



Land Governance in an Interconnected World

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EVIDENCE TO INFORM LIBERIA'S NEW LAND POLICY: EVALUATION FINDINGS FROM NAMATI'S COMMUNITY LAND PROTECTION PROGRAM

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Abstract

This paper presents midline results from a rigorous evaluation of the Community Land Protection Program (CLPP) in Liberia. CLPP supports communities to leverage community land documentation processes for positive intra-community changes, leading to enhanced local empowerment, resource governance, and livelihoods. The impacts of supporting communities to protect their community land remain largely unknown, and this study aims to fill the knowledge gap on the benefits of community land protection to inform future programming. The evaluation utilizes a mixed methods approach, including Difference-in-Difference regression and qualitative analysis, to investigate whether and how the CLPP increases community empowerment and improves governance of communal land in the short- to medium-term. We find that the CLPP has a significant impact on community governance. According to the evaluation's theory of change, these initial improvements will permit communities to reduce land conflicts, increase tenure security, and better protect the rights of vulnerable groups in the long-term.

Key Words: Communal property rights, Land Governance, Tenure security, Community land protection, Natural resource conservation

Introduction

Community land and natural resources provide an essential input into communities' social, political, and economic sustainability in developing countries, particularly in agrarian societies. Increased land demand and fast evolving norms of land governance pose an important question: how can communities protect and benefit from community land in the face of changing laws and increasing pressures on land? We study one possibility, the Community Land Protection Program (CLPP), in the West African state of Liberia, to better understand whether initial support of community management structures can empower communities to govern their most important natural resource in an effective and equitable manner. This paper presents midline results from a rigorous mixed methods evaluation of the CLPP in Liberia.

Since the late 1960s, several African nations have passed laws that recognize and support the central role of customary tenure in rural land administration and management. These include Botswana, Burkina Faso, Ghana, Mali, Mozambique, Namibia, Niger, Senegal, South Africa, Uganda, and the United Republic of Tanzania. In some instances, customary land rights have received the same standing as state-issued land rights and included the integration of customary rules and dispute resolution bodies into the national formal system (Wily 2000). This trend is also evident in Liberia, where nascent land reforms provide a potential legal framework for protecting community land.

Developed by the international legal empowerment organization Namati, the CLPP is a global program that seeks to empower communities to successfully protect their land rights through an international framework that bundles technical mapping and titling support, peace-building dispute resolution, and governance-strengthening initiatives to support communities to use national land laws to protect their customary lands. These activities begin with a series of community visioning, boundary harmonization, and governance improvement exercises, which are the subject of this mid-line evaluation. These interventions were delivered at the community level by the Sustainable Development Institute (SDI) in three rural counties in Liberia over the course of 12–18 months from 2016–2017.

This paper presents the results of a rigorous evaluation of the CLPP¹, estimating the effects of the CLPP on household and community beneficiaries for a set of outcomes across seven outcome 'families'. These include: Land and natural resource governance; Empowerment; Tenure security; Land conflict; Community land development and natural resource condition; Livelihoods; and Heterogeneous treatment effects for subgroups of interest (women, youth, poor, and members of minority groups).

¹ This evaluation is jointly funded by USAID, the International Development Research Centre (IDRC), and Namati.

The evaluation employs a mixed methods approach that analyzes quantitative and qualitative data sources from two waves of data collection to determine the CLPP impact across the study sample in Lofa, Maryland, and River Gee counties. Baseline data was collected prior to program commencement in 2014 and midline data was collected in 2017 approximately 10 months after the beginning of implementation, about two-thirds of the way through the program. The quantitative data sources include a panel dataset consisting of 683 household survey observations and 36 community observations, in addition to a cross-sectional dataset with 818 household survey observations and 43 community observations. Qualitative data sources include focus group discussions with women, youth, hunters, elders, and members of minority groups. On indicators for which panel data is available, Difference in Difference (DiD) estimation is used to determine the Average Treatment Effect (ATE) for households and for communities. Cross-sectional (midline only) fixed effects linear models and qualitative data are also used to confirm outcomes and elucidate mechanisms.

