted to make any changes or updates to their certificates.

These qualitative results were corroborated by the CATI survey data, which reinforced that many Pilot beneficiaries are not currently interested in making changes to their certificates nor aware of the appropriate entity to contact in the event they did. Among the 485 certificate holders in the survey sample, 96.7 percent (N=469) said they have not wanted to make any changes or update their certificates since they received the certificate. Among the 13 people (2.7 percent of certificate holders) who did want to update their certificates, 3 wanted to change the primary title holder, 3 wanted to add family members to the certificate, 6 wanted to expand the land boundaries indicated on the certificate, and 1 respondent said they wanted a DUAT title instead of the certificate.

Survey respondents were also asked who they would contact if they did want to make any changes to their certificates. Among the 485 certificate holders in the sample, 59.2 percent (N=287) said they did not know who to contact. Only 12.8 percent (N=62) said they would contact Hluvukani. A similar proportion (11.6 percent, N=56) said they would contact their community leadership, 7.8 percent (N=38) said they would contact their municipality government and 6.6 percent (N=32) said they would contact another farmer association or cooperative besides Hluvukani. A small number of respondents said they would contact Maragra (1.6 percent; N=8) or the USAID project (0.4 percent; N=2).

BENEFICIARY PERCEPTIONS OF DIFFERENCES BETWEEN THE GOVERNMENT-ISSUED DUAT TITLE AND THE COOPERATIVE-ISSUED CERTIFICATE

The Pilot initially planned to provide a subset of Pilot beneficiaries with a government-issued DUAT title in addition to the cooperative-issued certificate, and so previous rounds of this evaluation had sought to obtain learning on whether beneficiaries perceived a difference between the two documents and the reasons why. Although the government-issued DUATs ultimately were not provided to Pilot beneficiaries²⁰, the evaluation at follow-on retained some coverage on this issue because it was clear at

²⁰ During Phase I, the Pilot submitted DUAT title applications to Government of Mozambique (GoM) on behalf of Phase I beneficiaries, although the 2018 endline evaluation found that beneficiaries were largely unaware of this. By Pilot end, none of these applications had been processed

2018 endline that many Pilot beneficiaries were confused about these two documents. Several appeared to mistakenly believe the cooperative-issued certificate was a government-issued DUAT title.

At follow-on, qualitative findings suggested that **Pilot beneficiaries had a stronger understanding of the similarities and differences between the two documents than at endline**. Importantly, most of the GD participants perceived the cooperative-issued certificate to serve a similar purpose as the government-issued DUAT in terms of enabling them to prove their customary land rights.

Participants from several GDs at follow-on saw no differences between the two documents, while in 7 GDs (5 with women, 1 with men and 1 mixed group) participants could not say because they had never seen the government DUAT or were unsure for other reasons. In GDs where participants said they did see a difference between the two documents, they focused on issues like cost, formality, and difficulty to obtain, noting that the government-issued DUAT required a fee, was seen as more formal, and was far more difficult and time-consuming to obtain. In some GDs, respondents noted that the information contained in the two documents is largely similar.

“They have no difference, the look is the same, they have the same information. They are different in terms of colors and type of paper.” – GD participant, Phase I block (women’s group)

“Both are of equal importance. But the government certificate is very difficult to have, and this from the project was easier than we thought it would be to receive.” – GD participant, Phase I block (women’s group)

“... [the certificate] has the same data as the formal DUAT, the certificate is a safe and credible document, it shows that the person did not steal anyone’s land.” – GD participant, Phase I block (men’s group)

“We also know that the government-issued [DUAT] is recognized by government but we don’t see any problem with the [cooperative-issued] certificate as it holds the very same information related to our land. The most important thing is to have the land registered.” – male GD participant, Phase I block (mixed gender group)

Moreover, participants from several GDs explained they felt it was almost impossible for farmers like them to obtain a government-issued DUAT title, and so they were happy with the cooperative-issued certificate because it served a similar purpose as the government-issued document:

“Getting the DUAT from the government is almost impossible for us. We don’t even know where to start.” – male GD participant, Phase I block (men’s group)

“Nobody knows how to get the DUAT here, and it would also require a lot of money, which we don’t have.” – male GD participant, Phase I block (men’s group)

“We don’t even know what the formal DUAT looks like. We never saw it, or where to go to have it.” – female GD participant, Phase I block (women’s group)

The CATI survey data provided additional reinforcement of these qualitative themes and additional insights into the potential differences respondents saw between the government-issued

by GoM, and whether and the timeline under which they would potentially be issued in future was unclear. (For additional details, see the [2019 endline evaluation report](#)).

DUAT title and the land certificate issued by Hluvukani. Although 27.7 percent (N=148) of respondents said they did not see any difference between the two documents, 63.9 percent (N=341) were not sure, while 8.2 percent (N=44) said they did see a difference between the two. For the minority of respondents who saw the documents as different or not, the reasons they gave suggest these individuals largely understood that the intent of the two documents is similar while the government-issued DUAT title is more costly and time-consuming to obtain. However, a small proportion of respondents saw the DUAT title as more credible.

Among the 44 respondents who saw a difference between the two documents, the reasons were (in rank order): 29.5 percent (N=13) noted the government DUAT entails a cost to obtain while the Hluvukani-issued certificate is free, 25 percent (N=11) thought the government DUAT is more credible, and 11.4 percent highlighted that the government DUAT is more time consuming to obtain (N=5) or the two documents are issued by different entities (N=5).

Among the 148 respondents who saw no difference between the two documents, the reasons were (in rank order): 26.4 percent (N=39) said both documents contain the same information, 22.3 percent (N=33) could not say why, while 16.9 percent (N=25) highlighted that both documents have the same purpose, the same clauses (15.5 percent; N=23), or both documents belong to government (16.9 percent; N=25).

HLUVUKANI CAPACITY TO MANAGE AND ADMINISTER LAND CERTIFICATES

- *How has Hluvukani's capacity to manage and administer the land certificates changed? What challenges do they face and what type of support would they need to overcome those challenges? What is their current system for tracking certificates and keeping their registry up to date? Are there any key ways this could be improved to strengthen the overall sustainability of the system into the future?*

The findings at follow-on suggest that Hluvukani continues to have low capacity to manage and administer the cooperative-issued certificates, as was also the case at endline in 2018.

At follow-on, the cooperative does not have a system in place currently to manage the land registry or make updates, nor have Pilot implementers been able to provide the capacity building and training that would be required for them to carry out their envisioned role.

Klls with local implementing partner Terra Firma confirmed that Hluvukani is envisioned to eventually become akin to an agent administering the cadastral system produced by the Pilot, and the entity responsible for any updates to certificate and related issues over the longer term. But, Terra Firma was not able to provide the required capacity-building to Hluvukani on these responsibilities by the time of Pilot end because Pilot staff had not yet determined how that system would operate or the tools that would be used to accomplish it. Terra Firma staff indicated they felt Hluvukani does have some individuals who are capable of managing the envisioned work process but determining the types of support and capacity building that would most be needed to ensure the longer term sustainability of this envisioned role would depend on the complexity of the system that Terra Firma stated they still plan to eventually develop.

This was similar to the situation at 2018 endline, where it had been clear that the compressed timeline for Phase I of the Pilot had resulted in IPs inability to address Hluvukani capacity to manage the cadastral system by the conclusion of that Phase. These steps that are of paramount importance for longer-term sustainability of the system appear to have been also remained out of reach by the end of Phase II. In Klls, Terra Firma staff indicated they were committed to providing this support eventually, irrespective

of future USAID funding for the process, although the hurdles that had prevented local partners from developing the intended system in the years that had passed between Pilot conclusion and follow-on data collection for the evaluation were not clear.

KILs with Hluvukani and association leaders indicated that Hluvukani distributed the remaining certificates to Pilot participants within their respective blocks who were unable to retrieve their certificates within the month after the completion of the Pilot²¹. However, all of the farmer association presidents and community leaders interviewed at follow-on mentioned that their associations have not continued interacting with Hluvukani on matters relating to the certificates, upon completion of the project. One member stated that at this stage, now that the certificates have been administered and the Pilot is over, Hluvukani is not expected to follow-up further regarding the certificates. Interviews with two representatives in Hluvukani leadership also suggested that Hluvukani may largely feel it is no longer responsible to Pilot participants on issues relating to the certificates, as the cooperative does not have the means to provide follow-up assistance without the support of the Pilot.

OTHER CHANGES IN HLUVUKANI CAPACITY AS AN UMBRELLA ORGANIZATION FOR LOCAL FARMER ASSOCIATIONS

- *How has their role as an umbrella organization for local farmer associations changed as a result of the pilot? What challenges do they face and what type of support would be needed to overcome those challenges?*

Other support that Hluvukani provides to farmer association members, mentioned across some of the GDs at follow-on, includes explanations and assistance with farming techniques, weather, or communicating when a particular campaign will begin. However, **the qualitative data provides little indication that Hluvukani's role as an umbrella organization for the several local farmer associations with land in the floodplain blocks has changed as a result of the Pilot.** Hluvukani does continue to be a resource for farmers during land disputes, though KILs with farmer association leaders indicated there may be some types of disputes that they are less equipped to mediate.

One president of a farmer association mentioned that while they do not communicate with Hluvukani regarding the certificates anymore, their association still interacts with them on matters related to sugarcane outgrowing with Maragra. However, given that Hluvukani's office is presently located within Maragra's compound, this may also limit the possibility for residents who may want to interact with the cooperative if they do not otherwise have outgrower contracts with Maragra.

CONCLUSIONS

EQI focuses on how the Pilot activities affected beneficiary perception of and engagement with Maragra via sugarcane outgrowing contracts, thus addressing two of the overarching objectives in the Pilot's theory of change regarding an improved relationship between land-based investor firms such as Maragra and nearby land users as a result of the AF-guided Pilot activities.

At baseline, most of the GD participants were not engaged in outgrowing and reported virtually no engagement with Maragra. They highlighted several issues that contributed to their reluctance to engage in outgrowing, including: a lack of information, aversion to risk, or having poor soil quality or an unresolved dispute on their land that made them ineligible to obtain an outgrowing contract. Few

²¹ However, Hluvukani leaders also noted that some farmers "were never present at [certificate] distribution days" and acknowledged that the cooperative still has certificates at their office which have not been claimed.

respondents perceived a link between the cooperative-issued land documentation and the ability to engage with Maragra as an outgrower, but they were aware of other forms of documentation such as national identification cards that some farmers in the floodplain zones had used to obtain outgrowing contracts.

At endline in 2018, farmer participation in outgrowing schemes was still uncommon and the use of the cooperative-issued land certificates to obtain outgrowing contracts was very limited (only seven of the CATI survey respondents at endline had used the document by that time to obtain an outgrowing contract), although farmers' engagement in outgrowing during the Pilot years had increased substantially compared to prior years. Community participation in the Pilot activities also appeared to have increased awareness of the requirements for outgrowing among farmers in Pilot zones where respondents were previously not interested in, aware of, or able to access outgrowing contracts. Moreover, the cooperative-issued certificates were perceived as legitimate documentation of land rights and a potential route to obtain outgrowing contracts in future. Pilot beneficiaries believed the document could potentially facilitate engagement with Maragra in future.

By 2022 follow-on, evaluation findings suggest the Pilot did lead to an increase in beneficiaries' engagement in sugarcane outgrowing, although the scale of this appears to be relatively small. The follow-on does not suggest that Pilot activities changed beneficiaries' perceptions of Maragra, and many beneficiaries remained highly cautious of engaging in sugarcane outgrowing, for reasons unrelated to land tenure security or land documentation (discussed in more detail in EQ3).

Still, at follow-on, more than one-third of the CATI survey respondents reported that they were growing sugarcane for Maragra – a significant increase over endline that also reflects an uptick in new outgrowing contracts during the Pilot interventions years – and twelve percent had used the cooperative-issued certificate as part of the outgrower contracting process. Although a large proportion of beneficiaries viewed the certificate to have helped them in some way with respect to outgrowing, it appears that Maragra did not commonly ask prospective outgrowers for their cooperative-issued certificates as part of this contracting process, which may be a key reason why a greater proportion of beneficiaries likely did not report using the document directly in the contracting.

The follow-on results provide evidence that the Pilot did enable greater participation in sugarcane outgrowing to some extent, although the increase is relatively small and appears to be limited mostly to land users who may already have had the requisite capacity to engage in outgrowing but faced some hurdles in obtaining the required documentation for contracting with Maragra. The certificates thus helped to reduce a documentation barrier to outgrowing, but many land holders in the Pilot zones continue to face many other barriers to outgrowing that are unrelated to the Pilot activities. The overarching conclusion for EQ1 at endline was that more time would be needed for a change to potentially take place with respect to linkages between land certification, beneficiaries' engagement in sugarcane outgrowing and their perceptions of Maragra. At follow-on, some four years after Pilot activities had concluded, evaluation findings indicate that the Pilot's land certification activities did indeed appear to contribute to a greater number of beneficiaries engaging in sugarcane outgrowing, although the effect may have been limited primarily to those beneficiaries who were otherwise already well-situated for outgrowing and for whom the documentation requirement served as one of the last hurdles to overcome. There is also some anecdotal evidence at follow-on that the Pilot's certification activities may have motivated at least some farmers to allocate more of their land to sugarcane outgrowing (see

EQ2), though again the effect appears to be relatively small.

One key concern raised at endline and further highlighted at follow-on is regarding the persisting capacity gaps within Hluvukani cooperative related to managing the Pilot cadastral system and related responsibility regarding the cooperative-issued certificates. This poses a concern for the longer-term sustainability of the Pilot's achievements. If beneficiaries are unable to obtain assistance if and when a need to do so arises, it could weaken beneficiaries' confidence in or the utility of the document over time. The Pilot was notable for its well-placed intention to establish and strengthen a locally-led effort via Hluvukani Cooperative to oversee and administer land certification processes and maintain a local land administration system into the future. However, the capacity for Hluvukani to do this in practice appears to have remained prohibitively low.

For such a system to work in a future effort, it appears that substantially more time and resources would need to be devoted to this both during activity implementation and also likely to some degree during a post-implementation support period as well. Given that several years have passed since the conclusion of Phase II of the Pilot without apparent resolution or forward movement on this issue, completing this component of the envisioned process should be a key priority for local partners at this stage. Or, if ultimately deemed infeasible, then to focus on identifying alternative solutions that can ensure Pilot beneficiaries documented land rights and associated cadastral data remain protected and appropriately managed over the longer term.

EQ2: TO WHAT DEGREE HAVE COMMUNITY-LEVEL OBJECTIVES OF THE PILOT BEEN ACHIEVED, AND WHAT EXPLAINS SUCCESSES, FAILURES, OR UNANTICIPATED EFFECTS?

FINDINGS

Key Findings Summary for EQ2 at Follow-on

- **The Pilot achieved strong and sustained improvement in beneficiaries' knowledge of their land rights and perceived tenure security as a result of awareness raising, participatory land mapping and issuance of the land certificate.** Beneficiaries expressed strong confidence in their ability to avoid or resolve land disputes and threats of land dispossession as a result of having the cooperative-issued certificates, because the certificates are recognized by authorities and provide proof of the holders' rights to land. Women expressed a similar level of tenure security as men. Among the minority of respondents who expressed tenure insecurity at follow-on, the most common source of concern was that government might seize their land against their will despite their possession of the cooperative-issued certificate.
- **The cooperative-issued certificates have strengthened beneficiaries' confidence in dispute avoidance and mitigation, by providing legal proof of their land rights.** The main tangible benefit that beneficiaries expressed was the certificate itself and tenure security derived from it. Beneficiaries' confidence in the cooperative-issued certificate appeared to be as strong or stronger than at 2018 endline, indicating that confidence in the document has been sustained or grown over the years since the Pilot activities concluded. At follow-on, many beneficiaries felt there was no type of land dispute the document could not help to resolve. Land disputes are still reported by certificate holders, but they are uncommon and many appear to be resolved fairly quickly.

- **Beneficiary confusion at endline regarding the difference between government-issued DUATs and cooperative-issued certificates has dissipated by follow-on due to additional sensitization on this.** At endline, many respondents did not differentiate between the Pilot-issued certificate and government-issued DUAT titles, which had potential implications for sustained tenure security gains and the perceived validity of the certificates over time. At follow-on, beneficiaries largely understood the similarities and differences between the two documents.
- **Beneficiaries are unaware of a grievance mechanism for land issues.** By follow-on, no evaluation participants had sought assistance from Maragra or Hluvukani on land-related issues, and most of the participants were not aware of a process to do so. Instead, many said they would be more comfortable bringing land issues to their farmer association leaders or another local leader.
- **The Pilot ultimately was unable to address some of the communications, logistics and related implementation challenges that had prevented some interested farmers in the Pilot zones from having their land mapped and obtaining a cooperative-issued certificate. Contributing factors included the decentralized land and geographic context of the Pilot zone, communication and capacity challenges, persisting drainage issues in some areas of the floodplain that rendered areas inaccessible for long periods of time, and the fairly aggressive timeline for the Pilot.** Similar to endline, at follow-on there were several GD participants from Phase I or Phase II blocks who were not able to have their land mapped due to flooding during the mapping period, or had their land mapped but did not receive a certificate and were not sure why or how to obtain assistance. Context factors such as the decentralized land user and geographic context in the floodplain, the challenging communications context largely dependent on farmer association leaders and capacity at Hluvukani cooperative, and persisting drainage issues in some areas of the floodplain that appear to render some farmers more vulnerable to prolonged flooding likely all contributed to this, as did the fairly aggressive timeline for the Pilot.

KNOWLEDGE OF LAND RIGHTS AND TRANSPARENCY ON LAND ACCESS AND ALLOCATION

- *In what ways has implementation of the Pilot activities affected land user knowledge of land rights and perceptions of transparency with respect to land access, allocation, and confirmation of land rights, in the Pilot zone?*

The qualitative data at follow-on overwhelmingly suggests that **Pilot beneficiaries feel the Pilot substantively improved their knowledge on land rights issues and the importance of having documentation of their land rights** (stated in 16 of 16 GDs). Other knowledge gains as a result of the Pilot that participants mentioned across the GDs included improved knowledge of the specific size of their parcels and awareness on the importance and benefits of registering one's land. GD participants did not highlight transparency over land access or allocation as a key benefit of the Pilot activities, but they did strongly state a perception that the cooperative-issued certificates would help to ensure no one could take their land from them in future (see next section).

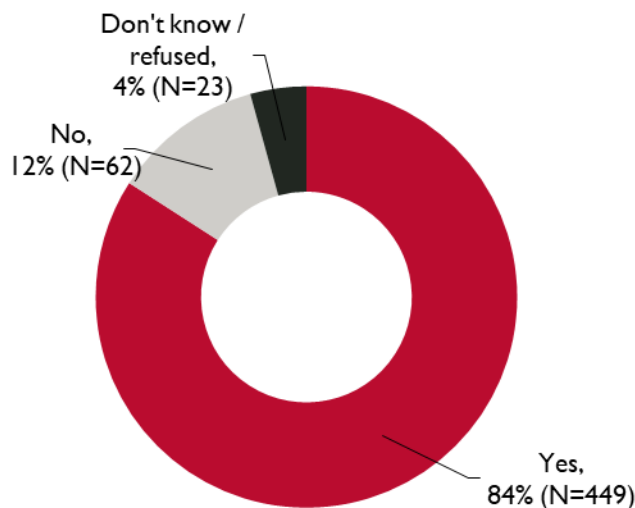
“The people who received the certificates got to know that they have land rights, and from then on there is no one who can come to steal land from us.” – GD participant, Phase I block (men's group)

“Our knowledge has improved a lot, not everyone around here knew of the importance of having ownership documents for their lands. Now we are safe and we can prove that the lands are ours. No one can come and take our lands from us.” – female GD participant, Phase I block (mixed gender group)

“I, for example, did not know the real measurements of my land, but now I know other things [as well, such as] that I have rights here on my land.” – female GD participant, Phase I block (mixed gender group)

This was also strongly reflected in the CATI sample, where **84.1 percent of survey respondents (N=449)** reported they thought the Pilot activities had helped to improve their knowledge on land rights (no significant differences by gender) (Figure, 7).

Figure 7: Pilot Impacts on Beneficiary Knowledge of Land Rights (Responses to the question, “Did any of the Pilot activities help to improve your knowledge on land rights?”)



PERCEIVED TENURE SECURITY AND LAND DISPUTES

- How have the Pilot activities (sensitization, land mapping and provisioning of DUAT titles or certificates of proof of DUAT rights) affected land users perceptions of tenure security, vulnerability to land conflict or disputes, and risk of land expropriation in the Pilot zone?
- In what ways has the land mapping and documentation process, and receipt of certificates, specifically affected participants' views on: land-grabbing by internal and community outsiders, land-related corruption by local officials, and other sources of land tenure insecurity they may face?

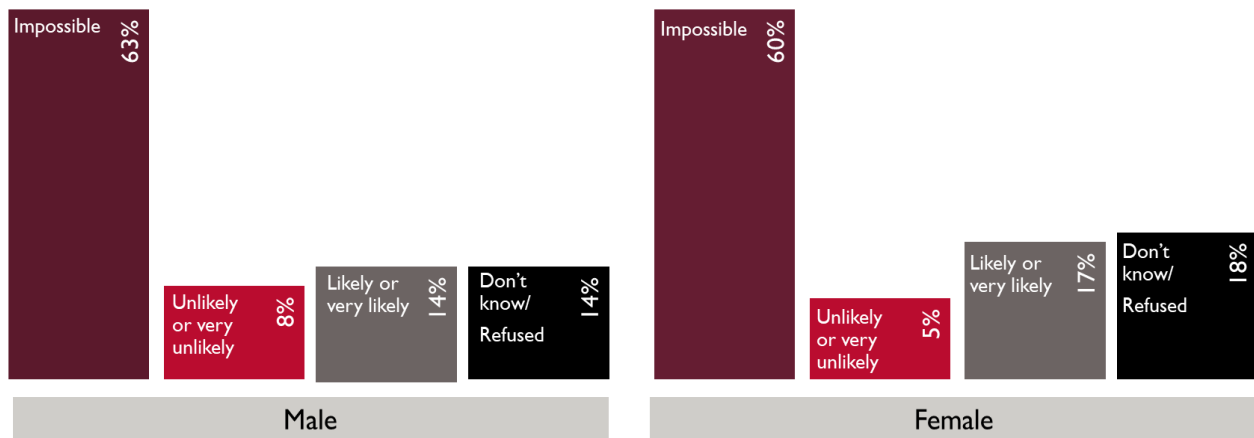
At follow-on, there is strong evidence across the qualitative and CATI survey data that the Pilot led to stronger perceived tenure security and reduced risk of land loss or vulnerability to land disputes among Pilot beneficiaries. GD participants expressed improved tenure security over their land in the floodplain and linked this to the cooperative-issued certificates. Participants across all 16 GDs at follow-on felt the cooperative-issued certificates were sufficient to defend their land rights from most or all types of threats they might face to their land. Confidence in the certificates appeared to be as strong or stronger than at 2018 endline, suggesting beneficiaries' confidence in the document has been sustained or grown over the years since the Pilot activities concluded.

“... We feel safe with our lands [now] because we have documents that give us legal rights to our lands.”
– GD participant, Phase I block (women's group)

“Now if someone tries to take over my lands I can show them the certificate that proves that the land is mine, that will drive them away immediately, and the people around here know that those lands are registered in our names.” – GD participant, Phase I block (women’s group)

To measure perceived tenure security quantitatively, CATI survey respondents were asked how likely they think it is that they could lose the right to use land they have in the floodplain area against their will, within the next five years. At follow-on, the majority of respondents, 61.2 percent (N=327), thought this would be impossible or could never happen, while another 6.7 percent (N=36) thought it would be unlikely or very unlikely. 15.6 percent (N=155) thought it would be likely or very likely, while 13.9 percent (N=74) said they did not know. A small number of respondents, 2.6 percent (N=14) refused to answer this question. There were no significant differences in the distribution of responses by gender, suggesting few material differences in perceived tenure security via this indicator for male and female survey respondents (Figure 8).

Figure 8: Perceived Tenure Security (Response by gender to the question, “How likely do you think it is that you could lose the right to use land you have in the floodplain against your will, within next 5 years?”)



Overall, these responses at follow-on suggest substantial gains on tenure security since the 2018 endline, where only 26 percent of respondents (N=130) thought that losing land against their will in the next five years was impossible or could never happen. The reasons respondents provided for their perceived tenure security status were similar for 2018 endline and 2022 follow-on. Tenure secure respondents highlighted the cooperative-issued land certificate as the main reason they felt they would not lose land against their will, while tenure insecure respondents focused on concerns about land loss from government, companies, or other outside groups.

Among the two-thirds of respondents who expressed tenure security, the overwhelming reason they provided in short open-ended responses was that they have documentation of their claim to the land (N=258; 71 percent of tenure secure responses), followed by simply not being worried (N=125; 34 percent of tenure secure responses). Among the 44 'other' response reasons provided, 17 said it was because the land was their inheritance and belongs to them, 8 attributed it to the land being their source of sustenance, 5 said it was because they had the government's support in protecting their land rights, and 4 provided other random responses (Figure 9).²²

Figure 9: Reasons for Perceived Land Tenure Security

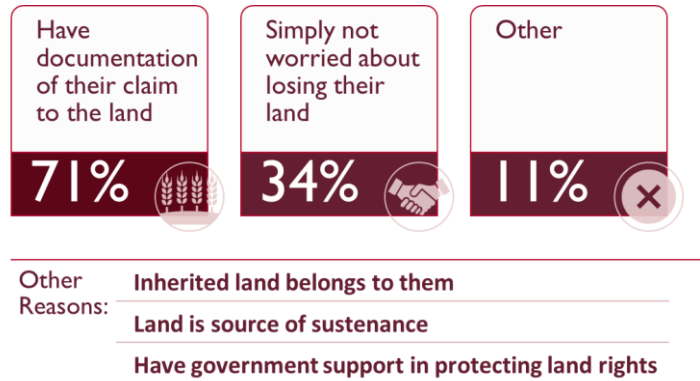


Figure note: Among 363 respondents who expressed tenure security.

Among the 16 percent of respondents who felt tenure insecure, the reasons they gave focused on concerns about land loss from government, companies or other outside groups (Figure 10): Concern that government may seize the land (N=53), concern that other people or groups may try to seize the land (N=14), nonspecific land conflict (N=11), a general feeling that anything can happen (N=10), companies may try to seize the land (N=9), issues with local authorities or officials (N=7), difficulty reclaiming land in the event of having to leave due to flooding or another type of natural disaster (N=6), problems with their farmer association (N=4), a lack of money or other resources needed to maintain the land (N=4), or missing or inaccurate land records (N=3).

Figure 10: Reasons for Perceived Land Tenure Insecurity

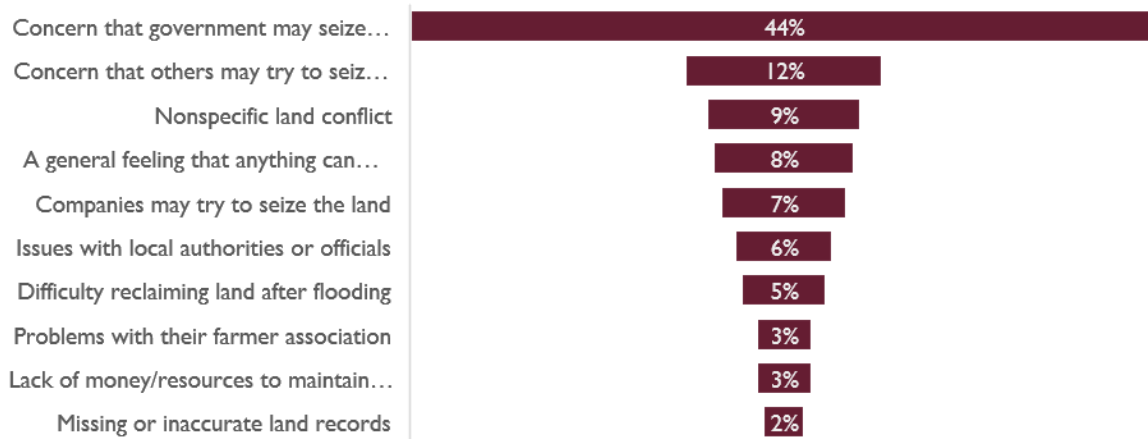


Figure note: Among 121 respondents who expressed tenure insecurity.

GD participants did not highlight any particular types of land disputes or challenges that they felt the cooperative-issued certificates could not help with. Instead, they expressed confidence the document

²² Totals do not sum to 100 because respondents could provide multiple reasons.

could help with any challenge they might face, including land grabbing by internal or community outsiders, corruption by local officials, or other sources of insecurity such as intrafamilial land disputes.

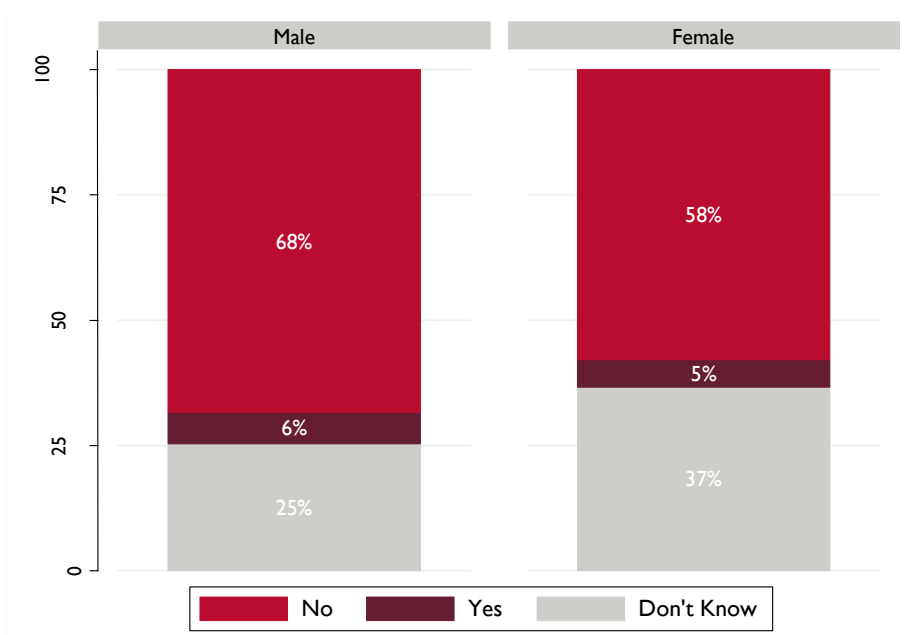
Participants attributed this primarily to the certificate itself, which they felt would be recognized by authorities as proof the land was theirs. This is notable at follow-on, since the 2018 endline results indicated that many Pilot beneficiaries were still uncertain about whether the certificate would protect them against land grabbing facilitated by local authorities, a phenomenon that had been present in the Pilot area at baseline.

“We don’t have much knowledge about land rights but we believe that these [certificates] are true and can protect us in any case.” – GD participant, Phase I block (women’s group)

“...as an example, in places where people do not have certificates, the land is being sold without knowledge of the [land owners]. Even here in our area some fields have already been sold without the owners knowing.” – GD participant, Phase I block (men’s group)

The CATI survey data also indicated a positive trend on this at follow-on, as 62.6 percent (N=334) of survey respondents felt there was no type of land disputes or land-related challenges that the Hluvukani-issued certificate could not help with, while 32.7 percent (N=169) were not sure. Only 4.7 percent of respondents at follow-on thought there were some types of the land disputes the certificate could not help with, a substantial reduction compared to 24 percent of male and 32 percent of female survey respondents at 2018 endline. Though uncommon, the types of land concerns that respondents focused on in short open-ended answers at follow-on included, in rank order, disputes with: local officials (N=9), outside investors (whether Mozambican or foreign, N=9), over land inheritance (3 respondents), someone holding a formal DUAT title (N=2), or Mozambican government (N=1).

Figure 1 I: Responses by Gender to the Question, “Are there any types of land disputes or land loss risks that you think this certificate could not help with?”



CATI survey respondents' personal experience with a land dispute on any land they use in the floodplain blocks was fairly low at follow-on, with 12.6 percent (N=67) of respondents reporting they had personally experienced a land dispute in the Pilot zone. A substantial proportion of these began in 2021 or 2022 but appeared to be short-lived – respondents reported that half of such disputes (52.2 percent; N = 35) had already been resolved by the time of survey (Figure 12). Nearly all (N=60) of these 67 respondents had a cooperative-issued land certificate.

Figure 12: Number of Reported Disputes by Year and Gender

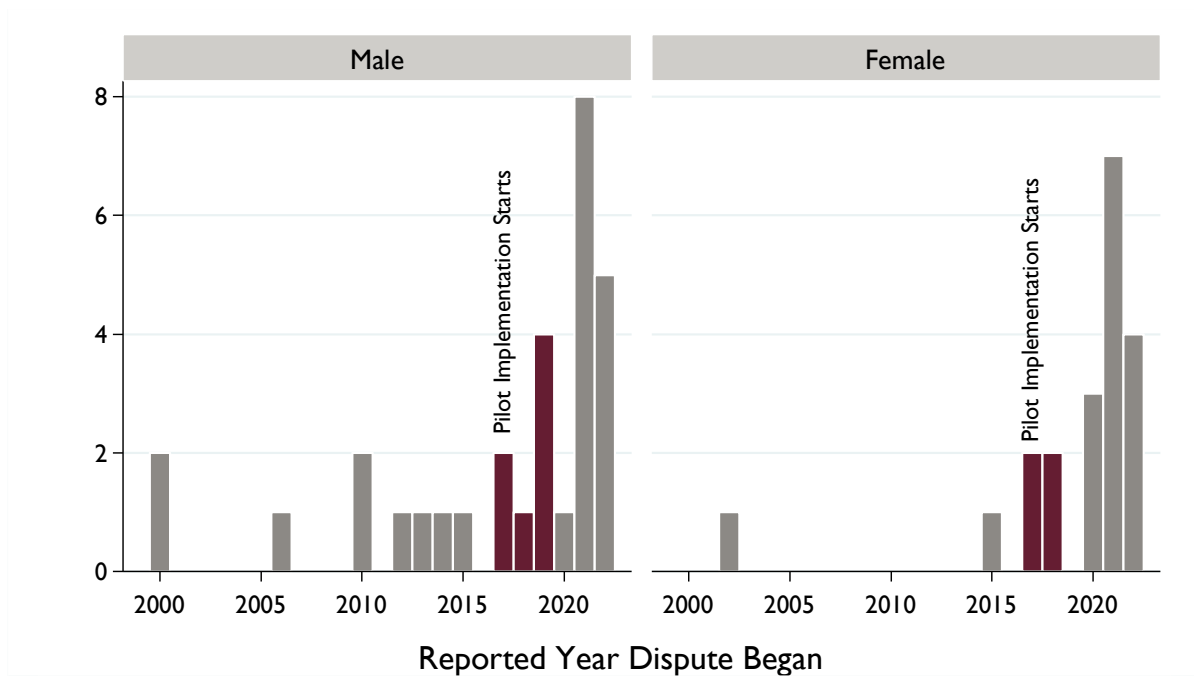
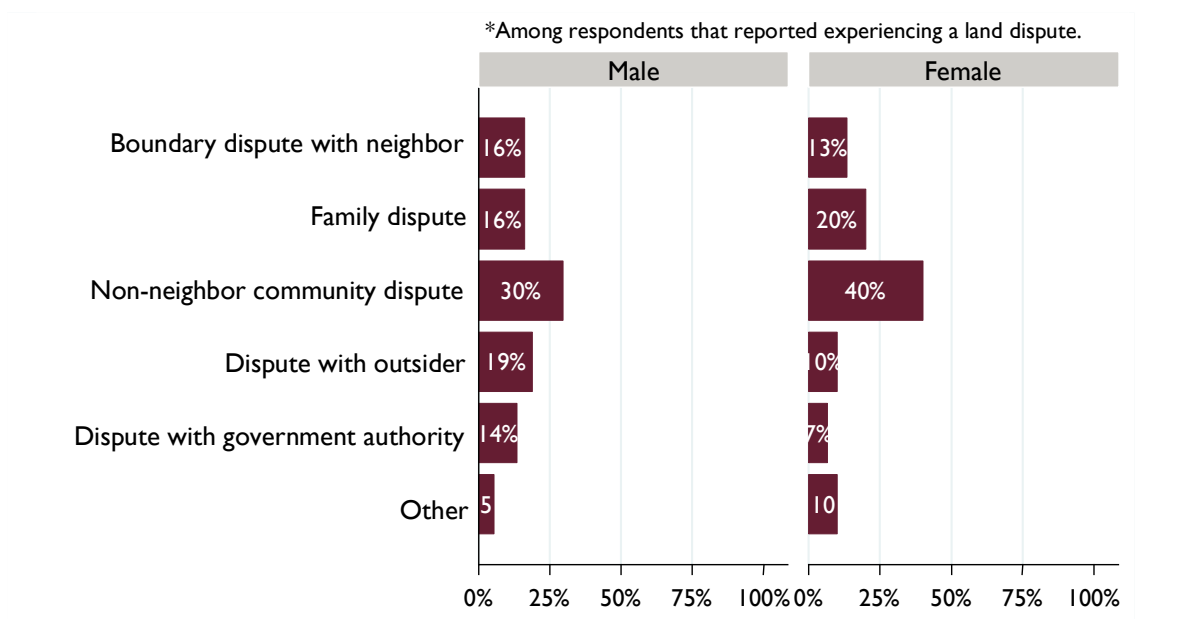


Figure 13. Reported Land Dispute Types by Gender



The types of disputes they described included those within families or communities, as well as with government authorities or community outsiders (Figure 13). The largest share were disputes with another community member (34.3 percent; N=23), followed by a land conflict with another member of their family (17.9 percent; N=12), a dispute with a stranger/outsider about rights to use the land (14.9 percent; N=10) and a dispute with the land owner of a neighboring parcel about the parcel boundaries (14.9 percent; N=10). 10.5 percent (N=7) had a dispute with a government authority over land and 7.5 percent (N=5) were listed as ‘other’. Among the 35 disputes that had already been resolved, respondents felt the presence of the Pilot had influenced the resolution of the dispute for 60 percent (N=21) of them. Overall, these findings suggest that land disputes are still experienced by certificate holders on an uncommon basis, though many appear to be resolved fairly quickly.

TENURE SECURITY AND FALLOWING

Similar to 2018 endline, at follow-on Pilot **beneficiaries did not equate their improved tenure security and possession of documented land rights with an ability to leave their land in the floodplain blocks unfarmed (fallow)**. In nearly all GDs at follow-on, participants said they would not feel comfortable leaving their land to rest for a long period of time, despite their improved tenure security and documented proof of their land rights.

In one GD held with women, participants explained they feared government could take their land in the such a situation, despite their possession of a cooperative-issued certificate of their DUAT rights to the land. Their concerns stemmed from a belief the land must be used productively in order for a land user to retain rights to it. Some GD participants noted that it would be uncommon for someone to want to leave their field unfarmed for a long period of time in any case, unless they were sick or could not farm or find a tenant to farm the land for some reason. In general, participants described high demand for farmland and a strong feeling that land left fallow for more than a few months would risk people encroaching onto it, even if the land owner had a certificate of their rights to the land.