The impacts of efforts to support communities to protect their communally-held customary land remain largely unknown. The rights-based argument for formal recognition of customary tenure – according to which providing tenure security for collective legitimate landholders is an end in itself – is widely accepted. However, the instrumentalist argument – which justifies formal recognition of customary tenure as a means to achieve desired development objectives – is less clear. This evaluation fills this knowledge gap on the benefits of community land protection by comprehensively investigating the political, social, and economic effects of the CLPP model.

The paper is structured as follows: Section 1 provides background and context. Section 2 presents the theoretical framing for second-level certification. Section 3 described in detail the data collection and sampling methods used in the evaluation, as well as our analysis strategy. Section 4 describes our quantitative and qualitative results on primary and secondary indicators. Section 5 contextualizes our findings within the program theory of change. Section 6 discusses program implementation and policy implications that can be drawn from our results. Section 7 summarizes and concludes the paper.

Background

There were multiple causes of Liberia's 14-year civil war, which ended in 2003, including conflict over land and natural resource rights. This war unfolded within and in response to a land policy framework that permitted the state to transfer large areas of customary lands to private concessions and national parks, weakening community control of vital natural resources (USAID 2010). Liberia's post-war democratically-elected government has made a number of key reforms to the country's land tenure system that aim to address a number of the resulting inequalities and grievances. These include the development of a comprehensive new national Land Rights Policy, which was adopted by the government in 2013 and,

most recently, the development of a draft Land Rights Act² and other implementing legislation to realize the vision set forth in the Land Rights Policy. However, passage of the Act has since stalled.

The CLPP is a 12- to 18-month project that is funded by the United Kingdom's Department for International Development, and implemented in partnership with the Sustainable Development Institute (SDI) in Liberia. Since Liberia's land reform process began in 2009, Namati, the International Development Law Organization, and SDI have been assisting rural communities through CLPP to demarcate and protect their land and resources according to the process set out in the draft Land Rights Act (Knight et al., 2013). The communities participating in this evaluation are in Lofa, Maryland, and River Gee counties, shown in Figure 1.

The CLPP approach is based on the argument that a thoughtful and effective formalization process for community lands held according to custom may help to protect rural communities' land claims, livelihoods, and way of life; reduce conflict and instability in the long term; and foster endogenously driven community development (Knight 2010). To achieve this goal, the program promotes an integrated community land protection model that supports communities to protect their lands and natural resources, as well as to leverage the community land documentation processes to strengthen intra-community governance and accountability. The program consists of five components:

1. Community empowerment, including provision of legal education regarding rights and responsibilities in the context of decentralized land management;
2. Boundary harmonization and land conflict resolution, including boundary negotiation with neighbors (to define the limits of community land), boundary demarcation (GPS/surveying, planting boundary trees, signing memoranda of understanding), and comprehensive mapping of community land;
3. Strengthening good governance, with emphasis on strengthening the rights of women and marginalized groups by addressing intra-community power dynamics, including cataloguing, discussing, amending, and adopting bylaws for community land and natural resource management and electing a diverse, permanent, accountable governing body to manage community lands and natural resources;
4. Completing government land registration procedures for communal lands; and

² The Land Rights Act is expected to: 1) Allow communities to gain communal title for their collectively managed lands; 2) Formally vest land and surface natural resource ownership with communities, addressing heretofore ambiguity in the legal system; 3) Provide protections for landholders whose rights are extinguished through expropriation; and, 4) Recognize the full land ownership rights of communities in Liberia as equivalent to private land rights, regardless of whether the community has self-identified, established a legal entity, or holds a deed.

5. Preparing communities to prosper by teaching basic negotiation tactics, creating Community Action Plans, integrating livelihood supports, and supporting communities to regenerate local ecosystems.

While the foundational goal of the CLPP is to empower communities to protect their lands, as designed the program considers meaningful participation by all community members (including women, members of minority groups, etc.) during all program stages essential to reach this goal:

“The entire community must take part in the community land protection process for it to be successful. All community members, including women, men, youth, elders, traditional leaders, seasonal users and members of minority groups should be invited to all meetings and encouraged to participate and speak their minds.” (Namati CLPP Facilitator’s Guide)

As the Land Rights Act remains under review and a formal process for legal certification does not currently exist, CLPP’s documentation procedures for customary land have remained informal in Liberia and focused on the first three components: community empowerment, boundary demarcation and good governance.