“We can leave it [the land] for one or two months, but we cannot leave [land unfarmed] for a year – people can take it. If people notice an unfarmed space, they use it.” – GD participant, Phase I block (women’s group)

“Even with the certificates we cannot leave our land uncultivated. If we leave the land, people can take it. In two months, nothing may happen, but more than two years won't work.” – GD participant, Phase I (women’s group)

“It is said that despite having papers if the land is not used it can be taken away. It is necessary to make use of the land.” – GD participant, Phase I (women’s group)

BENEFITS OF COOPERATIVE-ISSUED LAND RIGHTS CERTIFICATES

- *How have participants tangibly benefitted from the cooperative-issued certificates, whether related to outgrowing, tenure security, broader livelihoods benefits, or otherwise? For those who may not have felt they have benefitted, what are the main reasons why?*
- *Have certificate holders experienced any changes in access to, demand for or cost to rent in or out land as a result of the Pilot activities (or any broader effects on informal land markets as a result of having a certificate or widespread possession of land certificates by land users in the Pilot zones)?*

The qualitative and quantitative data at follow-on suggests that the most widely-perceived benefit that beneficiaries have experienced to date as a result of the cooperative-issued certificates is improved tenure security, while some also mentioned greater confidence in their ability to pass land to their children or additional motivation to improve their production on these lands as result of having land documentation. **The main tangible benefit that GD participants expressed was the certificate itself, which they felt had led to them having improved tenure security over their farms in the floodplain areas.** This was mentioned in every GD conducted at follow-on, and several participants also noted that farmers in their situation typically have no hope of obtaining such a document via the government.

The evaluation does not find evidence that certificate holders experienced substantial changes in access to, demand for or the cost to rent land in or out as a result of the Pilot activities, nor is there an indication at follow-on of any broader effects on informal land markets in the floodplain blocks as a result of widespread possession of the cooperative-issued land certificates by land users in these zones.



PHOTO CREDIT: NINAR TAHA

A Pilot beneficiary displays her cooperative-issued land certificate.

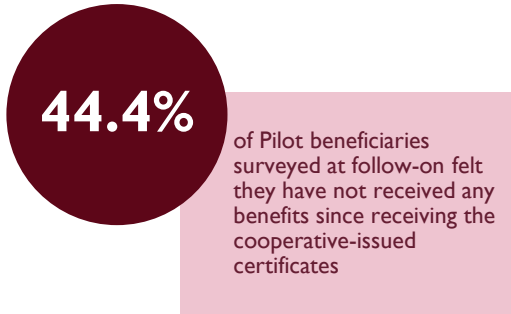
“The main benefit of having the [certificate] is that we feel safe and strong with our lands.” – female GD participant, GD I (mixed group)

“The benefit is that now I have the means to prove the land is mine. If I die, the lands will pass to my sons. That’s enough for us.” – female GD participant, Phase I block (women’s group)

“This document is the biggest benefit we had. Now, to make use of it just depends on our will to produce.” – male GD participant, Phase I block (mixed gender group)

“It’s a luxury for someone to have land with records in their name. And for that, we are grateful for this project.” – female GD participant, Phase I block (women’s group)

The CATI survey data across a broader sample of Pilot beneficiaries suggested that many beneficiaries felt they have not yet experienced a tangible benefit from their land documentation. CATI survey respondents were asked to provide a short open-ended response about the most important benefit they felt they had received as a result of obtaining the Hluvukani-issued land certificate, if at all. About half of the sample said they have received a clear benefit to having the cooperative-issued certificate, while approximately half of respondents felt they had received no benefits to date (44.4 percent; N=237), or either could not specify a benefit or refused to answer (8.4 percent; N=45).



Among the 47.2 percent (N=252) of respondents who did specify a benefit, 27.4 percent (N=69) said it was having more security over their lands, 27.0 percent (N=68) said it was receiving the DUAT itself, 21.3 percent (N=53) said it was having proof that their land is legal and theirs, while 10.3 percent said it was help getting an outgrowing contract (N=26) or not having any more land conflicts (N=25). 11 respondents (4.3 percent) provided various other responses (Figure 14).

Figure 14: Perceived Benefits of the Cooperative-issued Certificates of DUAT Rights

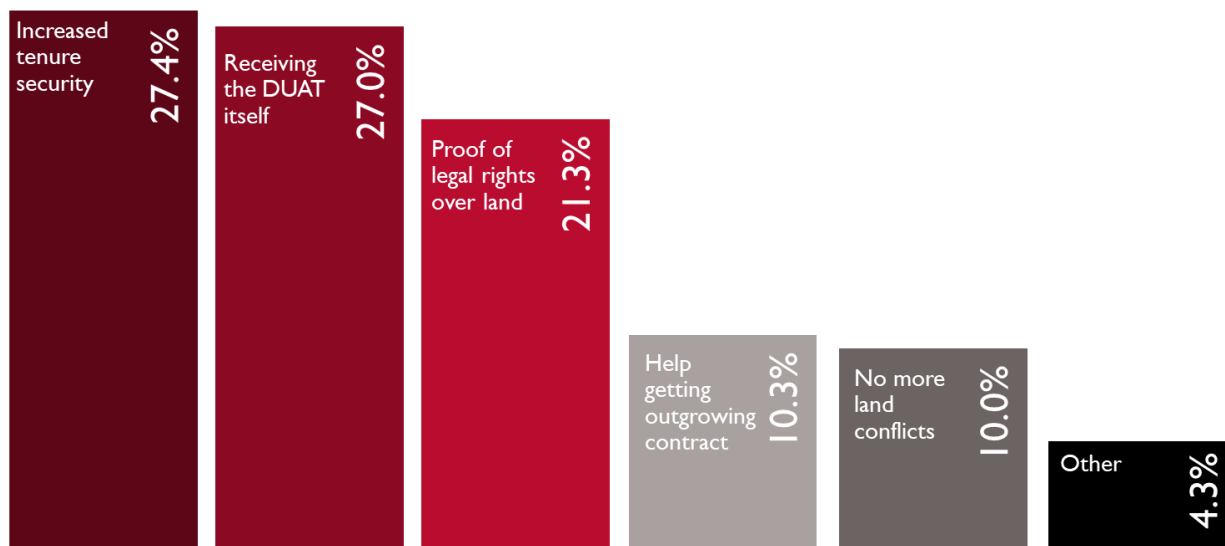


Figure note: Among 252 respondents who specified a benefit of the cooperative-issued certificate

Trends were similar on this across male and female survey respondents, although a higher proportion of female survey respondents said they had not received any benefits to date (50 percent of female respondents vs 38 percent of male respondents).

KNOWLEDGE AND USE OF GRIEVANCE MECHANISM FOR LAND ISSUES

- *To what extent are Pilot participants and other land users aware of and utilizing a grievance mechanism via Maragra to raise and obtain resolution on land and related complaints through the company? For those who have used or engaged in this process, what were the outcomes?*

Participants from nearly all of the GDs were unaware of a process to obtain assistance or resolution from Maragra on issues related to land in the floodplain blocks (14 of 16 GDs). However, participants from 2 GDs did say they would go to Maragra or Hluvukani for assistance. (2 GDs with women). By follow-on, no participants across any of the GDs said they had sought such support or assistance on any land related issues. Instead, some mentioned they would go their local farmer association or local leaders instead, whom they were more comfortable bringing such issues to.

“...when we have problems we solve them in the association. If we don't manage, we take them to the leaders of our area.” – GD participant, Phase I block (men’s group)

This was strongly corroborated by the CATI survey data, where only 9.6 percent (N=51) of survey respondents said they were aware of a process to obtain help from Maragra in case they have any issues

or complaints related to land. In Klls, three of the seven farmer association leaders said they knew someone at Maragra they could report grievances to, but none had needed to do so thus far. A Maragra liaison noted their role is primarily to help bring parties together for discussion and to encourage resolution:

“We are interested parties in seeing the process resolved. What we do is bring these people together, so that it can be resolved. But we can do little unfortunately, we only mediate, but the decision is always theirs. What we say is they must go and solve it, and only after that can they return to supply the cane to us, it is a decision that we cannot intervene, what we do is advise.” – Kll with a Maragra Liaison

CHALLENGES AND UNANTICIPATED EFFECTS

- *What Pilot or external factors negatively or positively influenced the ability for the Pilot activities to achieve intended results related to sensitization, mapping, provisioning of DUAT titles or certificates, land use and land-use opportunities, and perceptions of tenure security, vulnerability to land conflict/disputes, and land expropriation risk?*

The evaluation findings also highlight some external factors and those related to Pilot implementation that contributed to persisting challenges the Pilot faced in ensuring that everyone who wanted to participate and was eligible could have their land mapped and obtain a certificate for all of their eligible parcels. Similar to endline, at follow-on there were several GD participants from Phase I or Phase II blocks who were not able to have their land mapped due to flooding during the mapping period, or had their land mapped but did not receive a certificate and were not sure why or how to obtain assistance. Context factors such as the decentralized land user and geographic context in the floodplain areas, the challenging communications context largely dependent on farmer association leaders and capacity at Hluvukani cooperative, and persisting drainage issues in some areas of the floodplain that appear to render some farmers more vulnerable to prolonged flooding likely all contributed to this, as did the fairly aggressive timeline for the Pilot. The findings at follow-on indicate that these issues were experienced more commonly during Phase I, but there is also evidence that some land holders under Phase II experienced similar challenges to participate or obtain resolution from Pilot staff or extensionists on their issues.

Frequent flooding of some parcels in the Pilot blocks was another external factor that negatively influenced the Pilot’s ability to reach all interested potential beneficiaries and also farmer’s capacity to obtain economic opportunities via outgrowing or other land-based income generating activities. Although substantial infrastructure updates were made to the floodplain areas prior to the start of Pilot activities, by other donor-funded projects, to improve drainage after rains, flooding events appear to continue to significantly impacts many parcel holders in some of the floodplain blocks. At follow-on, some farmers highlighted significant flooding on their parcels during 2019-2021 and related cases where farmers had lost resource or crops due to flooding and poor drainage in the floodplain. As discussed in EQ I, flooding also significantly impacted some farmer’s ability to participate in land mapping and verification activities during the Pilot, ultimately affecting whether they were able to obtain a cooperative-issued certificated.

Klls with local implementing partner Terra Firma provided additional insights into how the compressed life span of the Pilot activities contributed to some of the Pilot’s challenges in meeting all of its intended objectives, given that awareness raising among potential beneficiaries, staff and beneficiary training on

the participatory workflow process itself, the substantive and technology-driven parcel delimitation and related work, and documentation generation, verification and distribution components typically must happen sequentially. Challenges that affect the timeline of any one of these components necessarily affects the ability for a given activity to meet its overall timeline, and challenges across multiple components necessarily compounds the issue.

While land formalization projects are often conceptualized to end once the land documents have been distributed back to beneficiaries, there may be a benefit to planning for a 6-month or year post-project support period explicitly from activity outset, for implementers to focus on providing the needed capacity building and support systems to local partners after the range of challenges and support needs are fully known (potentially also including, for example: legal literacy, gender training, association or organization management support, in addition to technological training on cadastral systems and related, noted by KIIs with IPs), while also allowing an opportunity for implementing staff to address any unresolved beneficiary issues or concerns. It may also be possible for local partners to conduct such efforts in parallel during the core implementation period, but this may be a particular challenge for short-duration activities and contexts where the envisioned local entity has little prior management or technological experience with their envisioned administrative responsibilities.

CONCLUSIONS

EQ2 focuses on the extent to which Pilot activities led to improvements in land users' knowledge of land rights, perceptions of tenure security and vulnerability to land disputes and land loss, and perceived transparency around land access and allocation in the Pilot zone. It also focused on beneficiaries' general perceptions of whether and how they have benefitted from the cooperative-issued certificates, and their awareness and utilization of a Pilot-facilitated grievance mechanism for land-related issues in the Pilot zone. The evaluation also notes any key context factors that beneficiaries may have highlighted that influenced the ability for Pilot activities to achieve intended results.

By 2018 endline, results suggested that Pilot activities around sensitization on land rights, land mapping, and provisioning of the cooperative-issued certificates had positively affected land users' perceptions of tenure security, vulnerability to land conflict or disputes, and risk of land expropriation in the Pilot zone in ways that were consistent with the theory of change. Many GD participants at endline indicated stronger tenure security over their parcels in the floodplain blocks due to their receipt of the cooperative-issued certificates. Pilot beneficiaries expressed confidence that the certificates would help them to prove the land is theirs in the event someone else tried to claim it. However, the Pilot encountered technical and communication challenges that affected some farmers' ability to participate in the Pilot by endline, for example as a result of gaps in land mapping due to flooding at the time of parcel mapping. Challenges that implementers faced by endline included an overly tight implementation timeframe, capacity challenges with Hluvukani cooperative over land registry administration, difficulties sharing data with Government of Mozambique systems, and insufficient follow-up with beneficiaries about the certificates or DUAT submissions to government on their behalf.

The 2022 follow-on findings suggest strong and sustained improvements to perceived tenure security over time for many Pilot beneficiaries, which they attributed to the cooperative-issued certificates. This represents an important community-level objective in the TOC that the Pilot has clearly met. There is also evidence that the Pilot improved beneficiaries' knowledge on land rights and the benefits of having land documentation. The most tangible benefit of the Pilot that beneficiaries cited was the certificate

itself and the stronger tenure security they obtained by having legal proof of their land use rights. Some beneficiaries also cited obtaining accurate knowledge of the size of their land parcel as an additional benefit of the Pilot. Although participants were unaware of a grievance mechanism for land issues via Maragra or Hluvukani at follow-on, many preferred to bring land issues to their trusted farmer association leaders or other local leaders instead. Land disputes were still experienced uncommonly by some Pilot beneficiaries in the years since the Pilot activities concluded, but they appeared to be relatively minor in nature and often resolved fairly quickly. At follow-on, many Pilot beneficiaries felt there was no type of land dispute that their cooperative-issued certificates could not help them to resolve. Beneficiaries' value of the cooperative-issued certificates was particularly high since, as many noted at follow-on, most farmers in their situation typically have no pathway to obtaining documentation of their land rights via government.

As was also noted at endline, low technical capacity within the local Hluvukani cooperative partner coupled with the decentralized floodplain structure and geography led to challenges in local data management processes during the Pilot. It is clear at follow-on that the Pilot ultimately was not able to fully resolve some of the broader context and communications challenges that had been highlighted at endline, particularly with respect to individuals who either were unable to have their land mapped or did so but never received a cooperative-issued certificate. A combination of floodplain and beneficiary context factors appear to contribute to this, together with communications challenges, data management capacity issues stemming in part from the well-intentioned reliance on a local cooperative partner with insufficient technical capacity and the aggressive timeline that Pilot implementers faced. As Pilot activities have now concluded, these challenges appear to continue to pose potential concerns for the sustainability of the Pilot's land registry over time and the ability for Pilot participants with unresolved issues to obtain resolution.

EQ3: HOW WELL DO THE PILOT ACTIVITIES MEET UNDERLYING CHALLENGES AND NEEDS OF COMMUNITIES WITH RESPECT TO PARTICIPATION IN OR PROXIMITY TO NEW OR EXISTING LAND-BASED INVESTMENT SCHEMES?

Key Findings for EQ3 at Follow-on

- **The Pilot activities effectively addressed two key underlying barriers to outgrowing: farmers' tenure security over their land and ability to provide documented proof of their land rights.** For Pilot beneficiaries that already had the capacity and sufficient land area to grow sugarcane profitably, the Pilot appears to have contributed to an increase in those who sought and obtained outgrower contracts with Maragra. Also, some farmers who already grew sugarcane prior to receiving their land certificates appear to have chosen to expand the area of land under sugarcane as a result of their greater sense of land security induced by the certificates, thus also increasing their income.
- **The Pilot was not designed to address many other substantial barriers to outgrowing that farmers face, including underlying technical and financial capacity, labor, information uncertainty and risk, and tradeoffs with their food production needs and reliance on regular income flows. These remain strong barriers to greater outgrower participation among Pilot beneficiaries.** Many farmers would likely need additional assistance beyond the cooperative-issued certificates to be interested in, effectively engage in or be positioned to profit from sugarcane outgrowing.
- **Given the nature of outgrowing constraints, the Pilot's land documentation inadvertently may have most helped those smallholders who were already relatively better-positioned with respect to outgrowing,** while farmers with very small landholdings and related constraints effectively remain unlikely to be able to benefit from outgrowing and its potential livelihood gains. Many GD participants discussed their inability to profit from sugarcane outgrowing given various constraints, while others affirmed that for those farmers with sufficient knowledge, skills and land, outgrowing can be very lucrative.
- **There is no evidence at follow-on that the certificates have unintentionally spurred widespread land aggregation,** although many farmers in the Pilot zones do already participate in outgrowing via a long-existing collective contract with their farmer association. Among the 184 respondents in the CATI survey sample who reported engaging in outgrowing, 16.9 percent (N=31) of them reported they were growing sugarcane as part of a collective outgrowing contract at the time of the survey.

FINDINGS

BENEFICIARY INTEREST AND CHALLENGES RELATED TO SUGARCANE OUTGROWING

- *In the context of the Maragra Pilot project, what are the primary reasons that land users do not participate in outgrower or other land-based investment opportunities with the estate? To what extent were Pilot activities able to address these barriers?*

At follow-on, participants from several GDs highlighted several broader constraints and barriers to engaging in sugarcane outgrowing, or profiting from it, that are unrelated to the Pilot's land rights and tenure security objectives (Figure 15). These other barriers are summarized in Table 3 below.

Table 3. Sugarcane Outgrowing Entry Barriers Cited by Pilot Beneficiaries.	Frequency (Number of GDs by gender)
<ul style="list-style-type: none"> • Inability to accommodate the annual revenue cycle and related risk and income uncertainty. Sugarcane is harvested annually and its growth cycle lasts the entire year. Farmers gain income from the crop only once per year, which is insufficient to meet farmer's cash flow and food needs and also entails a high level of risk since many events could occur throughout the year to compromise the harvest and hence their income. This issue is exacerbated by farmers' small landholdings and already precarious economic situations. Many farmers indicated they needed to allocate most of their land to subsistence food production, a portion of which they could reliably sell if needed throughout the year. 	6 GDs (3 M; 3 F)
<ul style="list-style-type: none"> • Individual parcels are too small to profitably grow sugarcane. Many GD participants cited their small parcel sizes as infeasible for growing sugarcane profitably, particularly given their need to also allocate some of their land to food crop production. 	6 GDs (2 M; 2 F; 2 mixed gender)
<ul style="list-style-type: none"> • Farmers have insufficient technical expertise and cannot afford the required material and financial inputs, which include various agricultural inputs like fertilizers and sprayers, paying farm laborers to maintain the fields, and irrigation effort. Farmers highlighted that it is not possible to engage in sugarcane production for Maragra without some level of technical and material support 	4 GDs (1 F; 3 mixed gender)
<ul style="list-style-type: none"> • Insufficient transparency or understanding of Maragra or donor-supported financing for outgrowing, fees and farmers' ultimate profit. Some participants shared experiences with a prior EU-funded outgrowing support project that provided technical and transport assistance and direct inputs to farmers to improve cane productivity, but also deducted a portion of farmers' revenue from their harvest to cover some of the costs of the assistance. Farmers did not know how much would be deducted or what it related to and ultimately obtained a smaller than anticipated profit. Farmers said their livelihoods had not improved and they were wary of engaging in a similar type of project in future. 	2 GDs (M)
<ul style="list-style-type: none"> • Lack of transport to bring the cane to Maragra, which contributes to post-harvest losses²³ and leaves farmers susceptible to having some of their harvest stolen while they wait for Maragra-organized transport 	1 GD (F)
<ul style="list-style-type: none"> • Lack of knowledge about the process to become an outgrower. 	1 GD (M)

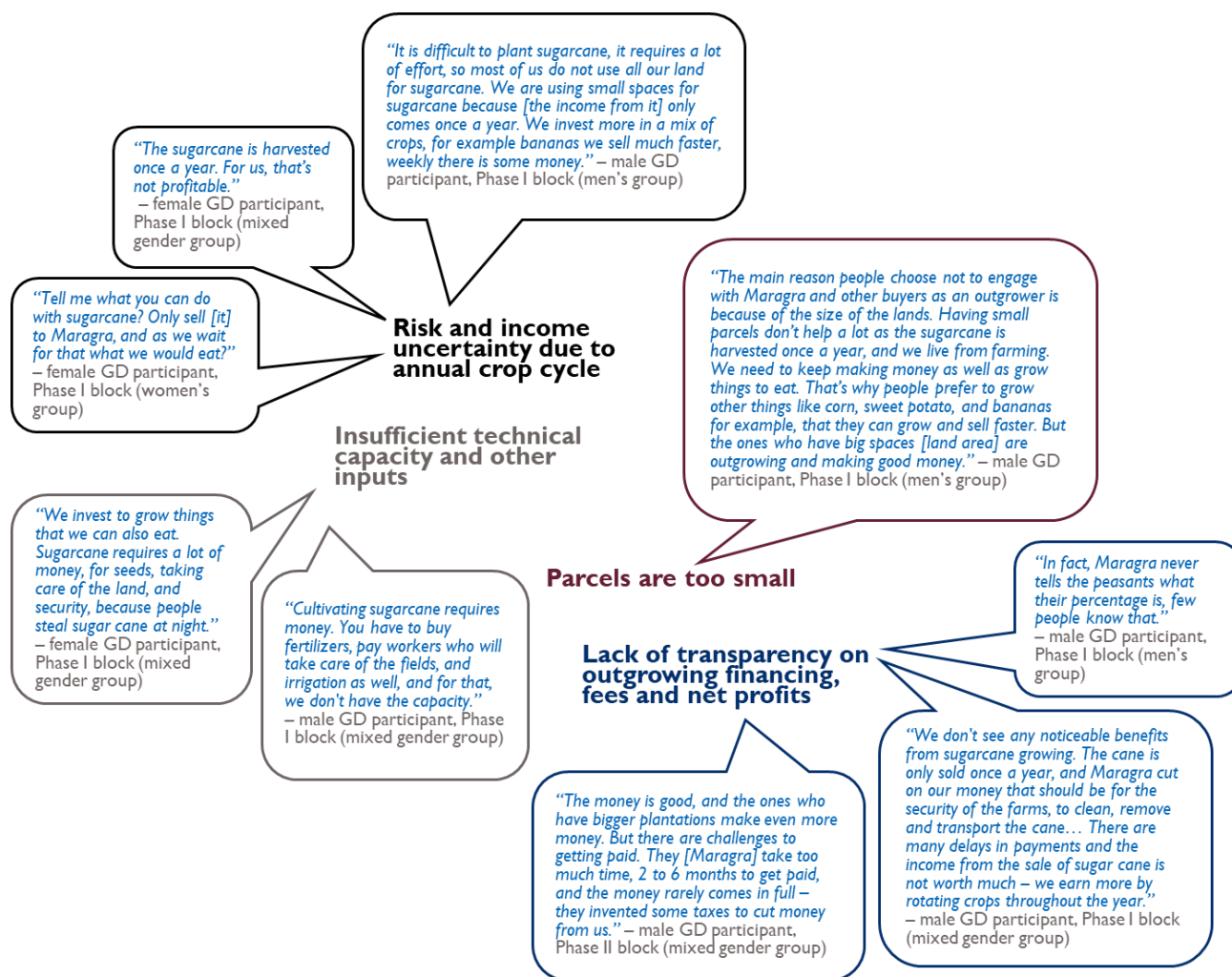


PHOTO CREDIT: LAUREN PERSHA

A truck ferries harvested sugarcane to the mill at Maragra.

²³ The cane loses sugar content as it dries, hence value, as the price farmers receive is based on the sugar content in the cane at the time the cane is pressed at the mill at Maragra. Thus, farmer dependency on external transport and related uncertainty over transport timing contributes to farmers' post-harvest income losses and income uncertainty.

Figure 15. Illustrative Quotes on Beneficiaries' Barriers to Sugarcane Outgrowing



Still, some GD participants who were outgrowers for Maragra had clearly had positive experiences and felt they were benefitting from this engagement. As the above quotes illustrate, farmers with more land may be better positioned to engage in outgrowing.

"The factory makes it easy, because it buys everything and when payday comes, they also pay, so we can earn fair money." – GD participant, Phase I block (men's group)

"It is very good to work with Maragra, because they do not choose the cane, they take everything, while individual buyers still want to select and in the end we are left with the cane to dry and that only harms us, not to mention that their money is little and there are conflicts of debts. With Maragra it's better." – GD participant, Phase I block (men's group)

"The money in sugarcane outgrowing is good, when you have big spaces [land area] to grow, you can make good money for a living. The problem is that the harvest is once a year. But we also [farm other crops] as backup." – male GD participant, Phase I block (men's group)

EFFECTS OF PILOT ACTIVITIES ON BENEFICIARY INTEREST AND CHALLENGES WITH SUGARCANE OUTGROWING

- *To what extent were Pilot activities able to address these barriers?*

The concerns highlighted above were also noted by GD participants during the baseline and follow-on rounds for this evaluation. Addressing these constraints was not under the Pilot's purview, but they underscore that the barriers to entry into outgrowing are fairly high for many farmers in the Pilot zones. By follow-on, it seems clear that many farmers would likely need additional assistance beyond the cooperative-issued certificates to be interested in, effectively engage in or be positioned to profit from sugarcane outgrowing.

Ultimately, a key lesson learned at follow-on from the Pilot is that **the scope of the Pilot, focused on easing the land documentation constraint that landholders in the floodplain block face with respect to obtaining an outgrowing contract, was not sufficient to address the many other and unrelated resource constraints that also limit many farmers' ability to become outgrowers in the Pilot context.** In this sense, the Pilot helped to address one of the many constraints that farmers face with respect to outgrowing. As one farmer association leader mentioned:

“the certificate itself doesn't make it easier, because you [also] need to have the capacity to grow sugarcane. The certificates just facilitate having the needed documents [to obtain the contract], when you already can grow sugarcane” (KII, Farmer Association Leader).

Still, there is evidence at follow-on that **for those farmers who did have the capacity to grow sugarcane profitably, the Pilot appears to have contributed to an increase in those who sought and obtained outgrower contracts with Maragra.** There is also some anecdotal evidence that at least some farmers who already grew sugarcane prior to receiving their land certificates chose to expand the area of land under sugarcane and have seen increased profits, as a result of their greater sense of tenure security induced by the certificates. While many GD participants talked about the inability to profit from sugarcane outgrowing, other participants affirmed in their discussion that for those farmers with sufficient knowledge, skills and land, outgrowing can be very lucrative. On net, **the nature of outgrowing constraints beneficiaries highlighted could mean that the Pilot's land documentation inadvertently most helped those smallholders who were already relatively better-positioned with respect to outgrowing, while farmers with very small landholdings and related constraints effectively remained unable to benefit from outgrowing and its potential livelihood gains.**

“Yes, some people gained the will and courage to produce sugarcane because they now have the documents for their land. I also grew sugarcane in more land after the project registrations.” – KII with a Farmer Association Leader

“After the certificates, I had 3 more lands in sugarcane outgrowing as a result. In total, I have 7 big land outgrowing for Maragra. At least for me, sugarcane is giving a good return, I am able to buy concrete to build my house, feed my family and buy some basic things. I also grow bananas, which I sell weekly, but outgrowing sugarcane is more profitable.” – KII with a Farmer Association Leader

LAND AGGREGATION TO FACILITATE COLLECTIVE OUTGROWING CONTRACTS

- *To what extent have participants chosen to aggregate their land to facilitate obtaining collective outgrowing contracts and benefits from sugarcane production? How is this process unfolding, and how is it perceived by participants in terms of equity issues related to land access, benefit-sharing among participants and related issues?*

At follow-on, the evaluation team explored whether the cooperative-issued certificates had unintentionally led to Pilot participants choosing to aggregate their land to facilitate obtaining a collective outgrowing contract with Maragra across the larger pooled land area. This learning interest was raised by local implementing partners,²⁴ however the evaluation did not find evidence at follow-on that such a dynamic is underway at scale in the Pilot zones, based on the qualitative findings. Participants from none of the 16 GDs held at follow-on said that members of their group had chosen to aggregate their land for the purposes of outgrower contracting since receiving the cooperative-issued land certificate.

While it does not appear that the certificates have spurred widespread land aggregation, it is noted that many farmers in the Pilot zones do already participate in outgrowing via a long-existing collective contract with their farmer association. Previous rounds of this evaluation reported that some farmers in the Pilot zone had long been engaged in sugarcane outgrowing via collective outgrower contracts with other members of their farmer association, and the same was also true at follow-on. Some of the GD participants at follow-on stated they were participating in outgrowing for Maragra via a long-standing collective outgrowing contract with other members of their farmer association. The CATI survey data provides some additional insights on how common this arrangement is. Among the 184 respondents in the CATI survey sample who reported engaging in outgrowing, 16.9 percent (N=31) of them reported they were growing sugarcane as part of a collective outgrowing contract at the time of the survey.

Results from previous rounds of this evaluation at baseline and endline suggested that such arrangements, in which members of a farmer association pool the sugarcane grown on their individual parcels within association lands, are not uncommon and were also common in previous eras when Maragra may have preferred to engage primarily with registered farmer associations rather than contracting with individual farmers. The baseline study suggested this was driven in part due to Maragra's concerns around obtaining proof of legitimate land rights, since farmer associations are typically registered entities and in prior decades some of them had been able to obtain a collective DUAT title from government for their association land.

CONCLUSIONS

EQ3 focuses on beneficiary interest in, challenges with and reasons for not participating in sugarcane outgrowing through Maragra, and the extent to which the Pilot activities were able to address any of these barriers. At follow-on, it also examines the extent to which the Pilot activities may have prompted land users in the Pilot zone to aggregate their land and obtain a collective outgrowing contract, and how that process is unfolding if present (it was not).

²⁴ A potential reason why farmers might be interested to do this could relate to obtaining economies of scale around extension support, organizing transport, strengthening their negotiating power, pooling labor and other inputs and resource costs, and more efficient allocation/distribution of fertilizers and other inputs.

At 2018 endline, findings for EQ3 indicated that by providing land rights certificates, Pilot activities appeared to have met one of the key underlying challenges and community needs with respect to their ability to participate in local land-based investment schemes: their ability to provide documented proof of their rights to the land as one of the requirements to obtain an outgrowing contract. But the 2018 endline findings also highlighted this was a necessary but insufficient condition for land users in the Pilot area to effectively participate in sugarcane outgrowing opportunities in their locality.

The results for the 2022 follow-on reinforce this and show that farmers in the Pilot zones continue to face many other important barriers to engaging in outgrowing. Technical skills, capital support, high information uncertainty, high labor needs, and insufficient landholdings were also important reasons that many of the Pilot beneficiaries had not engaged in outgrowing opportunities. Many participants highlighted that outgrowing would require unacceptable tradeoffs related to their food production and regular income needs, given their fixed and insufficient landholdings, while the annual harvest cycle for sugarcane also entailed too much risk given their household economic situations.

Findings at follow-on suggest that sugarcane outgrowing can indeed be lucrative for farmers who have the requisite skills, knowledge of the process, access to inputs, and sufficient land area. For those who do not, the Pilot was not positioned to address many of these substantial barriers to entry. Farmers with very small parcel sizes may be particularly disadvantaged. Many participants also cited their reliance on subsistence and food crop farming as their primary source of income, together with a need for a regular income flow across the year. The once-per year revenue associated with the sugarcane harvest cycle is unacceptably risky for such farmers. Those who can accommodate it are often larger landholders who can allocate some of their land to market crops with shorter harvest and revenue cycles, like bananas or maize, while also maintaining a sufficiently profitable area of land under sugarcane. The follow-on concludes that Pilot activities were able to effectively address the challenges that land users faced around tenure security and a lack of documented proof of their land rights in the floodplain zone, but the Pilot was not designed to address the types of targeted support in these other domains that would also be needed for more farmers to be able to take advantage and benefit economically from outgrowing.

Still, there is evidence at follow-on that for those farmers who did already have the capacity to grow sugarcane profitably, the Pilot appears to have contributed to an increase in those who sought and obtained outgrower contracts with Maragra. There is also some anecdotal evidence that at least some farmers who already grew sugarcane prior to receiving their land certificates chose to expand the area of land under sugarcane and have seen increased profits, as a result of their greater sense of tenure security induced by the certificates. This is an important achievement, but it also raises the possibility that the nature of outgrowing constraints in the Pilot context may have meant the Pilot's land documentation inadvertently most helped those farmers who were already relatively well-positioned, while farmers with very small landholdings and related constraints effectively remained unable to benefit from outgrowing and its potential livelihood gains.

EQ4: WHAT ARE THE LESSONS LEARNED FROM THE PILOT ACTIVITIES THAT CAN INFORM FUTURE APPLICATION OF THE AF TO BETTER ACHIEVE COMMUNITY-LEVEL OBJECTIVES?

FINDINGS

Key Findings for EQ4 at Follow-on

- **The cooperative-issued certificates were effective for improving farmers' tenure security over land they use in the floodplain Pilot Zone, but less successful for increasing outgrower participation** because a lack of documentation to prove legitimate rights to the land is only one of several barriers to outgrowing that farmers in the Pilot zone face. Still, the qualitative and survey findings at follow-on both support a link between the certificates and increased outgrowing among some beneficiaries, although the evaluation design cannot attribute this solely to the Pilot.
- **A key lesson at follow-on regarding the Pilot's effects on perceived tenure security is about the time it can take for customary land users to perceive change at scale.** Although there were indications at endline that beneficiaries felt the Pilot activities had improved their tenure security, this was stronger and more widespread by follow-on -- four years later and well after Pilot activities had ended.
- **Evidence for economic and broader livelihoods benefits as result of the certificates is mixed, and suggests future programs should consider targeted companion programming aimed at strengthening linkages between the certificate and access to economic activities.** There is some evidence at follow-on that the cooperative-issued certificates played a role in improving many beneficiaries' broader economic situations or livelihoods, whether via a greater opportunity to engage in outgrowing, motivating more productive use of their land for sugarcane or other crops, or otherwise. For those who did not feel the cooperative-issued certificates had helped them improve their economic situation, the main reason was that they had not seen opportunities to use the certificate to engage in any new or more lucrative activities. A key lesson for similar Activities in future, and to improve the likelihood of sustained achievements over time, is that such efforts may need to include additional programming targeted at reducing some of the several other barriers to outgrowing that farmers face in addition to those addressed by documented land rights, or partner with other programs that can address these other factors.
- **Effects on women's empowerment are mixed but suggest many women beneficiaries felt the certificates have provided benefits that extend beyond improved tenure security on its own.** There is strong evidence at follow-on that the Pilot led to increased tenure security for women beneficiaries and on par with improvements experienced by men. Women beneficiaries were not able to leverage their increased tenure security and confidence in their land rights for greater economic empowerment at scale, or to a greater extent than men, for a similar set of reasons irrespective of gender. There was also little evidence to suggest women perceived the Pilot activities to have substantially changed their general access to or control over land in the floodplain, including the types of crops they grow or extent of decision-making over the land. However, women described their current situation on these issues as positive and they also clearly viewed the Pilot to have strengthened their ability to maintain rights to their land in future. The evaluation also found no evidence that women had commonly experienced negative consequences as a result of documented land rights or having land registered solely in their name.

- **While male and female beneficiaries alike observed that many women in the floodplain zone engage in outgrowing and women do not face greater barriers to entry than men, the survey data also suggest that women participate in outgrowing less commonly than men.** Still, the data show that a sizeable minority of women beneficiaries felt the certificates had contributed in some way towards improvements in their economic situation, including a small minority who cited the certificate's role in helping women obtain outgrowing contracts specifically.
- **The evaluation finds some evidence to suggest improvements in beneficiaries' perceptions or direct experiences with local government authorities on land issues as a result of the Pilot.** Qualitative participants felt that authorities' knowledge of the certificates had helped to deter land-based corruption facilitated by some within local government. However, many evaluation participants felt there were no material changes on this. Improved perceptions of the quality of land services or support that local government authorities provide in the years since the USAID Pilot project was more common among survey respondents, who attributed their outlook to a reduction in land disputes, possession of documentation confirming their land rights, or improved tenure security more generally.

EFFECTIVENESS AND SUSTAINABILITY OF COOPERATIVE-ISSUED LAND CERTIFICATES TO ACHIEVE TENURE SECURITY AND OUTGROWER PARTICIPATION GOALS

- *What is the effectiveness of cooperative-issued certificates to achieve tenure security and outgrower participation goals? Are there any steps that could be taken to improve the likelihood for sustained achievements over time?*

The follow-on findings strongly suggest the cooperative-issued certificates were effective for improving farmers' tenure security over land they use in the floodplain Pilot Zone, but there was less success with increasing outgrower participation because a lack of documentation to prove legitimate rights to the land is only one of several barriers that farmers in the Pilot zone face regarding outgrowing.

Results related to tenure security are presented in EQ2 and not repeated here. A key lesson learned at follow-on regarding the Pilot's effects on tenure security is on the time it can take for customary land users to perceive change at scale. Although there were indications at endline that beneficiaries felt the Pilot activities had improved their tenure security, this was even stronger and more widespread by follow-on -- four years later and well after Pilot activities had ended. It is also clear at follow-on that beneficiaries widely attribute their stronger tenure security to their possession of the cooperative-issued certificate, which they trusted would be able to protect them against most types of land disputes they might face. Although a pervading mistrust of government authorities and outsiders was a consistent concern for farmers at endline and follow-on, there was less certainty at endline over whether the certificates could help protect farmers from this potential source of threat to their land in future.

With respect to the Pilot's effects on increasing outgrower participation, the follow-on findings do suggest that a greater proportion of Pilot beneficiaries became outgrowers for Maragra during and after the Pilot years. The qualitative and CATI survey findings both support a link between the certificates and increased outgrowing. At follow-on, the proportion of CATI survey respondents who were engaged in outgrowing had increased from 14.3 percent at endline (N=69 of 483 respondents) to 34.5 percent (N=184 of 534 respondents) of the follow-on sample. This is a significant increase from endline, although it cannot be attributed solely to the Pilot, given the evaluation design. This is because a greater proportion of respondents in the expanded follow-on sample could by chance have been outgrowers,

while other conditions and dynamics in the Pilot zone since endline could also have contributed to the increase that was seen at follow-on.

Still, it is notable that at follow-on 57.2 percent (N=87) of outgrower contract holders in the CATI survey sample believed the certificates had helped them in some way to obtain their outgrowing contract, despite that most of these respondents did not use the document directly in the process (no differences by gender). The qualitative findings at follow-on confirmed that many individuals with outgrowing contracts had not been required to use their certificates as part of the contracting process with Maragra.

Across a small number of GDs at follow-on, participants also said they felt the cooperative-issued certificates had helped individuals to become outgrowers with Maragra, mainly by providing them with one of the several different types of acceptable forms of documentation that Maragra requires. However, many GD participants noted that Maragra did not require them to show their certificate in order to obtain an outgrowing contract, as also supported by the CATI survey data at follow-on.

“People with land documents are preferred [for outgrowing contracts], as Maragra does not require multiple documents.” – female GD participant, Phase I block (women’s group)

“Now things are going well with our lands legalized. Before the legalization, it was difficult to be in large businesses or sell sugarcane to Maragra and others, because of the lack of documents.” – female GD participant, Phase I block (women’s group)

The Pilot theory of change for increased outgrower participation appeared to assume that as part of its commitment to contracting only with legitimate landholders, Maragra would always require the farmer to have a land certificate or local customary declaration of land rights to be eligible for a contract, and would no longer proceed with contracting solely on the basis of formerly accepted documents such as government IDs, which do not provide proof the contract-holder is the rightful owner of the land. This assumption does not seem to have held in practice, however, as many respondents at follow-on noted they were able to obtain a contract without using the certificate. Instead, it seems the certificate has become one of many different types of documents that Maragra will accept as part of the contracting process, which may weaken the ultimate value or utility of the certificate for outgrowing over time.