Theory

From implementation and programming perspectives, CLPP operates under the assumptions that if:

- (1) Communities acquire knowledge of their legal rights, receive training and support on how to access those rights, resolve boundary disputes with neighboring towns, and demarcate the boundaries of their lands; and,
- (2) Communities agree on equitable and transparent community land and natural resource governance rules and elect diverse, representative community members to a land governance body.

Then:

- (a) Communities should feel more confident in their land tenure security;
- (b) Communities should be empowered to protect their rights to the community land;
- (c) Women and minorities should enjoy better protection of their rights and greater levels of participation; and,
- (d) Community resources should be used more efficiently, leading to increased productivity and development.

Accordingly, this evaluation of the CLPP tests these assumptions and outcomes, focusing on five broad inquiries:

- Whether and how the CLPP effectively strengthens the land tenure security of rural communities;
- Whether and how the CLPP improves perceptions of governance and increases local leaders' accountability;
- Whether and how training, mentoring, and technical support help communities to document their land and to codify rules (bylaws) to protect their community land and natural resource claims;
- Whether and how the program protects women's land rights and the land rights of marginalized groups (substantive and procedural); and
- Whether and how the program leads to conservation and sustainable natural resource use.

The effects of supporting communities to protect their community land remain unknown. There have been no rigorous studies on the relative efficacy of community land protection efforts (Lawry et al. 2014), although there have been rigorous studies on the ability of communities to resist deforestation pressures (Busch and Ferretti-Gallon 2017) and case studies on efforts to improve community governance, such as the previous qualitative assessment of the pilot of the CLPP in River Cess county, Liberia (Knight et al. 2013). This evaluation fills this knowledge gap on the benefits of community land protection by rigorously investigating the effects of the CLPP model on improving tenure security, local empowerment, resource governance, and livelihoods.

Previous research has focused on the economic effects of individual land titling programs and the positive returns that these programs have for household-level economic development (Galiani et al. 2010; Lawry et al. 2014). In contrast, this study explores the political, social, and economic effects at both the household and community level of protecting community land, including communal lands and individual farmland.

We incorporate a number of institutional, management, and governance indicators in our study that build on the seminal research on common pool resource governance by Ostrom (1990), as well as more recent work by Agrawal and Chhatre (2006) and Persha et al. (2011), measuring indicators related to local land governance institutions, the existence of land-related rules, monitoring and enforcement, and sanctioning of rule violations that draw from Ostrom's common pool resource governance theory and recent studies linking these aspects of land governance to forest condition (e.g., Gibson et al., 2005; Hayes, 2006; Chhatre and Agrawal, 2008). We also incorporate variables on the perceived effectiveness of these institutions, including household confidence about the capacity of community institutions to enforce land rights when disputed and household satisfaction with local leaders' land management.

The evidence on whether supporting private versus communal rights is better for women and other vulnerable groups is limited (Meinzen-Dick et al. 2017) and what does exist is mixed. Privatization and formalization of property may place constraints on women's right to property as women may lose access to informal or undocumented rights during the formalization process (e.g. Lastarria-Cornhiel 1997). Women's movements have also challenged customary property rights institutions that concentrate power in mostly male leadership structures while excluding women and other vulnerable groups (Tripp 2004). Studies of women's economic empowerment that tend to focus on intra-household dynamics (e.g. Doss 2005, 2012) cannot speak to what might happen to women's political, social, and economic position should an outside force seek to increase their property rights. While, there is some evidence that "push" centered norm change works more generally (Blattman et al. 2014; Cloward 2014; 2016), it is also possible that such efforts could have negative externalities.

Additionally, this evaluation has relevance for the broader question of the effectiveness of skills building, training, and technical support interventions by outside actors. While the CLPP aims to provide comprehensive support to communities so that they might protect their land, it does not provide specific material benefits in the form of cash loans or grants. As a result, this evaluation presents an additional test of the general hypothesis that skill-based interventions where elites aim to shift norms, as opposed to change incentives, can spur economic development.