“We don’t think the certificate helped, because they [Maragra] don’t ask for it. ... We have been closing contracts with Maragra without needing DUATs for a long time.” – female GD participant, Phase II block (mixed gender group)

The TOC also did not seem to consider the extent to which other barriers to entry around sugarcane outgrowing could continue to dampen farmers’ interest in outgrowing into the future, even after they had received the land certificate. Small parcel sizes, high technological, inputs and extension knowledge barriers to growing sugarcane profitably, tradeoffs around sugarcane production and farmer subsistence food needs, food security, and a need for regular cash income streams from their farming activities throughout the year are other key reasons many farmers in the floodplain zones are not interested in outgrowing. These were also highlighted by beneficiaries at endline. The extent to which many farmers continue to perceive outgrowing as a risk, rather than contribution to help meet their livelihoods needs as anticipated by the TOC, is that much more clear at follow-on.

To improve the likelihood for sustained achievements over time, the follow-on findings suggest that in contexts similar to the Pilot, customary land formalization projects that aim to increase outgrowing at scale likely need to include additional programming targeted at reducing some of the many other barriers to entry that farmers face, or partner with other programs that can address these factors. These are not related to tenure security nor can be mitigated by documented land rights on its own. They are discussed in more detail in EQ3 and include knowledge, skills, transport, labor, material inputs and other resource constraints; mistrust of how company or donor-supported financing of outgrowing works and the extent to which farmers will have transparency around various fees and withholdings that affect their ultimate revenue and profit; and how farm size and farmers' reliance on regular income flows throughout the year affect farmer's interest in and perceived viability of engaging in outgrowing.

Given that many farmers' land and resource contexts in the floodplain zones renders sugarcane production less viable or profitable for them, support to help farmers overcome outgrower entry barriers likely would need to be targeted to certain types of farmers via some eligibility criteria. This could be established during activity planning or as part of a subsequent phase, for example taking into account parcel size, soil quality, flooding likelihood and other land context factors, farmer interest, skills, resources, and related factors.

ECONOMIC AND BROADER LIVELIHOODS BENEFITS

- *To what extent has participants' possession of cooperative-issued certificates played a role in improving their agricultural production, farm-related income, and broader livelihoods, whether through sugarcane outgrowing or other routes? In what ways? If no improvements have been obtained, what are the main reasons why?*

Although results are mixed, there is some evidence at follow-on that **the cooperative-issued certificates played a role in improving many beneficiaries' broader economic situations or livelihoods, whether via a greater opportunity to engage in outgrowing, motivating more productive use of their land, or otherwise.** In 5 of 16 GDs (2 GDs with women, 1 with men, and 2 mixed-gender GDs) held at follow-on, participants linked the Pilot's land formalization activities and issuance of the cooperative-issued land certificates to improvements in their income or economic situation via outgrowing engagement or other opportunities.

"Now, more than ever we have managed to position ourselves in the market; we participate in the same businesses as men. Only we are not many, in numbers men are much more, but we women also manage to be on the same level." – GD participant, Phase I (women's group)

"[The certificate] helps to boost our economy, because we plant sugarcane and sell it to Maragra. We also sell sweet potatoes, cassava and bananas for sale." – GD participant, Phase I (women's group)

For these women, the income they earned through outgrowing or other cash crops was the main benefit they saw, which in turn they used for general needs for themselves or their families. In a Phase I mixed gender GD, two women participants described how the cooperative-issued certificates had helped them to improve their economic situation, saying they had started to grow more sugarcane for Maragra, and also began growing red cane, which is used to make juice, for markets in Maputo. Although these participants saw a link between their certificates and the economic benefits they were obtaining from their farming in the floodplain, they also mentioned they had not needed to show their certificates to obtain their outgrower contracts.

In another GD, participants from one farmers association said the cooperative-issued certificate had helped their overall economic situation because they collectively leased some of their land to someone else who has a contract to sell sugarcane to Xinavane estate. They were able to show their cooperative-issued certificates to prove that the land belonged to them, which they said made the rental process smoother.

“Yes it helped. We lease land to someone who has a contract to sell sugarcane for Xinavane. And we showed our [certificates] to prove that the spaces belong to us; it made the process smoother.” – male GD participant, Phase I block (mixed gender group).

Lastly, participants from two men’s or mixed gender GDs expressed that the certificates motivated farmers to use their land more productively, as illustrated below:

“Yes, it [the certificate] helped, without a doubt it did. When people know they have a guarantee that the land is theirs, they gain more strength to work, and when they do so, they produce much more.” – male GD participant, Phase I block (men’s group)

For the approximately half of GDs held at follow-on **where participants did not feel the cooperative-issued certificates had helped them improve their economic situation, the main reason was that they were still farming just as they had prior to the Pilot and they had not seen an opportunity to use the certificate to engage in any new or more lucrative activities.** In other cases, participants viewed the certificates as important for tenure security, but they did see them as having a link to economic growth. For example, these participants explained:²⁵

“We don’t feel that these papers have supported us to make more money. So far, we didn’t need them to do business. We grow and sell [sugarcane] in the same way we have done since before the project.” – male GD participant, Phase I block (men’s group)

“Having the [certificate] didn’t change our income, and so far we never had to use the certificates for anything. This [the certificate] is [mainly] for [land] protection.” – female GD participant, Phase I block (women’s group)

Although many GD participants did not explicitly tie the certificates to increased economic opportunities or income, some participants with larger landholdings noted that growing sugarcane does provide extra income for their households, as illustrated by these quotes below:

“[The main benefit of outgrowing is that] It’s possible to make some money. From one hectare, it’s already fair money, and it’s even better for those who have bigger lands.” – female GD participant, Phase I block (women’s group)

Despite having individual outgrowing contracts and realizing a profit, these women respondents did not attribute their improved economic situation to the cooperative-issued certificates because they had not needed to use the certificates to obtain their contracts. As the women stated:

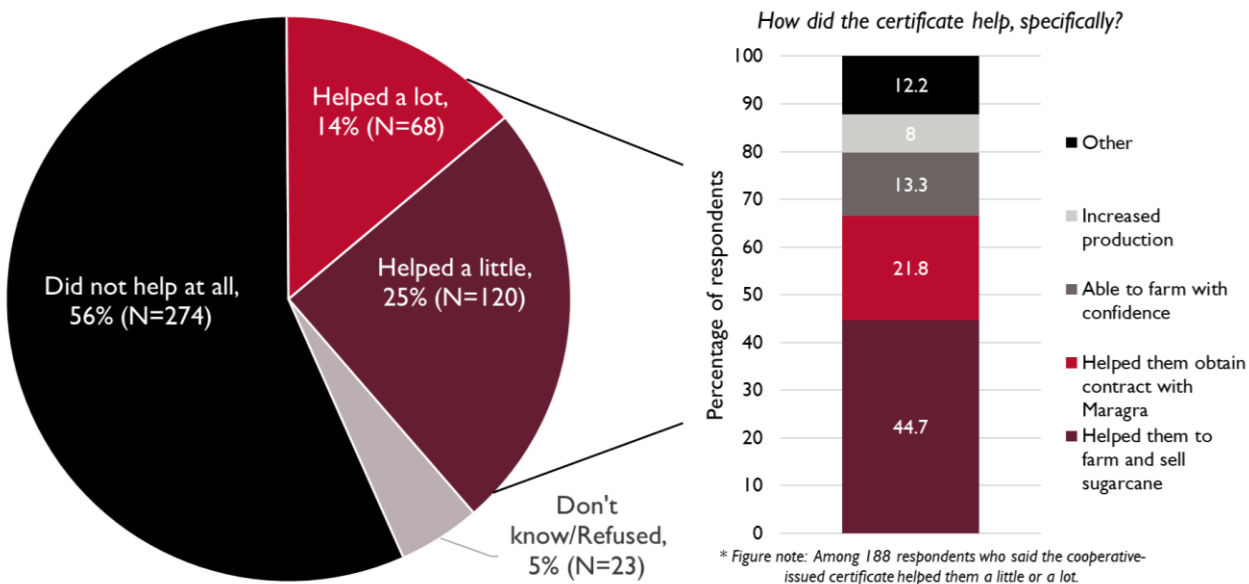
“No, they (Maragra) didn’t ask for it [the certificate].” ... “They don’t require certificates, as long as you can get witnesses that the land is yours, and a declaration of ownership by the local leader, plus a few

²⁵ Seven of the 11 participants in the men’s GD were outgrowers but their contracts predated the Pilot. These participants did express strong improvements to their tenure security as a result of the certificates, but not to their economic situation.

more signatures from other members of the local leadership, you can get [a contract]." – female GD participants, Phase I block (women’s group)

The CATI survey data also supports the qualitative findings of mixed results for a link between the land certificates and improvement to Pilot beneficiaries’ economic situation. Respondents were asked to what extent the cooperative-issued land certificate helped them to increase their income or improve their economic situation. Among the 485 survey respondents who had cooperative-issued certificates, 14.0 percent (N=68) thought the certificates had helped a lot and 24.7 percent (N=120) thought they had helped a little, while 56.5 percent (N=274) thought they had not helped at all and 4.7 percent (N=23) did not know or refused to answer (no significant differences by gender of respondent).

Figure 16: Impact of Certificates on Beneficiaries’ Economic Opportunities



Although a majority of respondents reported no economic gains as a result of the certificates, it is also clear that a sizeable minority of beneficiaries did feel the certificate allowed them to engage in new practices on their land that helped to improve their economic situation. **Among the 188 respondents who said the certificates had helped them a lot or a little, the reasons why were as follows: 44.7 percent (N=84) said it had helped them to farm and sell sugarcane, 21.8 percent (N=41) said it had helped them obtain a contract with Maragra, and 13.3 percent (N=25) said they were able to work with confidence and feel safe as a result of having the land certificate.** A small proportion of respondents, 8.0 percent (N=15) said the certificates had allowed them to increase their production, while 12.2 percent (N=23) gave other reasons or could not say how the certificate had helped them specifically to increase their income or improve their economic situation.

Disaggregating by gender of respondent, **a greater proportion of women highlighted the certificate’s role in helping them to farm and sell sugarcane** (48 percent of female respondents vs 41 percent of male respondents) or obtain an outgrowing contract (26 percent of female respondents vs 17 percent of male respondents), although the differences are relatively small.

KIIs with local implementing partners also highlighted typical challenges to creating economic opportunities in rural areas of Mozambique more generally, including a lack of credit facilities and

uncertain or difficult access to markets outside of the sugar value chain. **While the Pilot was particularly constrained in terms of meeting objectives around expanding economic opportunities for land users in the floodplain blocks, it did meet its tenure security objectives and ultimately this may in turn spur an increased willingness by Pilot beneficiaries to invest in their land over the longer term in a variety of ways that may not be directly observable at this stage.**

WOMEN'S EMPOWERMENT OUTCOMES

- *To what extent has customary land formalization through cooperative-issued certificates increased tenure security for women beneficiaries, and has this led to their increased economic empowerment?*
- *How has women's control over land and participation in land related decision-making changed, if at all? Have there been any positive or negative consequences, whether intended or not, to women as a result of having land registered solely in their name?*

PILOT PARTICIPATION, LAND RIGHTS KNOWLEDGE, TENURE SECURITY AND RECEIPT OF CERTIFICATES

The findings at follow-on provide strong evidence that the cooperative-issued certificates increased tenure security for women beneficiaries equally as for men, while there were also no differences by gender regarding beneficiaries' perceived knowledge of their land rights as a result of Pilot activities. There were also no discernable differences in participants' perception or participation in the Pilot activities on the basis of gender, nor with respect to receipt or perceptions of the certificates.

ENGAGEMENT IN OUTGROWING AND BROADER ECONOMIC EMPOWERMENT

Despite the positive results for women presented in the previous section, there is some evidence at follow-on to suggest that women are generally less likely to participate in sugarcane outgrowing than men, although in several GDs men and women alike noted that many women with land in the floodplain zones are outgrowers and do not face greater barriers to entry than men.

At both endline and follow-on, the proportion of women in the CATI survey sample who had an outgrower contract was significantly lower than for men, suggesting that women may indeed participate in outgrowing less commonly than men. At follow-on, 21.2 percent of the 297 female survey respondents reported outgrowing (N=63) while 51.2 percent of the 237 male survey respondents were outgrowers (N=121).²⁶ The qualitative data at follow-on did not reveal any key reasons that might drive this disparity, although potential contributors, if present, could include any of several factors often associated with women in customary land settings, such as having smaller land parcels on average, a greater need or expectation that their farming activities will focus on food production to meet household subsistence needs, less access to on-farm labor for labor-intensive crops such as sugarcane, fewer resources to obtain required farming inputs or technical expertise, and so on.

As presented above, there is also some evidence at follow-on that many women Pilot beneficiaries did feel they benefitted economically as a result of the Pilot activities, whether via the ability to take advantage of outgrowing, leveraging their improved tenure security over the land to grow additional cash crops, or otherwise. These results are mixed, however, as they are for the sample overall, although

²⁶ Among the 184 survey respondents at follow-on who reported outgrowing, 65.8 percent were men (N=121) and 34.2 percent were women (N=63). Overall, female survey respondents were 35 percent less likely to report growing sugarcane for Maragra than male respondents ($P < 0.001$).

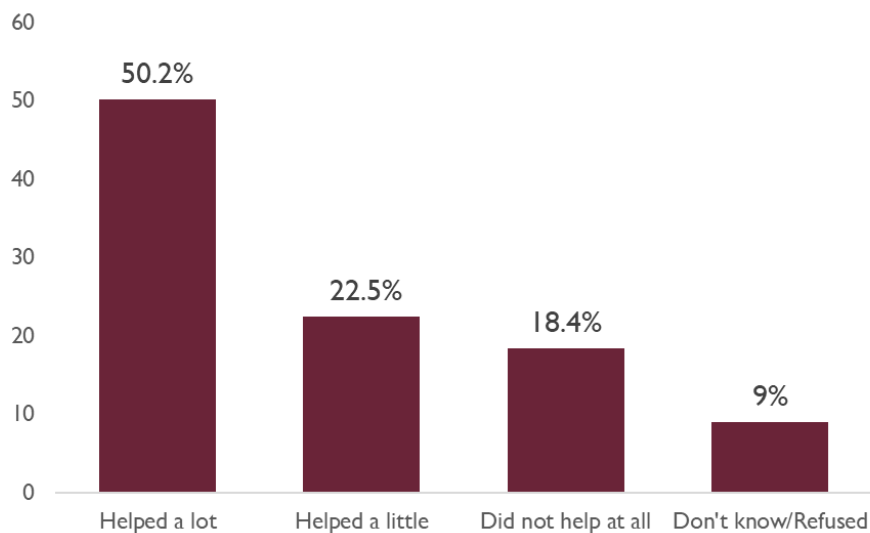
both the qualitative and quantitative data provide some evidence to support this for some proportion of female beneficiaries. **The CATI survey data suggests that a sizeable minority of women beneficiaries (~40 percent of female survey respondents) felt the certificates had helped them towards an improved economic situation, and this was on par with the proportion of male respondents who felt the same.**

ACCESS TO AND CONTROL OVER LAND

At follow-on, there was little evidence to suggest that the Pilot activities had substantially changed women’s access to or control over land in the floodplain zones, or the types of challenges they typically face with respect to land. However, across the GDs, women also did not describe the current status quo on this as negative. The qualitative results suggested that women generally did not view the certificates to have led to substantive changes in their land situations, including the types of crops they grow or extent of their decision-making control over the land. They also did not feel that women had experienced negative consequences from their spouses or other family members as a result of having a land certificate in their own name.

In contrast to the qualitative findings, the majority of survey respondents felt the cooperative-issued certificates had helped to reduce challenges that women may face around owning, using or benefiting from land in the floodplain blocks (Figure 17). Among the 534 survey respondents at follow-on, 50.2 percent (N=268) thought the certificates had helped a lot, 22.5 percent (N=120) thought they had helped a little, and 18.4 percent (N=98) thought the certificates had not helped women at all. Nine percent (N=48) did not know or refused to respond. There were some gendered differences in these responses, however, with a greater proportion of female respondents reporting the certificates had not helped women at all, or only a little (44.5 percent of female respondents (N=138) relative to 23.8 percent of male respondents (N=80)).

Figure 17: Perceived Contribution of Certificates in Reducing Women’s Land Challenges (Response to question, “To what extent do you think the cooperative-issued certificates have helped to reduce challenges women may face around owning, using or benefiting from land in the floodplain blocks?”)



Among those respondents who felt the certificates had helped to reduce women’s land challenges a lot or a little, the reasons they gave overwhelmingly focused on tenure security benefits of the document, while some mentioned improvements women’s agricultural productivity in general or their ability to obtain an outgrowing contract (Figure 18). Among these 388 respondents, 75.8 percent (N=294) said the certificates had helped increase women’s tenure security over land, 8.3 percent (N=32) said the certificates had helped women to protect their land from other family members, 18.8 percent (N=73) thought it helped women to improve productivity on their parcels, and 10.3 percent (N=40) said it had helped women obtain access to outgrowing contracts. Another 8.8 percent (N=34) did not know, gave other responses or refused to answer. Examining these responses by gender, men were more likely than women to cite a general tenure security benefit as the key reason why the certificate had helped women (78.5 relative to 69.6 percent for male and female respondents, respectively). There were no other differences by gender in terms of the reasons provided.

Figure 18: Reasons Why the Certificate Helped Reduce Women’s Land Challenges



EFFECTS ON PERCEPTIONS OF LOCAL GOVERNMENT LAND SERVICE DELIVERY

- *Has there been any changes in land-related services provided by local government authorities as a result of the Pilot, or participants’ experiences or perceptions of the same? What are key reasons why?*

There is a small amount of evidence at follow-on to suggest some improvements in beneficiaries’ experiences with local government authorities on land issues as a result of the Pilot, although improvements on this were mentioned in only two of 16 GDs at follow-on and the reasons participants thought this was not always unclear. In one women’s GD, a participant felt the improvements stemmed from those in positions of power who previously would grab land no longer doing so, because they knew the certificates had come from ‘the authorities’. In the participant’s view, the knowledge that people in the floodplain had a certificate of their land rights issued by the authorities had helped to deter land-based corruption facilitated by some within local government.

“These certificates put an end to the greed of local leaders over our land.” – GD participant, Phase I block (men’s group)

In the remaining GDs, participants felt that largely there had been no changes in the nature or quality of land-related services or support that local government authorities in the area provide. Instead, these participants felt there were no material changes in this respect. Some GD participants described negative experiences they had with local municipal authorities in the past related to land, which contributed to their ongoing mistrust of those authorities. This could have continued to shape their current negative views, even if they had not had recently interacted with those authorities.

“The government is a hard bone to break. They don’t support us in any way.” – female GD participants, Phase I block (mixed gender group)

“We tried to get the formal DUAT a very long time ago with the government authorities, for all associations way before the project. We paid and spent our money but we never had the DUATs. They just keep saying to come later, to come in 3 months. They came and did the measurements and everything but they never gave us the papers, and they will never.” – male GD participant, Phase I block (mixed gender group)

Among CATI survey respondents the outlook was more positive. Sixty-one percent (N=325) of respondents said they had experienced some improvement in the quality of land services or support from local government authorities in the years since the Pilot. Among the 476 respondents who gave a positive opinion, the most common explanations provided were: because there were no longer any land disputes (27.7 percent; N=132), the Pilot had given them a DUAT (13.0 percent; N=62), or they felt more secure about their land (10.5 percent; N=50). Among the 26 percent (N=139) of respondents who did not feel there had been a change on this, the most common explanation provided was that the government does not support land rights (4.8 percent; N=23) or simply that they had not seen any improvement (10.7 percent; N=51). A small number said it was because land conflicts are still continuing (2.1 percent; N=10).

CONCLUSIONS

EQ4 focuses on overarching lessons learned from the Pilot activities across broad objectives and key learning interests. At 2018 endline, findings for this EQ focused on issues that had challenged Pilot implementation and resulted in many intended beneficiaries not being able to fully participate in the Pilot or receive a cooperative-issued certificate by endline (for example: the short implementation timeline for the Pilot, communication and data management challenges). At follow-on, this EQ focuses on lessons learned related to the effectiveness and sustainability of the cooperative-issued land certificates to achieve improvements on five different issues: tenure security, outgrowing participation, women’s empowerment, broad economic and livelihood benefits, and land service delivery by local government. The 2022 follow-on findings point to important lessons for each of these.

The Pilot activities and cooperative-issued certificates clearly can meet tenure security objectives for communities, while the follow-on results also make clear that the timeframe to achieve this strongly and at scale can take several years, for an activity that is similar in scope and context to the Pilot. The positive side to this is that the results also suggest that the tenure security effects are indeed sustained and may even grow over time, several years after the Activity lifetime.

The evidence for economic and broader livelihoods benefits as a result of the Pilot activities is much more mixed. There is some evidence at follow-on that the cooperative-issued certificates played a role in improving many beneficiaries’ broader economic situations or livelihoods, but a key lesson is that such efforts may need to include additional programming targeted at reducing some of the several other barriers to outgrowing that farmers face in addition to those addressed by documented land rights, or partner with other programs that can address these other factors, as also discussed in more detail previously in this report.

With respect to women’s empowerment objectives specifically, it is clear that women beneficiaries in the Pilot context feel the certificates largely address their tenure security concerns and vulnerability to land loss at this stage. But to obtain more impactful achievements for women’s economic empowerment, future activities would likely need to incorporate additional components that aim to

reduce some of the other substantial barriers to outgrowing or other land-based economic opportunities that women face. Some of these challenges may also relate to more systemic issues women often face regarding land size, quality, and entry to markets in general. Hence, future programming may also want to consider more targeted gender-based programming for women potential beneficiaries that may also benefit from taking such factors into account more explicitly.

Lastly, the follow-on results provide some positive support for the theory that AF-guided activities such as those undertaken by the Pilot can also have knock-on positive effects with respect to improving transparency and/or quality of land service delivery by local government authorities. While not explicitly anticipated in the theory of change, the results at follow-on suggest that at least some Pilot beneficiaries felt that the Pilot's activities, including participatory mapping and issuance of recognized land documentation, may have served to dampen land-based corruption or inequitable service delivery facilitated by some local actors connected to or within positions of government authority.

RECOMMENDATIONS

The evaluation team makes the following recommendations based on findings and conclusions from the follow-on evaluation. These recommendations aim to help USAID design and implement future AF-guided programming that links participatory land mapping and documentation of land rights to broader efforts to strengthen land tenure security and minimize risks to affected communities associated with land-based outgrower opportunities through private firms. The recommendations are most relevant for activities that are similar in scope and context to the Pilot, including those that seek to strengthen beneficiaries' private sector engagement via outgrowing or similar land-based economic opportunities, and women's empowerment through land rights documentation and/or formalization.

FOR USAID AND FUTURE IMPLEMENTING PARTNERS

- **In future similar land mapping and documentation efforts, Activities should consider systematically offering land documentation services across all of the land-based investor firms' potential catchment area for outgrowing contracting, or offering coverage to a portion of the potential catchment via a strategy designed to facilitate a more rigorous understanding of impacts over time.**²⁷ Results at follow-on provide support that the AF-guided Pilot activities can achieve land certification's tenure security aims and improve beneficiaries' engagement with outgrowing schemes, although they may be less likely on their own to change beneficiaries' perceptions of land-based investor firms in the absence of activities specifically targeted towards this. The Pilot activities did help to increase awareness on customary land documentation and its linkages to facilitating access to outgrowing contracts. This in turn created a perceived value of the certificates among potential beneficiaries and helped to increase the number of beneficiaries who were able to engage in outgrowing, by reducing one of the documentation barriers to obtaining contracts that land holders in the Pilot zone faced.

However, the Pilot-issued land documentation remains only one of several acceptable forms of documentation that the investor firm accepts as part of the outgrowing contracting process, and the Pilot's work in various portions of each of the floodplain blocks, determined in part by effectiveness of Pilot outreach to all potentially eligible landholders across the different blocks and farmer association interest to participate at Activity start, together with factors like flooding during the parcel delimitation period, meant that not all potentially eligible farmers in the floodplain had an opportunity to participate, for a variety of reasons. The land-based investor firm in the Pilot context cannot require the cooperative-issued land certificate as part of contracting, since it was not offered to everyone. Nor does it appear to have institutionalized consistently asking for the document as part of its outgrower contracting process or commitment to conducting due diligence with respect to confirming the outgrowing applicant has legitimate rights to the land on which the sugarcane would be produced. In turn, these factors may have dampened the potential demand for and utility to farmers of the Pilot's documentation for outgrowing, hence potential impacts with respect to outgrowing engagement or future land-grabbing in the floodplain.

The extent to which rigorous learning about Activity impacts is possible also relates to aspects of Activity implementation. Future activities can obtain deeper learning on potential impacts, and the extent to which they can be attributed to the activity with confidence, via an implementation

²⁷ Noting that systematic land documentation is best practice for first-time land documentation, but also typically requires more resources and a longer activity development timeline. This may not always be available in the context of a Pilot, but should be prioritized where possible.

approach that is designed with such learning objectives in mind from the start.

- **Prioritize from Activity start identifying a feasible solution for the longer term maintenance of the resulting cadastral system and beneficiaries' land rights information.** The Pilot's aim to embed these responsibilities within a local farmer cooperative made sense as a potential local solution in the Pilot context but does not appear sustainable over the longer term given the cooperative's ongoing capacity challenges and apparent lack of incentive or mandate to continue these responsibilities indefinitely or after the Activity lifetime. As a result, there is also a risk that land use and transfer dynamics may revert back to informal transactions. Future activities should also consider exploring alternative solutions that are more directly embedded in existing local land administration systems, if present, where any capacity building undertaken by the Activity might also serve to help strengthen national land administration capacities at local levels as well.
- **AF-guided Activities focused on land documentation should identify what other barriers to participation in land-based investment schemes intended beneficiaries face, and consider companion programming to help address key barriers unrelated to land issues (for example related to outgrowing extension, inputs, related technical support, clarifying and providing transparency on financing) or partner with others that are positioned to provide such support, where feasible.** A key lesson learned at follow-on from the Pilot is that the scope of the Pilot, focused on easing the land documentation and tenure security constraints that landholders in the floodplain block faced with respect to engaging in outgrowing, was important but not sufficient for addressing the many other underlying barriers to entry that also limit many farmers' ability to participate in outgrowing in the Pilot context. The underlying challenges that communities face with respect to participation in land-based investment schemes are multi-faceted, and so AF-guided activities may similarly need to adopt multi-faceted strategies to reduce those challenges and achieve ultimate objectives.
- **To strengthen equitable achievements and reduce underlying challenges to participation in land-based investment opportunities for a broader set of intended beneficiaries, Activities should undertake broad situational analyses during Activity planning to determine for which types of potential beneficiaries land documentation and improved tenure security on their own might be likely to catalyze greater engagement in outgrowing opportunities, given program context.** This can include work with private sector partners at activity planning or early design stages to gain understanding about characteristics of successful farmers for the given land-based investment opportunity under consideration. For intended beneficiaries for whom land documentation and improved tenure security on their own are especially unlikely to be sufficient to overcome their barriers to outgrowing, additional streams of companion programming may need to be designed. The Pilot's land documentation appears to have inadvertently but disproportionately benefitted beneficiaries who were already relatively better-positioned to take advantage of outgrowing opportunities to begin with. This suggests that future efforts to meet community needs related to participating in land-based investment schemes should consider undertaking a broader situational analysis during Activity planning to determine the extent to which land documentation and improved tenure security on their own might be likely to catalyze greater engagement in such schemes, and for which types of potential beneficiaries, given program context. Taking potential equity issues into account explicitly at Activity planning stage may also help to ensure that achievements beyond tenure security can ultimately be obtained across a wider range of intended beneficiaries.

- **To strengthen the potential to achieve broad-based objectives related to women’s economic and other forms of empowerment, future Activities should consider targeted gender-based programming for women potential beneficiaries that explicitly takes into account common land constraints that women face in the Activity context.** Such constraints could be explored as part of Activity planning early in an Activity lifetime, to help inform the design and roll-out of a targeted gender-based strategy to help achieve women’s empowerment objectives. This could include attention to several systemic issues women often face such as land size, quality, and entry to markets in general.

FOR USAID AND PILOT IMPLEMENTING PARTNERS

- **Prioritize obtaining resolution for longer-term capacity and responsibility to manage the Pilot’s land registry.** The findings at follow-on regarding persisting capacity gaps within Hluvukani cooperative to manage the Pilot cadastral system and related responsibilities regarding the cooperative-issued certificates pose a concern for the longer-term sustainability of the Pilot’s achievements. Addressing this component could also entail exploring alternative solutions that move away from the reliance on Hluvukani over the long-term, if other and more sustainable local alternatives that are more directly embedded in national land administration systems are now available.
- **In the post-Pilot period, Pilot IPs should work with farmer associations and Hluvukani to identify individuals with unresolved participation issues and ensure, at minimum, that all who were issued certificates are able to obtain the physical document.** The evidence across multiple GDs of persisting coverage gaps and inability to resolve concerns for at least some participants due to communications issues during the Pilot appears to have resulted in their unwitting exclusion from the Pilot’s potential documentation benefits. For Pilot participants with unresolved questions around their inability to have their land mapped or receive certificates for some of their land that was mapped, Pilot IPs should also conduct systematic outreach with each of the farmer associations involved in the Pilot to ensure the reasons for this are clearly understood and communicated back to members.

ANNEXES

ANNEX A: QUALITATIVE INSTRUMENTS

GROUP DISCUSSION AND KEY INFORMANT INTERVIEW DATA COLLECTION INSTRUMENTS AT FOLLOW-ON

RLBIP FOLLOW-ON PERFORMANCE EVALUATION

FGD – Introduction and Consent

The Moderator should read the following consent script prior to the start of the group discussion:

Hello and thank you for agreeing to talk with us. My name is [name of interviewer]. Together with me is [name]. We work with NORC at the University of Chicago, a research organization in the United States. The United States Agency for International Development (USAID) has hired us to conduct an independent evaluation of its RLBIP pilot project in Manhiça District, which is a partnership with Illovo/Maragra that mapped and documented land rights in some of the rehabilitated blocks in this area.

The aim of this discussion is to learn about your experiences with this project, and on land and land-based investment opportunities, such as farming sugarcane as an outgrower. Our role here is to ask questions and listen to your opinions and experiences. We will be recording this discussion so that we can make sure we accurately note what you are telling us, and not forget anything that was said. Your identity will be kept confidential, and it will not be possible for you to be identified in our study report. If you would prefer, we take notes and not use the recorder, please let us know. Please note that there are no “right” or “wrong” answers in this discussion. We would like everyone to share their experience and give feedback, either positive or negative. We ask that everyone here respect each person’s privacy and confidentiality, and not repeat what is said during this discussion. But please remember that other participants in the group may accidentally share what was said.

Your participation is completely voluntary, and you can choose to not answer any question or stop participating at any time. You are not obligated to answer any question that you are not comfortable with. This discussion will last approximately 1 hour. The information you give will be stored safely for the duration of the project and shared anonymously with USAID.

If you have any questions about the study, you may contact ____, on this phone number: ____

Do you have any questions for me before we start?

[START THE RECORDER TO GET VERBAL CONSENT]

Do you agree to participate in today’s discussion?

[IF YES, CONTINUE DISCUSSION]

May we begin?

[Facilitator: Remember to fill out the FG participant form and note-taking form for each GD conducted].

GD Participant Registration Form:

Focus Group Respondent Category: <input type="checkbox"/> Men farmer association members <input type="checkbox"/> Women farmer association members <input type="checkbox"/> MIX of the above	USAID Pilot Phase: <input type="checkbox"/> Phase I (2017-2018) <input type="checkbox"/> Phase II (2018-2019)	Moderator: _____ Note-taker: _____ Start time: ____ : ____ AM/PM (circle one) End time: ____ : ____ AM/PM (circle one)
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USAID Pilot Block name: ____ Munguine South / North ____ Cambeve ____ Manhica Municipality / Martins ____ Palmeira North/Centre / South ____ Tanginga North / South

Locality Name: _____ **Date: SEPT** Day: _____ Year: **2022**

Participant	Main Occupation (farmer, shopkeeper, teacher, etc)	Gender (M/F)	Age	Marital Status (Married, Single, Widowed, Divorced)	Education level completed	# of parcels held in block (#)	Sugarcane outgrower? (Y/N)	Has Hluvukani Cooperative- issue certificate of land rights? (Y/N)
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

Comments on any aspect of the GD: _____

GD PROTOCOL, FOLLOW-ON DATA COLLECTION: RLBIP PE

This guide should be used for all GD respondent categories.

We would like to talk with you about your experiences with [Illovo/Maragra and USAID Pilot project] to map and document land rights here in [Project block], implemented during 2017-2019.

1. Do you remember this [USAID Pilot] project? By what name do you know this project?
2. Can you briefly describe what it did?

A. PROJECT PARTICIPATION AND OUTPUTS ACHIEVEMENT

Land Mapping and Certification of DUAT rights through the Cooperative

1. How many people here in the group had individual parcels of land that you use here in this block mapped and verified through the [USAID pilot project], during any of the years 2017 through 2019? (May I see a show of hands?)
 - a. *Probe:* Were all of the parcels that you use in this block mapped, or only some of them? Why?
 - b. *Probe:* Was everyone who wanted to participate able to, or were there some people who have land in this block who were not able to participate in having their land mapped? Why?
 - c. *Probe:* Did you encounter any challenges with respect to your participation in the land-mapping and verification activities? What are some examples? How were these resolved?
 - i. *Follow-up for any part of ongoing challenges or issues mentioned:* Did you follow-up with anyone for help with that? Do you know who to contact to get more clarification or information on that issue?
2. How many people here in the group received a certificate of your DUAT rights to your land in this block, issued by Hluvukani cooperative? (May I see a show of hands?)
 - a. *Probe:* When did you receive this document [YEAR]?
 - b. *Probe:* Was everyone who wanted to receive this document able to? If no, why not?
 - c. *Probe:* Did you encounter any challenges with respect to receipt of this cooperative-issued certificate? What are some examples? How were these resolved?
 - i. *Follow-up for any challenges or issues mentioned that are still ongoing (not yet resolved):* Did you follow-up with anyone for help? Do you know who to contact to get more information or help with that issue?
 - d. *Follow-up for participants from Phase I blocks (Munguine South, Cambeve, Manhiça Municipality, Martins, Tanninga) who did not choose to participate and receive the document until Phase II, in 2019:* What are the main reasons you decided to wait to have your land mapped and obtain the cooperative-issued certificate? Were you satisfied with the process? Do you think you have benefited differently from those who obtained the certificate earlier, in 2017-2018?
3. Now I would like to talk about formal DUAT titles for land that are issued by government of Mozambique. Do you see any differences between the land certificate issued through Hluvukani and the formal DUAT title issued through the government? (please explain)
4. In your view, is the cooperative-issued certificate sufficient for you to defend your land rights? Why or why not?
5. To what extent do you continue to interact with Hluvukani Cooperative regarding your certificate

or land rights in this block, in the years since you received the land certificate?

- a. Have any of you encountered a need to make changes to your certificates? If yes, what types of changes would you like to make, or have you made already?
- b. Do you know who to contact to make updates to the certificates, if you would like to?
- c. Are there any needs or support you would like to receive from Hluvukani but have not been able to, related to the land certificates? Please give some examples.

Main Benefits, Participation Challenges and Unanticipated Effects

6. What are your overall perceptions of the USAID pilot activity? What are the main benefits you have experienced to date as a result of obtaining the land certificate from Hluvukani Cooperative?
7. Did you experience any negative results that you did not expect, as a result of having your land mapped and receiving a certificate of your land rights from Hluvukani Cooperative? Please explain.
8. Are there any members of your farmer association who chose not to participate in the USAID pilot at all? Was this common or uncommon? What do you think were the main reasons why?
 - a. Is there anyone here in this group who chose not to participate? Can you share with us some of the reasons why?

B. LAND RIGHTS KNOWLEDGE AND TENURE SECURITY

In previous visits, we learned about some of the common types of disputes over land in this block, the different ways they are sometimes resolved, and different types of challenges for men and women who have land here. Now we would like to discuss a bit more with you on issues of tenure security over land that you use here.

1. Did any of the Pilot activities help to improve your knowledge on land rights? Please explain. Does anyone have examples you can share?
2. Are you comfortable leaving your land in this block unfarmed (fallow), or being away from your land for a long period of time, without worrying that someone else may try to claim it? (*May I see a show of hands?*)
 - a. *Probe:* For how many months/years would you feel comfortable doing this? If you are not comfortable doing this, what are the reasons why?
 - b. *Probe:* Has your views on this changed since you received the cooperative-issued certificate? Why or why not?
 - c. *Additional follow-up if there are some individuals in the group who did NOT receive a cooperative-issued certificate:* For those of you here who did NOT receive a cooperative-issued certificate for land in this block, do you agree with what is being said, for your own parcels? Do you have anything else to add?
3. Do you think the cooperative-issued certificates can help to protect land that you use here in this block from encroachment by others in your community, including extended family members or others within the community?
 - a. *Probe:* Why or why not? Can you give me some examples?
 - b. *Probe:* What about encroachment by outsiders to this area (Mozambican or foreign)?
 - c. *Probe:* Is the situation different for women land users and men? How?
4. Are there any types of land disputes or land-related challenges that you think the cooperative-issued certificate could not help with?
 - a. *Probe:* For what types of threats or challenges? Why?
 - b. *Probe:* Is the situation different for women land users and men? How?

- c. *Probe:* What are the main types of challenges that you continue to experience related to your land?
5. Have you experienced any changes in land services or support provided by local government authorities, as a result of the USAID Pilot? If yes, what types of changes and what do you think are the reasons why?

C. TARGETING AND INCLUSIVENESS

1. Do you think the right people were selected to participate in this project? Why?
 - a. *Probe:* Were women able to participate in the same way as men?
2. Do you think the most important land issues were addressed through this project?
 - a. *Probe:* Are there any other land challenges or land-related issues that you think the USAID Pilot should have addressed?

D. INVESTOR / COMPANY ENGAGEMENT, PARTICIPATION IN (SUGARCANE) OUTGROWER OPPORTUNITIES AND OTHER ECONOMIC ACTIVITIES

As the last part of our discussion, we would like to talk about your experiences with the Maragra sugar estate, and any ways that the USAID Pilot activities may have helped you to expand your economic activities.

1. Has the Cooperative-issued land certificate helped you to use your land to increase your income or economic situation in any ways (some potential examples: your farming activities, renting out land, obtaining a loan, engaging in sugarcane outgrowing)?
 - a. *Probe:* If no, why not? What are the main challenges you face?
 - b. *Probe:* If yes, in what ways? Can you give me some examples?
 - c. *Probe:* Is the situation different for women land users and men? How?
2. How many people here in this group are participating as a sugarcane outgrower for Maragra, through an individual contract (not together with other members of your farmer association on collective association land)? Since when did you obtain your contract? How many sugarcane harvests have you had so far?
 - a. *Follow-Up:* What benefits have you received to date as a sugarcane outgrower for Maragra? What sorts of benefits do you expect to receive in future?
 - b. *Follow-up:* Did anyone here need to show your cooperative-issued certificate to anyone, as part of the process to obtain your outgrower contract with Maragra?
3. Did the cooperative-issued certificates help members of your farmer association to become outgrowers with Maragra collectively (not through individual contracts)? Why or why not?
 - a. *Probe:* How, specifically, did the certificate help your farmer association to obtain a collective outgrower contract with Maragra?
4. Has anyone here in this group chosen to aggregate their land with other members of your farmer association, since receiving the cooperative-issued certificate? (*May I see a show of hands*)
 - a. For those who have done this:
 - i. What were the main reasons why?
 - ii. What benefits do you expect to receive or are you already receiving? Is everyone benefitting equally?
 - iii. Have you experienced any land-related or other challenges with this? If yes, how are you resolving those challenges.
5. For those who are not engaging as an outgrower with Maragra, what are the main reasons why?