Methodology

Following from the evaluation questions and program theory, our hypotheses focus around seven outcome 'families' of thematic groupings of expected program effects: land governance, community empowerment with investors, tenure security, land conflict, community land development and natural resource condition, and livelihoods. We also explore heterogeneous treatment effects by subgroups of interest, including women, members of minority groups, youth, and poor respondents. We test a series of hypotheses that link the expected effect of the program to outcomes in each family.

To understand how and why the CLPP changed attitudes, norms, and skills, we developed and pre-specified a set of indicators. All types of indicators (cross-sectional and panel) have been divided into four categories, ordered according to their importance for answering the evaluation's central questions:

- Primary indicators: First-order indicators used to assess program impact on outcomes;
- Secondary indicators: Additional indicators analyzed to further assess program impact;
- Mechanism indicators: Elucidate hypothesized mechanisms for change in key indicators; and,
- Context indicators: Provide additional information about conditions related to outcomes.

Our hypotheses, as well as the primary and secondary indicators for each outcome family, are listed below in Table 1. Data on these indicators measure and track changes at the household and community level across baseline and midline data collection. Baseline and midline data collection utilize four primary data collection instruments: (1) household survey, (2) leader survey, (3) focus group protocol for women, youth, hunters, members of minority groups, and elders, and (4) leader key informant interview (KII) tool. The community-level unit of analysis for the evaluation is the clan.

Heterogeneous Treatment Effects

This evaluation pays particular attention to how CLPP effects vary for key respondent characteristics that could be important modifiers of program effect: gender, age, membership in a minority ethnic or religious group, and socio-economic status. This analysis comprises the final outcome family—outcome family 7.

Our household sub groups of interest include:

- Gender (male respondents versus female respondents);
- Household baseline wealth status (lowest quartile vs. others);
- Age of respondent head at baseline (under 35 vs. others); and
- Minority status of respondent.

Survey Experiments

We also include four survey experiments in the midline survey and analysis. The experiments assess citizens' perspectives on the following key issues:

- Whether priming individuals to consider the sacred value of their property shifts their valuation of it;
- Whether support for new land policies is increased or decreased by an explicit focus on women's rights;
- Whether local versus national authorities are believed to be best able monitor investors who break laws meant to protect natural resources; and,
- Whether discussion of tenure security on communal land modifies perceptions about the Land Rights Policy and Land Right Act.

The experiments follow a priming/endorsement experiment logic whereby survey respondents are randomly divided into two groups during the survey. Each group receives one version of the experimental question set and differences between average group answers provide information about validity of the prime or the endorsement (as applicable) embedded in the experiment.

Sampling

At the time of baseline data collection, the research team designed specific guidelines for selecting the sample of households and community leaders within each town. Based on power calculations at the design stage, it was determined that 15 household heads would be selected in each study town for the household survey. Households for the household survey were randomly selected following a standard protocol that involved making a simple map of the community and selecting respondents based on the size of each “quarter” or neighborhood. At midline, we constructed a panel dataset of respondents by re-interviewing as many original respondents from baseline as possible at midline. If original household survey respondents could not be tracked, a replacement household was randomly selected from the immediate area around the household to be replaced.

Three community leaders were asked to complete the leaders’ survey in each town at baseline and again at midline. The midline leader survey also includes an open-ended qualitative module, which is discussed in more detail in the following sub-section. These leaders included the Town Chief, as well as the youth, women, and minority leader (if applicable) for a community. Selection of community leaders was relatively straightforward, as each community leader, or Town Chief, was automatically eligible for an interview. In addition to the Town Chief, the enumerators were instructed to ask for the most senior female leader and the minority leader for inclusion in the survey. These leaders were selected because they provide important information on women and minority group rights and participation, two key outcomes of the evaluation.

Three focus group discussions (FGDs) were conducted in each of the towns where data was collected at midline. Key sub-groups of interest for the FGDs included women, youth (men and women), members of minority groups (men and women), hunters (men), and elders (men and women). Women’s and youth groups were conducted in every town. The third subgroup was assigned based on the presence of sufficient members of minority groups or hunters at baseline.