Can you give us some examples of the challenges you face?

- a. *Probe:* Do you think women are more challenged to become outgrowers than men? Why or why not?
- b. Is anyone participating as an outgrower with a different company besides Maragra?
6. Are you aware of any process to obtain help or resolution from Maragra related to land issues or complaints here in this block? [relates to the grievance mechanism established by the Pilot]
 - a. Has anyone sought support from Maragra for help on land issues? If yes, what was your experience? Were you able to get resolution for your issue?
7. Have you had any changes in how you engage with Maragra as a result of any of the USAID Pilot activities? In what ways? If not, why?
8. Did the cooperative-issued certificates help individuals to become outgrowers with Maragra? Why or why not?
 - a. *Probe:* How, specifically, did the certificate help you?

E. WOMEN'S EMPOWERMENT

1. For those who received the cooperative-issued certificate for land solely in your name (not together with your spouse or any other family members), has anyone in this group experienced any negative consequences as a result of having the cooperative-issued land certificate solely in your name?
2. Has receipt of the cooperative-issued certificates changed or improved any of the challenges that women face around owning land, getting access to land, or making decisions about land?
 - a) If yes, how? What do you think are the reasons for those changes?
 - b) If no, why not?
3. Has anyone here made any changes to the type of crops that you grow, or other changes to your land, as a result of receiving the cooperative-issued land certificate?
 - a) *Probe:* What types of changes did you make? Has your income improved as a result of those changes?
 - b) *Probe:* If no changes, what are the main reason why you have not made any changes on your land since receiving the cooperative-issued land certificate?

F. CONCLUSION

We've learned a lot from you and thank you for discussing these issues with us today. Before we leave, is there anything else you would like to add about the project that we didn't already discuss, or would like to ask us?

KEY INFORMANT INTERVIEW PROTOCOLS

RLBIP PERFORMANCE EVALUATION, FOLLOW-ON DATA COLLECTION

Key Informant Interview Sample

Evaluation Sample	2022 Follow-On (Targets)
KIIs conducted	15-20 KIIs in total, targeted as: <ul style="list-style-type: none">• 6-8 farmers association leaders• 2-4 farmer cooperative leaders from Hluvukani• 3-4 community leaders• 2-3 Illovo/Maragra Pilot liaisons• 2-3 Terra Firma local implementing partner staff

KII - INTRODUCTION AND CONSENT

Prior to all KIIs, the following consent statement should be read out loud to each respondent:

Hello and thank you for agreeing to talk with us. My name is [name of interviewer]. Together with me is [name]. We work with NORC at the University of Chicago, a research organization in the United States. The United States Agency for International Development (USAID) has hired us to conduct an independent evaluation of its RLBIP pilot project in Manhiça District, which is a partnership with Illovo/Maragra that mapped and documented land rights in some of the rehabilitated blocks in this area.

The aim of this discussion is to learn about your experiences with this project and on land and land-based investment opportunities, such as farming sugarcane as an outgrower. Our role here is to ask questions and listen to your opinions and experiences. We will be recording this discussion so that we can make sure we accurately note what you are telling us, and not forget anything that was said. Your identity will be kept confidential, and it will not be possible for you to be identified in our study report. If you would prefer, we take notes and not use the recorder, please let us know. Please note that there are no “right” or “wrong” answers in this discussion. We would like everyone to share their experience and give feedback, either positive or negative.

Your participation is completely voluntary, and you can choose to not answer any question or stop participating at any time. You are not obligated to answer any question that you are not comfortable with. This discussion will last approximately 1 hour. The information you give will be stored safely for the duration of the project and shared anonymously with USAID.

If you have any questions about the study, you may contact ____, on this phone number: _____

(Read if more than one respondent in KII): We ask that everyone here respect each person’s privacy and confidentiality, and not repeat what is said during this discussion. But, please remember that other participants in the group may accidentally share what was said.

Do you have any questions for me before we start?

[START THE RECORDER TO GET VERBAL CONSENT]

Do you agree to participate in today’s discussion?

[IF THE RESPONDENT SAYS “YES”, CONTINUE DISCUSSION]

May we begin?

The following information should be collected for each KII respondent:

1	Name of respondent	
2	Type of respondent	<input type="checkbox"/> Farmer association leader <input type="checkbox"/> Farmer cooperative leader <input type="checkbox"/> Community leader <input type="checkbox"/> Maragra liason <input type="checkbox"/> IP staff member or extension agent
3	Agency or Institution (if applicable)	
4	Respondent title or position (if applicable)	
5	Locality name	
6	Date of interview	
7	Interview location	
8	Interviewer	
9	Note taker	
10	Start time	
11	End time	
12	Interview duration (minutes)	
13	Language of interview	

KII PROTOCOL #1: RLBIP PE

This guide should be used for KIIs with community leaders, farmer association leaders, and farmer cooperative leaders.

We would like to talk with you about your experiences with [Illovo/Maragra and USAID Pilot project] to map and document land rights here in [Project block], implemented during 2017-2018.

1. Do you remember this [USAID Pilot] project? By what name do you know this project?
2. Did you play any direct role in the implementation of this project? If yes, please describe.

A. PROJECT PARTICIPATION AND OUTPUTS ACHIEVEMENT

Land Mapping and Certification of DUAT rights through the Cooperative

1. Were you directly involved in activities to map individual parcels of land used here in this block, map and verified individual's rights to the land through the USAID pilot project, during any of the years 2017 through 2019? Did you have your own land parcels individually mapped as part of that process?
 - a. *Probe:* What were your experiences with this process?
 - b. *Probe:* Was everyone who wanted to participate able to, or were there some people who have land in this block who were not able to participate in having their land mapped? Why?
 - c. *Probe:* Did you encounter any challenges with respect to pilot land-mapping and verification activities by the project? What are some examples? How were these resolved?
2. Did you receive a certificate of your DUAT rights to land in this block, issued by Hluvukani Cooperative?
 - a. *Probe:* When did you receive this certificate?

- b. *Probe:* In your experience, was everyone who wanted to receive this document able to? If no, why not?
 - c. *Probe:* Are you aware of any challenges that people encountered with respect to receipt of this cooperative-issued certificate? What are some examples? How were these resolved?
3. Now I would like to talk about formal DUAT titles for land that are issued by government of Mozambique. Do you see any differences between the land certificate issued through Hluvukani and the formal DUAT title issued through the government? (please explain)
 4. Is the cooperative-issued certificate sufficient for you to defend your land rights? Why or why not?
 5. To what extent do you continue to interact with Hluvukani Cooperative regarding land issues or the certificates that were issued to members of your farmer association, in the years since the certificates were issued?
 - a. Have any of your members encountered a need to make changes to their certificates? If yes, what types of changes would people like to make, or have made already?
 - b. Do you know who to contact to make updates to the certificates?
 - c. Are there any needs or support you would like to receive from Hluvukani related to the land certificates, but have not been able to? Please give some examples.

Participation Challenges or Unanticipated Effects

6. Are you aware of anyone who has experienced any negative effects as a result of having their land mapped and receiving a certificate of their land rights from Hluvukani Cooperative? If yes, What types of negative effects? Please explain.
7. Are there any members of your farmer association or community who chose not to participate in the USAID pilot at all, to your knowledge? Was this common or uncommon? What do you think were the main reasons why?

ADDITIONAL QUESTIONS FOR FARMER ASSOCIATION LEADERS:

8. How many members are in your farmer association, approximately?
9. Did men and women participate equally in the USAID Pilot activities?
 - a. *Follow-Up:* If no, What do you think were the reasons for that?

B. LAND RIGHTS KNOWLEDGE AND TENURE SECURITY

In previous visits, we learned about some of the common types of disputes over land in this block, the different ways they are sometimes resolved, and different types of challenges for men and women who have land here.

1. Do you think the cooperative issued certificates will help to protect the land rights of people who have land in this block, over time?
 - a. *Probe:* In what ways? Against what types of threats?
 - b. *Probe:* Are there any types of land disputes or land loss risks that you think this certificate could not help with? Why?
 - c. *Probe:* Is the situation different for women land users and men? How?
2. In your experience, have the cooperative-issued certificates helped to expand people's income or their economic opportunities for people in this block?
 - a. *Probe:* Why or why not?
 - b. *Probe:* In what ways? Can you give me some examples?
 - c. *Probe:* Is the situation different for women land users and men? How?

3. In your view, what are the biggest challenges that continue to exist with respect to land rights and use of land in this block?
 - a. *Probe:* Are these challenges different for women land users and men? If yes, how? What are the reasons for this?
4. Have you experienced any changes in land services or support provided by local government authorities, as a result of the USAID Pilot activities? If yes, what types of changes and what do you think are the reasons why?

C. TARGETING AND INCLUSIVENESS

5. Do you think the right people were selected to participate in this project? Why?
 - a. *Probe:* Were women able to participate in the same way as men?
6. Do you think the most important land issues were addressed through this project?
 - a. *Probe:* Are there any other land challenges or land-related issues that you think the USAID Pilot should have addressed?

F. INVESTOR / COMPANY ENGAGEMENT, PARTICIPATION IN (SUGARCANE) OUTGROWER OPPORTUNITIES AND OTHER ECONOMIC ACTIVITIES

7. We are interested to learn about the ways that the cooperative-issued certificate can help individuals to become outgrowers with Maragra (not as collectives through the association, but through individual contracts). In your opinion, has this certificate helped farmers to become individual outgrowers for Maragra? Why or why not? If yes, what are some examples of specific ways the certificate helped with this?
8. For those who are not engaging as an outgrower with Maragra, what are the main reasons why? Can you give us some examples of the challenges faced, or other reasons, here in this block?
 - a. *Probe:* What are the main requirements for participation?
 - b. *Probe:* Do you think women were more challenged to participate than men? Why?
9. Do you think the USAID pilot project activities and the project-issued certificates will make it easier for people to become outgrowers for Maragra in the future? Why or why not?
 - a. *Follow-up:* Do you yourself have an individual outgrower contract with Maragra? Since when? How many harvests have you had so far? Did you need to show or provide a cooperative-issued certificate to anyone, in order to obtain this outgrower contract?
10. Have members of your farmer association chosen to aggregate their land with other members, to receive a collective outgrower contract with Maragra?
 - a. *Follow-Up:* If yes, what motivated your association members to do this?
 - b. What benefits do you expect to receive, or already receiving, as a result of consolidating your land in this way? Is everyone benefitting equally?
 - c. Have you experienced any challenges related to this? If yes, how are you resolving those challenges?
11. Are you aware of any process to obtain help or resolution from Maragra related to land issues or complaints here in this block? [relates to grievance mechanism]
 - a. Has anyone sought support from Maragra for help on land issues? If yes, what was your experience? Were you able to get resolution for your issue?
12. Have you had any changes in how you engage with Maragra as a result of any of the USAID Pilot activities? In what ways? If not, why?

G. WOMEN'S EMPOWERMENT

13. In your view, has receipt of the cooperative-issued certificates changed or improved any of the challenges that women face around owning, getting access to, or making decisions about land?
 - a. If yes, how? What do you think are the reasons for those changes?
 - b. If no, why not?
14. Have you seen any negative consequences that women may have experienced as a result of obtaining a land certificate from Hluvukani? Please explain.

H. CONCLUSION

Thank you for discussing these issues with us today. Is there anything that you want to add, or would like to ask us?

KII PROTOCOL #2: RLBIP PE FOLLOW-ON

This guide should be used for KIIs with Maragra liaisons and implementing partner staff.

We are here to talk with you about your experiences with the USAID Pilot project to map and document land rights in several floodplain blocks around the Maragra estate, which took place in two phases during 2017-2018, and 2018-2019.

1. **[for Maragra liaisons and other non-IPs only]** Please briefly describe your main responsibilities with Maragra and/or the EU project to provide support for sugar cane outgrowing in this area. For how long have you held this position?
2. Please describe your main roles or responsibilities with respect to Phase II activity implementation for the Pilot.

PROJECT IMPLEMENTATION AND OUTPUTS ACHIEVEMENT

Land Mapping and Certification of DUAT rights through the Cooperative

1. Were there any major differences in how the activity implementation took place during Phase II relative to Phase I, for example in terms of sensitization, knowledge sharing, parcel mapping and/or certificate issuance, and so on? Please explain.
 - a. Did you encounter any key differences with respect to land issues and parcel documentation in the Phase II blocks relative to the Phase I blocks? Activity interest and participation by land users in the floodplain areas?
 - b. Are there any reasons to expect that that Phase II participants might have benefitted differently from Phase I participants? Please explain.
 - c. What key challenges did the Phase II implementation face, if any?
2. To what extent does Terra Firma continue to interact with Hluvukani Cooperative and/or individual farmer associations regarding land issues or the certificates that were issued, in the years since the Pilot activities concluded?
3. What expectations did Terra Firma have regarding Hluvukani's administration of the database of certificate holders and pilot participants after Pilot end?
 - a. What support has been provided to Hluvukani to date to enable them to conduct those responsibilities?
 - b. What activities or support is most needed at this stage to help strengthen the capacity for Hluvukani to conduct those intended responsibilities over the longer term?

4. Is Terra Firma planning or involved in any additional efforts to support land rights and documentation for land users in the floodplain areas, since the conclusion of the Phase II work?

Participation Challenges and Unanticipated Effects

5. Now that the cooperative-issued certificates have been in use for some years, are there any types of land disputes that you think the cooperative-issued certificates are less able to help with? Why?
6. Are you aware of any negative effects that some people may have experienced as a result of having their land mapped and receiving a certificate of their land rights from Hluvukani Cooperative? If yes, What types of negative effects? Please explain.
7. Have you experienced any changes in how **local government authorities** in the area approach or support land issues, including land disputes, as a result of the USAID Pilot?
 - a. Probe: What types of changes and what do you think are the reasons why?

INVESTOR COMPANY ENGAGEMENT AND PARTICIPATION IN (SUGARCANE) OUTGROWER OPPORTUNITIES

8. To what extent have the cooperative-issued certificate helped individuals to become outgrowers with Maragra, in your view? What are the reasons why or why not?
 - a. Probe: Have the cooperative-issued certificates or other aspects of the Pilot activities helped to expand economic opportunities for land users in the floodplain blocks, in other ways, if at all? Why or why not?
9. What activities or support did the Pilot provide with respect to establishing a grievance mechanism by which land users in the floodplain blocks could obtain help from Maragra or others with respect to land issues or complaints? [relates to grievance mechanism]
 - b. What were the key challenges the pilot faced in setting up a grievance mechanism?
 - c. If you were to redesign such an activity today, what aspects would you change to potentially improve the outcomes (with respect to approach, functioning, intended linkages, or any other element)?
10. What were the main constraints or challenges that may have limited the potential for the pilot project to achieve its objectives on:
 - a. Strengthening tenure security and reducing land conflicts for land users in the floodplain blocks.
 - b. Expanding economic opportunities for land users in the floodplain blocks.
Follow-up Probe: How could these be improved on in future?
11. Do you have any general recommendations or comments to help improve a similar land programming effort in future? What are important next steps or needed activities still to support land rights in the area around Maragra?

CONCLUSION

Thank you for discussing these issues with us today. Is there anything that you want to add, or would like to ask us?

ANNEX B: CATI SURVEY INSTRUMENT

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MODULE A. METADATA AND ADMINISTRATIVE DATA

	FIELD	QUESTION	RESPONSE OPTIONS
A1	start_time	Survey start time and date	Auto-fill
A2	end_time	Survey end time and date	Auto-fill
A3	attempt_date	Date and time of attempt	Auto-fill
	enum_name	Enumerator name	1=[Enumerator 1 Name] 2=[Enumerator 2 Name] 3=[Enumerator 3 Name] 4=[Enumerator 4 Name] 5=[Enumerator 5 Name] 6=[Enumerator 6 Name] 7=[Enumerator 7 Name] 8=[Enumerator 8 Name] 9=[Enumerator 9 Name] 10=[Enumerator 10 Name] 11=[Enumerator 11 Name] 12=[Enumerator 12 Name]
A4	unique_id	Unique ID from sample spreadsheet	Integer
A6	Survey_status1	Current attempt number for this respondent	1-10
	Survey_status2	Result of contact attempt	1. Survey completed 2. Incomplete, call back 3. Incomplete, cannot finish 4. Refused to participate 5. Answered the phone, correct respondent is not available during data collection period or is deceased 6. Answered, but respondent is not known 7. Numbers work but no answer (rings/connects to a phone or voice mail) 8. No numbers work (do not ring/do not connect to a phone) 9. Interview not completed due to language barrier 10. Other (specify)
A7	resp_conf	Hello. My name is _____ and I work with Intercampus, a Mozambiquan research company. We are currently undertaking a survey to learn more about USAID's DUAT assignment program in Manhiça District. I'd like to speak to [respondent's name from sample]. Is [respondent's name from sample] available now?	1. Yes, respondent is available (Interview will continue) 2. No, desired respondent is not available (Choose appropriate disposition code) 3. No, respondent is unknown, unavailable, or deceased (End call; Choose appropriate disposition code)
A8			

MODULE B. INTRODUCTION AND CONSENT

FIELD	QUESTION	RESPONSE OPTIONS
B0	start_mod_b	System to record start time and date for module
B1	consent	<p>Hello. My name is _____ and I work with Intercampus, a Mozambiquan research company. We are conducting a survey to learn more about USAID's DUAT assignment program in Manhica District. This was a partnership with Illovo/Maragra and to map and document land rights in some of the floodplain areas near the Maragra sugar estate.</p> <p>This interview will last approximately 15 minutes. Your participation is voluntary, and you can choose to not answer any question or stop participating at any time without penalty. In addition, you have the right to request that your answers be deleted at any time.</p> <p>At the end of the study, we may share the data with USAID or others outside the study team. Before sharing the data, we will remove all details that could be used to identify you.</p> <p>We would like to record this interview, so we can ensure we have noted your responses accurately. We will not share this recording with anyone outside of the study team.</p> <p>If you have any questions about the study, you may contact [NAME], on this phone number: [NUMBER]</p> <p>B1. Do you agree to participate in this survey?</p>

MODULE C. RESPONDENT INFORMATION AND USAID PILOT PARTICIPATION

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
C0	start_mod_c	System to record start time and date for module	
C1	gender	<p>1=Male</p> <p>2=Female</p> <p>97=Non-binary</p> <p>999=Refused to answer</p>	
C2	marital	<p>1=Single / never married</p> <p>2=Married</p> <p>3=Divorced / separated</p> <p>4=Widowed</p> <p>5=Living together / cohabitating</p> <p>888=Don't know</p> <p>999=Refused to answer</p>	
C3	age	<p>888=Don't know</p> <p>999=Refused to answer</p>	Enter age in years
C4	know_pjt	<p>1=YES</p> <p>0=NO</p> <p>888=Don't know</p> <p>999=Refused to answer</p>	

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
	near Maragra estate. This project was implemented during 2017-2019. Do you remember this USAID DUAT assignment program?		
C5	farm_assoc Are you a member of a farmer's association?	1=YES 0=NO 888=Don't know 999=Refused to answer	
C6	has_land Do you have any land in any of the floodplain areas?	1=YES 0=NO 888=Don't know 999=Refused to answer	
C7	parcel_block What is the name of the floodplain block where your parcels are located? (select multiple)	1=Cambeve 2=Manhiça Municipality 3=Martins 4=Munguine North 5=Munguine South 6=Palmeira North 7=Palmeira Centre 8=Palmeira South 9=Taninga North 10=Taninga South 11=Pateque Bobole 97=Other (specify): 888=Don't know 999=Refused to answer	Ask if C6 =Yes
C8	particip Did you participate in the USAID project to map land and issue certificates confirming land rights in floodplain areas? Participating can mean, for example, that you only acted as a witness for a family member or neighbour.	1=YES 0=NO 888=Don't know 999=Refused to answer	
C8.1	particip_no Why didn't you participate in this project?	1=Was not aware of project 2=Was not present during mapping 3=The project did not reach my area 4=Was not eligible due to ongoing land dispute 5=Was not interested 6=Wanted to wait and see other people's experiences first 97=Other: [short answer text] 888=Don't know 999=Refused to answer	If C8 = NO
C8.2	particip_yes Did you have any individual parcels of land that you use in the floodplain block(s) mapped and verified through the USAID project, since May 2017?	1=YES 0=NO 888=Don't know 999=Refused to answer	
C8.3	nomap_rsn What is the main reason you did not have any of your parcels of land in the block(s) mapped through the USAID project?	1=Was not present during mapping 2=The project did not reach my area 3=Was not eligible due to ongoing land dispute 4=Was not interested 5=Wanted to wait and see other people's experiences first	If C8.2 = NO

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
		97=Other: [short answer text] 888=Don't know 999=Refused to answer	
C9	certif	Did you receive a certificate of your DUAT rights for land you use in the floodplain?	1=YES 0=NO 888=Don't know 999=Refused to answer
C9.0	certif_from	Who did you receive this from?	1=Hluvukani/farmer association 97=Other (specify) 888=Don't know 999=Refused to answer <i>If C9=YES</i>
C9.1	certify_no	Why did you not receive a certificate?	[open-ended responses] <i>If C9=No</i> <i>Short open-ended</i>
C9.2	certif_year	What year did you receive this certificate?	Year: (add all for selection) 888=Don't know 999=Refused to answer <i>If C9 = YES</i>
C9.2	certif_year_confirm	Do you remember if you received this certificate before 2019 or from 2019 onward?	1=Before 2019 2=From 2019 onwards 888=Don't know 999=Refused to answer <i>If C9.2=888</i>
C10	want_update	Since receiving the certificate, have you wanted to make any changes or updates to it?	1=YES 0=NO 888=Don't know 999=Refused to answer <i>If C9=YES</i>
C11	update_type	What type(s) of changes would you like to make? (select multiple)	1=Change primary title holder 2=Add family member(s) 3=Expand land boundaries 97=Other: [short answer text] 888=Don't know 999=Refused to answer <i>If C10=YES</i> <i>Short open-ended</i>
C12	update_contact	Who would you contact if you wanted to make any changes to your certificate now or in future? (select multiple)	1=Hluvukani Cooperative 2=Municipality Government 3=Community Leadership 97=Other: [short answer text] 888=Don't know 999=Refused to answer <i>If C9 = YES</i>

MODULE D. LAND TENURE SECURITY

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
D0	start_mod_d	System to record start time and date for module	
D1	cert_diff	Do you see any differences between the land certificate issued by Hluvukani and a formal DUAT title document issued through the government?	1=YES 0=NO 888=Don't know 999=Refused to answer
D1.1	cert_diff_yes	What are the main differences, in your view? Please briefly explain.	888=Don't know 999=Refused to answer <i>If D1 = YES</i> <i>Short open-ended question</i>
D1.2	cert_diff_no	Why not?	888=Don't know 999=Refused to answer <i>If D1 = NO</i> <i>Short open-ended question</i>

	FIELD	QUESTION	RESPONSE OPTIONS	NOTES	
	D2	no_help	Are there any types of land disputes or land-related challenges that you think the Hluvukani-issued certificate could not help with?	1=YES 0=NO 888=Don't know 999=Refused to answer	
	D2.1	no_help_text	Against what types of threats?	[open-ended responses]	If D2 = YES Short open-ended question
	D2.2	no_help_type	Select all that apply based on the respondent's answer.	1=Inheritance dispute 2=Dispute with someone with a formal DUAT title 3=Dispute with local officials 4=Outside investors (Mozambican) 5=Outside investors (non-Mozambican) 6=Sale/transfer issue (non related to inheritance) 7=Mozambican Government 97=Other (specify) 888=Don't know 999=Refused to answer	If D2 = YES Enumerator selects corresponding responses from list (enumerator does not read responses to respondent)
	D2.3	no_help_why	Why do you think the Hluvukani-issued certificate could not help with this type of challenge?	888=Don't know 999=Refused to answer	If D2.2=1-97 Short open-ended question
	D3	land_disp	Have you personally experienced any land dispute on any individual parcel of land that you use in the floodplain block?	1=YES 0=NO 888=Don't know 999=Refused to answer	
	D3.1	land_disp_year	What year did this dispute begin? ENUMERATOR: Ask about the most recent dispute if the respondent mentions multiple disputes.	888=Don't know 999=Refused to answer	If D3 = YES Enter year
	D3.2	land_disp_resolve	Has the dispute been resolved?	1=YES 0=NO 888=Don't know 999=Refused to answer	If D3 = YES
	D3.3	land_disp_type	What type of dispute was this? (SELECT ONE) (Enumerator: Do NOT read response options.)	1=Boundary dispute with the user of a neighboring parcel 2=Dispute with another family member over right to use the land 3=Dispute with another community member over right to use the land 4=Dispute with an outsider over right to use the land 5=Dispute with a government authority 97=Other dispute (specify) 888=Don't know 999=Refused to answer	If D3 = YES Select one
	D3.4	land_disp_cert	Did the presence of the DUAT assignment program influence the resolution of this dispute?	1=YES 0=NO 888=Don't know 999=Refused to answer	If D3.2 = YES
	D4	know_help	Are you aware of any process to obtain help from Maragra if you have issues or complaints related to land?	0=NO 1=YES 888=Don't know 999=Refused to answer	
	D5	localgov_change	Have you experienced any improvements in the quality of land services or support that local	0=NO 1=YES 888=Don't know	

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
	government authorities provide in the years since the USAID DUAT assignment project?	999=Refused to answer	
D6.1	localgov_change_text	Please briefly explain your reply.	[open-ended responses] <i>Short answer</i>
D7	improve_knowledge	Did any of the project activities help to improve your knowledge on land rights?	0=NO 1=YES 888=Don't know 999=Refused to answer

MODULE E. OUTGROWING AND OTHER ECONOMIC OPPORTUNITIES; EMPOWERMENT

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
E0	start_module	System to record start time and date for module	
E1	grow	Do you currently grow sugarcane for Maragra?	1=YES 0=NO 888=Don't know 999=Refused to answer
E1.1	grow_type	Do you have an individual outgrower contract just for your parcel of land, or a collective outgrower contract together with other members of your farmer association?	1 = Individual outgrower contract; 2 = Collective outgrower contract 97=Other (specify) 888 = Don't know 999 Refused to answer <i>If E1 = YES</i>
E1.1.1	grow_type Oth	Other, specify	[open-ended responses] <i>If E1.1=97</i>
E1.2	grow_year	What year did your contract with Maragra begin?	888=Don't know 999=Refused to answer <i>If E1.1=1 or E1.1=2</i> <i>Add year</i>
E1.2.1	grow_year_confirm	Do you remember if you've had your outgrower contract for less than a year, 1-5 years, or more than five years (since at least October 2017)?	1=Less than 1 year 2=Between 1-5 years 3=More than 5 years 888=Don't know 999=Refused to answer <i>If E1.2=888 (Don't know)</i>
E1.3	docs	Were you asked to provide any of the following documents to obtain this contract with Maragra? (SELECT ALL THAT APPLY)	1=Government-issued identification card/BI/Ballot or birth certificate 2=Hluvukani-issued certificate of DUAT rights 3=DUAT title from government 4=Community ordained certification/Neighborhood declaration 5=None 97=Other (specify) 888=Don't know 999=Refused to answer <i>If E1.1=1 or E1.1=2</i> <i>Select all that apply</i>
E2	help_contract	To what extent did the land certificate issued through Hluvukani cooperative help you in any way to obtain an outgrowing contract?	1=Not at all 2=A little 3=A lot 888=Don't know 999=Refused to answer <i>if C9 (certif)=YES and E1.1=1 or E1.1=2.</i>
E3	increased_income	To what extent did the land certificate issued through Hluvukani cooperative help you to increase your income or	1=Not at all 2=A little 3=A lot <i>if C9 (certif)=YES</i>

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
	improve your standard of living in any way?	888=Don't know 999=Refused to answer	
E3.1	increased_income_text How did it help you increase your income or improve your standard of living?	[open-ended responses]	Asked if E3=2 or E3=3 Short open-ended question
E4	helped_women In your opinion, to what extent did the land certificate issued through Hluvukani cooperative help to reduce challenges that women may face around owning, using or benefiting from land in the floodplain blocks?	1=Not at all 2=A little 3=A lot 888=Don't know 999=Refused to answer	Ask to all survey respondents
E5	helped_women_text How did the certificates help? (Select all that apply)	1=Increased land security 2=Protected land from other family members 3=Improved productivity 4=Access to outgrowing contract 97=Other (specify) 888=Don't know 999=Refused to answer	Asked if E4=2 or E4=3 Short open-ended question
E6	best_benefit What is the most important benefit you have received as a result of the Hluvukani-issue land certificate, if any?	[open-ended responses] 777=No benefits to date 888=Don't know 999=Refused to answer	Short open-ended response Ask to all survey respondents
E7	lose_land The next question will ask how secure you feel about your land. To be clear, the purpose of our work is to learn about your experiences with the USAID DUAT Assignment project, so future programs can address issues in this area. In the next 5 years, how likely do you think it is that you could lose the right to use land you have in this floodplain area, against your will? (Enumerator: Read answer choices and note respondent response)	1=Impossible / would never happen 2=Very unlikely 3=Unlikely 4=Unsure/Don't know 5=Likely 6=Very likely 999=Refused to answer	Enumerator should read answer choices and then select respondent response
E7.0	lose_land_text Please tell me the reasons why you responded in this way?	[open-ended responses]	Short open-ended response
E7.1	lose_land_why Select all that apply based on the respondent's answer.	1=The owner/renter may ask me to leave 2=Disagreements with family or relatives 3=Death of a household member 4=Problems with my farmer association 5=Companies may seize the land 6=Other people or groups may seize the land 7=Lack of money or other resources needed to maintain this land 8=Government may seize this 9=Issues with local/customary authorities (e.g., officials/chiefs, elder) 10=Missing or inaccurate land records 11=Conflict	Enumerator selects corresponding responses from list (enumerator does not read responses to respondent)

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
		12=Difficulty of reclaiming land if I had to leave due to a natural disaster (e.g., flood) 13=Not worried about this 14=I have documentation of my claim to this land 97=Other, please specify 888=Don't know 999=Refused to answer	
E7.2	lose_land_react	Enumerator do NOT read: Did the respondent have a negative reaction to the previous questions regarding how likely they felt it was that they would lose their land?	1=YES 0=NO

MODULE F. CLOSING

FIELD	QUESTION	RESPONSE OPTIONS	NOTES
Note	This concludes our discussion. Thank you for your participation in this survey. Before we close, do you have any questions for me?		
F0	start_mod_f	System to record start time and date for module	
F1	reliability	Enumerator: On a scale of 1-5 where five is very reliable, how reliable was this respondent?	1=very reliable 2=somewhat reliable 3=both reliable and unreliable 4=somewhat unreliable 5=very unreliable
F2	enum_notes	Enumerator: Any additional comments?	[open-ended responses] <i>Open-ended, not required</i>

ANNEX C: FOLLOW-ON TEAM COMPOSITION

The evaluation team at follow-on consisted of the following NORC staff and independent consultants:

- Lauren Persha, Team Lead and Evaluation Specialist (NORC)
- Belmiro Nhamithambo, Evaluation Specialist and Local Coordinator (Local Consultant)
- Ron Wendt, Mid-level Evaluation Specialist (NORC)
- Ninar Taha, Research Analyst (NORC)
- CATI survey firm: InterCampus

The **Team Lead** has overall responsibility for all aspects of the evaluation, including providing technical leadership on all aspects of the evaluation, overseeing and coordinating the execution of the evaluation design, ensuring updated qualitative and quantitative instruments, oversight of qualitative and quantitative data analyses, lead report writing, liaising with USAID and ensuring the timely submission of deliverables.

Dr. Lauren Persha is a land tenure, evaluation, and livelihoods specialist with more than 15 years of experience designing and leading mixed qualitative and quantitative research and providing technical evaluation expertise across land tenure, smallholder agriculture, rural livelihoods, local institutions, and natural resource management and governance sectors. She has led multiple impact evaluations and mixed methods performance evaluations of cross-sectoral development projects, many of which integrate large-scale household survey data with qualitative data. Dr. Persha has extensive experience with qualitative research design and data collection to complement quantitative evaluation results, including approaches to enable gender-disaggregated impacts and understand how and why impacts differ for key vulnerable groups in each study context. Dr. Persha holds a PhD in Environmental Science from Indiana University and is currently a Principal Research Scientist at NORC at the University of Chicago. She is fluent in English and Swahili and has working proficiency in French.

The **Local Consultant** provides local context and subject matter expertise and is responsible for outreach to local farmer associations and cooperatives, liaising with Hluvukani, scheduling and conducting KIIs and GDs in local languages, and transcription and translation of qualitative transcripts from Changana or Portuguese to English. **Mr. Belmiro Nhamithambo** has been designing, managing, and implementing monitoring and evaluation systems and conducting project evaluations since 2007. He has experience on various projects including good governance, HIV/AIDS prevention, gender-based violence prevention, food security through nutrition and agriculture, orphan and vulnerable children, and natural disasters emergency response programs for various donors including USAID, IFAD, DANIDA, CIDA, DFID, IOM, MOFA, MCC, Danish Embassy, Oxfam Novib, and Erik Thune's foundation. Mr. Nhamithambo is responsible for qualitative data collection logistics, moderating focus group discussions and interviews in Changana or Portuguese, and translating and transcribing interviews and group discussions. Mr. Nhamithambo has an MBA from the Cela Open Institute in Madrid, Spain. He is fluent in Changana, English and Portuguese.

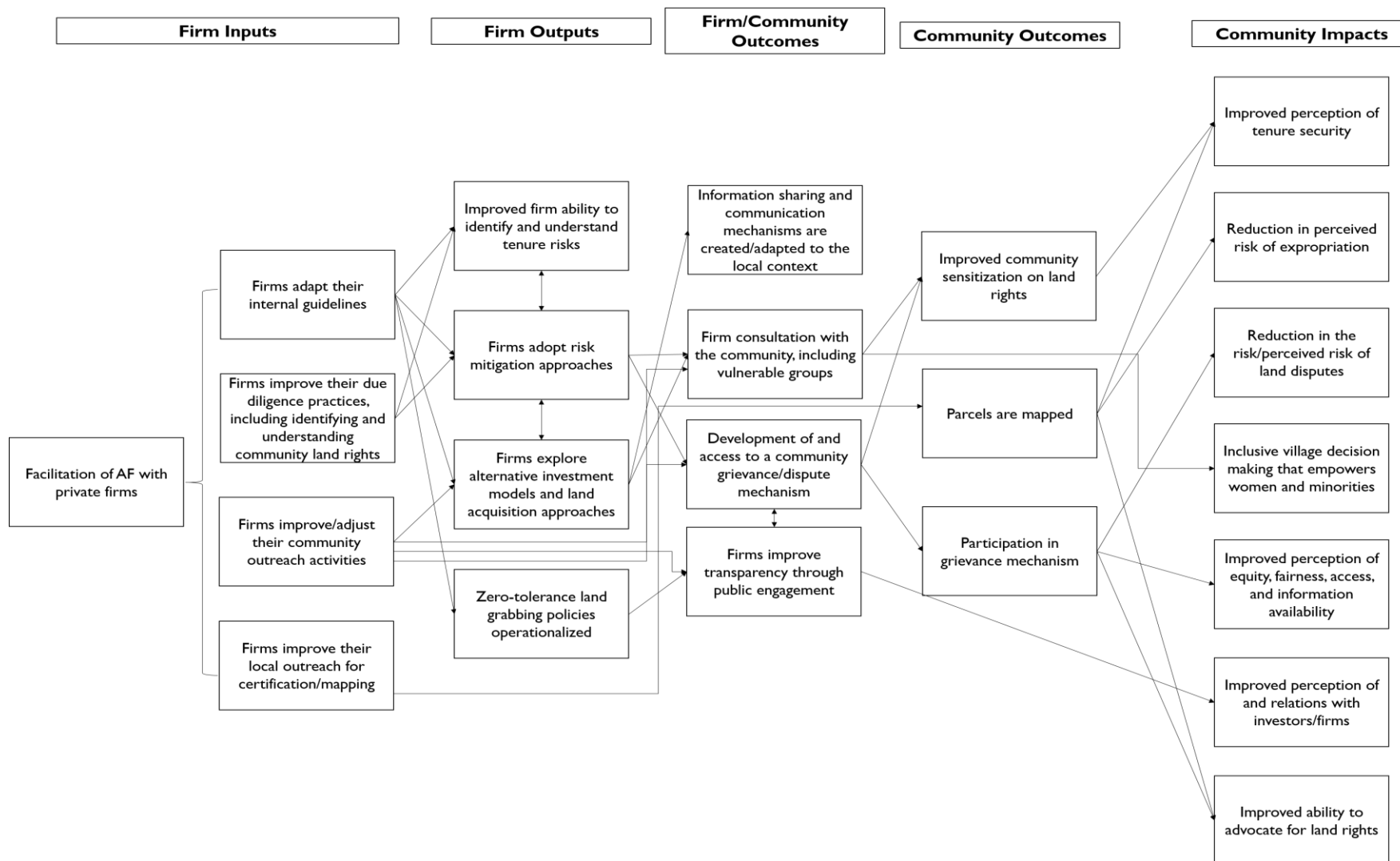
The **Mid-Level Evaluation Specialist** contributed to qualitative instruments and CATI survey updating, CATI sampling, qualitative and survey firm team training, providing remote oversight and quality monitoring of data collection activities and day-to-day oversight of the CATI survey firm and local consultant activities, developing qualitative codeframes, supporting coding and analysis of qualitative and quantitative data and contributing to final report writing. **Mr. Ron Wendt** has a decade of research and management experience for cross-cutting evaluations and studies on topics spanning democracy and governance, agriculture, WASH, land tenure and related development sectors. He is also

an experienced survey director and data collection methodologist for in-person and telephone surveys, where he leads aspects of data collection partner procurement, contracting and management, training and day to day oversight. Mr. Wendt holds a M.A. in International Affairs from Colombia University and is a Senior Research Director at NORC at the University of Chicago.

NORC **junior research staff** provided cross-cutting support during the evaluation preparatory phase, in-country data collection, qualitative coding and analysis, survey data analysis, and the production of reporting and dissemination products. **Ms. Ninar Taha** has experience managing multiple international qualitative and quantitative studies on topics in global health, education, agriculture, security and public opinion, and cross-cutting qualitative and quantitative coding and analysis skills. She holds a B.A. in Global Development Studies from the University of Virginia and is a Research Analyst at NORC at the University of Chicago. She is a native Arabic speaker and also has working proficiency in Portuguese and Spanish.

The **CATI survey firm** was responsible for translation, final programming and testing of the CATI survey, supporting in-country data collection approvals as needed, co-leading training of CATI survey enumerators, conducting survey pre-testing and piloting, and implementation of the survey data collection, raw data processing, and post-coding and translation of open-ended survey responses. **InterCampus** is a Maputo-based survey research firm with 15 years of experience conducting CATI and CAPI data collection in Mozambique.

ANNEX D: PILOT THEORY OF CHANGE²⁸



²⁸Source: Persha, L. and J. Patterson-Stein. 2019. *Final Evaluation Report: Performance Evaluation of the Responsible Investment Pilot in Mozambique*. USAID, Washington, DC.