Estimation Strategy

To rigorously assess the effect of CLPP, this evaluation adopts two statistical approaches at midline to estimate the average treatment effects (ATEs) on the outcome families described above: a difference-in-difference (DID) approach and a cross-sectional (midline only) fixed effects linear model. In addition to these statistical approaches, this evaluation also presents qualitative findings, preliminary results of several survey experiments included in the midline survey instrument, and context information from descriptive quantitative summary statistics. This plan for the midline analysis was pre-specified in a Pre-Analysis Plan that was drafted and registered with Evidence in Governance and Politics prior to the commencement of midline data collection.

First, we apply the DID approach to estimate causal effects using panel data. Our DID model estimates the treatment effect on the treated across household and community level indicators for each set of outcomes, controlling for a range of covariates. Since virtually all individuals who reside in treatment communities participated in the CLPP interventions, we do not assess the ITT (Intention to Treat). There are 683 panel household survey observations and 36 panel community observations. Given clustering, we prefer our model to the simplified difference in means estimator (Aronow & Middleton, 2013). Analysis of the quantitative and qualitative data at midline does not indicate that widespread spillover has occurred (we find little evidence of program steps occurring in control communities), and the evaluation team does not believe that there is a necessity for alternative calculations of the ATE.

Second, this evaluation uses the midline data to test whether treatment status predicts midline-only outcome variables at the household and community level, controlling for time invariant household and community characteristics. The cross-sectional outcome indicators are constructed from questions that were not asked at baseline. There are 818 midline household survey observations and 43 midline community observations. To account for clustering, robust standard errors are clustered at the level of intervention (the clan). Several town level characteristics were included as controls in the cross-sectional analysis. These town level controls are 1) key geospatial measures of community connectivity and access (distance to road in kilometers, distance to forestry or mining concession in kilometers), 2) presence of investor as reported by leaders, 3) presence of cell service as reported by enumerators, and 4) a treatment progress indicator (community has started boundary harmonization). Key household demographic characteristics were controlled for in the cross-sectional analysis.

Qualitative Analysis

Pre-specified qualitative data themes were coded from the KII and FGD transcripts. After the transcription of the qualitative audio files, the research team coded the qualitative transcripts according to the specified codes. The information is stored in a qualitative data collection matrix. The matrix has two parts: treatment communities and control communities.

To provide additional tests of the hypothesized links between the CLPP intervention and the outcomes of interest, the research team conducted a comparative analysis of the qualitative data. For each hypothesis, a specific mechanism linking the treatment to the outcome is specified, as well as the observable implications in the qualitative data.³

³ We wrote a short comparative case study of the situation in the treatment communities versus the situation in the control communities and make a case about whether there is sufficient evidence to confirm the pre-specified hypothesis. Where evidence of other mechanisms or additional variables of interest emerged during this comparative analysis, this is included in the large analysis of the project, but it is labeled as “exploratory.” This analysis was pre-specified in the Pre-Analysis Plan and its included Qualitative Pre-Analysis Amendment.

Limitations

The midline CLPP evaluation is subject to two primary limitations: (1) potential for selection bias, and (2) insufficient power to measure small to moderate treatment effects.

The research team originally designed this study as a randomized control trial involving 90 communities. However, funding constraints prompted SDI to reduce the number of treatment communities from 45 to 23 and to randomize the remaining treatment communities at a quadrant level versus community level. The reduced list of treatment communities was selected by SDI based on the following priorities:

- Level of interest: Assessed through previous efforts by community (2014 to 2015)—community has shown interest in the project, has started the process already by selecting community animators and an interim coordinating committee;
- On-the-ground challenges: Number of land related conflicts, degree of urbanization, rate of concessions;
- Accessibility: How easy is it for the team to reach a community by car, bike, and footpath;
- Clustering: How a group of treatment communities are clustered to magnify program benefits.

This methodology of reducing the treatment communities likely introduced some selection bias⁴. To mitigate the selection bias, we matched the remaining treatment communities with comparable control communities based on the same reduction criteria used by SDI and characteristics of interest. Moreover, in addition to baseline balance checks, the analyses of treatment effects were conducted with and without propensity score weighing with Mahalanobis distance calculation to ensure similarity on the individual and community demographic variables. The results are similar, providing evidence that differences in baseline variables are not driving the results.

Results

This section presents the findings on impacts of the CLPP based on the methodology described above.

Primary Findings

Three of the seven outcome families contained primary indicators, and the evaluation finds evidence that the CLPP produced expected results for many of these primary indicators. A table of abstracted results on primary indicators—which shows only the direction of impact and level of significance—is presented in Table 2; this table highlights basic patterns of findings across different outcomes and comparison groups.

⁴ Note that the initial groups of treatment and control communities in Maryland and River Gee counties were blocked into quadrants and then randomly selected, and that treatment sites were removed from the quadrants assigned to treatment and control sites were removed from quadrants assigned to control such that control communities remain a strong counterfactual for treatment communities' trajectory on the outcomes of interest.

Full details of the Average Treatment Effect (ATE) estimates for all significant indicators by outcome family are presented in Tables 3-5.

Land Governance

The evaluation finds compelling evidence that participation in CLPP is positively associated with perceptions of improved local land governance (Table 3). The results hold in the qualitative and quantitative data.

Comparing treatment and control communities, there is a significant increase in trust, satisfaction, perceived accountability, capacity, and transparency of leaders. Households report that leaders consult the community in land decision-making more often in treatment communities. For example, while the percentage of treatment households reporting that leaders consult the community *rose* 11 percentage points (from 60% to 71%), the percentage of control households reporting that leaders consult the community *fell* 12 percentage points (from 75% to 63%). Treatment households also have higher satisfaction with leaders. Over the same time, overall household satisfaction with leaders remained constant in treatment households but fell 11 percentage points (from 32% to 21%) in control households.

Households in treatment areas are more likely to express confidence in their leaders' ability to protect their forests, their ethical behavior, and in the clarity and fairness of their decision-making processes. At baseline 65% treatment respondents agreed that their leaders can protect their forests, and at midline this figure had risen 27 percentage points in treatment households to 92% (and remained constant in controls at 87%). In treatment households, reports that leaders do not take bribes increased 12 percentage points (from 60% to 72%), while reports that leaders do not act in secret increased 14 percentage points (from 57% to 71%). In contrast, in control sites, the percentage of households who report that their leaders do not take bribes *fell* 11 percentage points (from 80% to 69%), whereas those reporting that their leaders do not act in secret *fell* 7 percentage points (from 77% to 70%). Households in treatment communities are also significantly more likely to report that the decisions their leaders make about land use and access are fair (92% of treatment households versus 83% of control households).

We also find that the CLPP increased the systematic creation of land rules and their enforcement. We find that households in treatment communities are more likely to be involved in developing land rules, and that respondents in these communities are more satisfied with land rules, and more likely to believe that leaders punish rule-breakers. Household participation in creating land rules rose across the study area between baseline and midline, 31 percentage points (from 32% to 63%) for treatment households and 15 percentage points (from 38% to 53%) for control households.

Expressions of positive and recent changes in local land governance were evident in the treatment towns where FGDs took place. FGD respondents in treatment towns were more likely to mention that they now had stricter rules and processes in place over granting outsiders access to their land. This is the key difference related to changes in governance between treatment and control communities.

A group of youth in one treatment town in Maryland explained new rules and regulations surrounding forest access in their town:

“There are changes... in the days of old our forefathers never had these rules and regulations in place, so anybody just used to come from anywhere, enter any other forest, and just start hunting at any time, without even asking [about] the views of anybody [else]. But since those rules have been put into place and we are implementing them, nobody just comes in from anywhere now and just starts going into the forest without asking for instructions.”

In contrast, changes to rules are rarely mentioned in control towns, though they too describe that land governance their community has benefitted generally from increasing community cohesion. One elder in River Gee explains, “There are great changes now. It’s understanding. There is law and order within the town, so there is understanding. Really there is a love and unity within the town [now]. ”

Tenure Security

Overall, the evaluation fails to find clear evidence of a positive CLPP effect on tenure security in the 10 months since the program began (Table 4). On individual land, no change is detected in perceived tenure security of, or fallowing practices on, household farmland, and only a very small change is seen on one measure of the household bundle of land rights—a decrease of the proportion of households in treatment communities who believe they have the right to use household farmland as collateral for a loan.

The CLPP has increased fear of expropriation by some actors (neighboring households and clans) and/or its occurrence on some land types (communal farmland). However, we also find indications of reduced concerns of encroachment by government and investors in treatment versus control areas. For example, leaders in treatment communities are 11 percentage points more likely than those in control communities to agree that their *local* government officials respect their land boundaries, as 84% of leaders in treatment communities and 73% of leaders in control communities agree with this statement.

FGDs with community members do not reveal any obvious differences between treatment and control communities regarding instances of encroachment. In most treatment and control FGDs, land boundaries are perceived as clear, well-known and respected, and fear of encroachment on community boundaries was expressed rarely by respondents. A group of minorities in a control town in Lofa explains that boundaries are well-known, “To be frank everybody [knows] traditional land business [land issues] in this

place. Everybody who was born here knows the limits [of the land], and when a stranger comes to you, you will show him where he is supposed to stop. I've not seen people come to intrude onto somebody's own land. Everybody knows their boundary traditionally, so that no conflict has come. I've never seen people in conflict on that."

Community Land Development and Natural Resource Condition

We find that, overall, households report participating less in communal development work in treatment communities (Table 5). The result apparently driven by lower planting of some trees and rice on communal land by men. The finding suggests that the program does lead to changes to household allocation of work.

In one of our key findings, we show that household participation in work on communal lands is significantly lower in treatment communities. Treatment households plant palm trees, cocoa trees, and coffee trees on their communal farm land less often than control households. The finding is significant for an index of all types of communal work included in our survey. Overall, 28% of households in treatment communities report contributing work on their community farm, in contrast to 34% of control households. The effect of treatment on planting of other crops (rubber trees and rice) is also negative but not statistically significant.

Due to uncertainty about the mechanism driving this change, assigning a positive or negative interpretation to this difference in treatment versus control communities is difficult. On the one hand, reducing economic activity is not a goal of the program unless that activity is not in the community's interest. If a reduction occurred in activity that benefited the community, this would be negative outcome. Similarly, if higher women's investment in communal property represents a reallocation away from more productive activities (or activities over which they have more control), this could also have a negative effect. On the other hand, if the changes in investment patterns reduce harmful activity, this could be a positive development, and provides some evidence of the program's ability to change economic behavior.

We do not find a program effect on perceptions of forest resource conditions in either the quantitative or qualitative analysis. As resource conditions represent a long-term outcome, it may take additional time for program effects to emerge. However, though the statistical models are not significant, the raw proportions of households who affirm that people in their community engage in unsustainable forest practices, as measured by asking whether people cut more palm than they need and let it rot, did decrease 7 percentage points (from 70% to 63%) in treatment communities and 5 percentage points (from 56% to 51%) in control communities.

Finally, the evaluation finds weak but positive evidence of higher value placed upon communal lands by respondents in treatment areas, as respondents in treatment communities are more likely than respondents in control communities to say communal land is most important for their community's future and their community's social life, but there is little variation in responses to this question.

Secondary Findings

The remaining four outcome families contained secondary indicators, and the evaluation finds some quantitative and qualitative evidence of changes on these indicators. Tables of abstracted results on secondary indicators—which shows only the direction of impact and level of significance—are presented by outcome family (Tables 6-8).

Empowerment

We see strong qualitative evidence that the CLPP increases community members' knowledge of community land boundaries as a direct result of the boundary identification component of the program, although we do not find statistically significant results in our survey data (Table 6). In the quantitative data, we see an increase of 5 percentage points (from 86% to 91%) of households in treatment communities reporting that they know some of the boundaries of their community land. This is suggestive, but inconclusive, evidence that the CLPP may have affected boundary knowledge, as there is no ATE for community boundary knowledge.

Active and clear demarcation of community land boundaries with neighboring communities—especially by planting trees—was a notable point of difference between FGDs in treatment versus control areas. This discrepancy was especially notable for female participants. FGD participants in treatment towns were more likely to express that their boundaries were clearly demarcated by natural features, such as water or trees, or by the recent planting of “live trees”. FGD participants directly attribute progress on boundary clarification to the involvement of CLPP.

However, we do find evidence of increasing knowledge of land boundaries and awareness of Liberian policy for community lands across all the communities included in the study (both treatment and control). This suggests that changes throughout Liberia during the time of program implementation affect both treatment and control communities.

Although not significant in the quantitative models, a comparison of descriptive statistics shows a general upward trend across both treatment and control households with respect to legal knowledge. A greater percentage of respondents at midline affirmed that a community does not need a paper document to be considered the owners of the land, and that legally, traditional rights are equal to private land rights. Knowledge and awareness surrounding government ownership of community land is the exception, and it

has *decreased* across CLPP communities. At midline, more respondents in treatment communities indicated their belief that the government owns their community land (Table 4).

Given the paucity of investment activity in communities included in our sample, results are inconclusive on measures of the relationship between communities and investors.

Land Conflict

We find that the CLPP has no discernable effects on land dispute activity (Table 7). Our qualitative analysis suggests some possible increase in land dispute incidence, but results are not statistically significant.

In the qualitative data, despite positive feelings about land tenure security, the lived experience of encroachment on community boundaries was commonly mentioned in FGDs in both control and treatment communities, perhaps due to the boundary harmonization process. The most common dispute reported by household survey respondents is over boundaries with nearby communities. Instances of conflicts between members of the same community were mentioned rarely.

These results could indicate that in the medium term (at midline) conflicts have increased due to the boundary harmonization component of the CLPP (and the opportunity to resolve unresolved cases) or raising awareness, but we cannot be sure.

Livelihoods

The evaluation does not find any qualitative or quantitative evidence of livelihood or welfare improvements (Table 8). This is another long-term outcome and interpretation of possible program effects will benefit from additional time for the treatment to take effect.

Heterogeneous Treatment Effects

Table 9 presents abstracted results for subgroups of interest (women, youth, poor, and members of minority groups).

Gender

This subsection presents three categories of gender findings:

1. Changes or differences in how respondents overall (both men and women) respond to survey questions about women's land governance participation and property rights;
2. Changes over time and/or the program effect on women in treatment versus women in control communities;
3. Intra-community differences between men and women in treatment communities.

With respect to the first category (overall findings on perceptions of gender norms), evidence from the survey data overall suggests that there is a general trend upward for women's empowerment across all communities, but we are not necessarily seeing a program effect. Women trend a small amount upwards from baseline to midline on a ladder of power in community decision making that ranges from 1 to 10 (Mean placement of 6 at baseline and mean placement of 7 at midline),

The evaluation finds an uptick across both treatment and control groups for knowledge of formal laws related to women's inheritance. In addition to legal knowledge, a component of the CLPP's theory of change is shifts in norms. Without changes in norms, gains in knowledge may not be sufficient to change behavior or outcomes.

To test how norms have changed, and specifically how existing gender norms affect the CLPP's effort to successfully empower disadvantaged groups within communities, we used a survey experiment to test whether highlighting the women's rights component of legal reforms affects support of the reform. We find that respondents who received the prime that land reform will involve giving women equal rights to inherit, own, use, and sell land in their community were significantly less likely to report positive feelings about land reform.

Moreover, in leader interviews, many leaders expressed initial support for women's equality or 'rights' but later qualified with a series of restrictions on women's inheritance requirements, such as the requirement that women must have had children or marry her husband's brother.

With respect to the second category (changes for women in treatment versus in control communities), we find modest program effects for women in treatment communities as compared to women in control communities. We find some evidence of positive differences between treatment and control communities for women. Women in treatment communities seem to participate in governance at higher rates than women in control communities; women in treatment communities are 11 percentage points more likely to report attending a land meeting (68% in treatment communities versus 57% in control communities). However, despite gains in participation, we do not see differences on other governance measures. We find no change attributable to CLPP in the number of women serving in community leadership due to treatment.

Women in treatment communities fall below women in control communities on several tenure security indicators. There are also indications that women perceive themselves as having fewer rights in treatment communities. Women in treatment communities are more likely to believe that customary authorities own their communal land (62% in treatment communities versus 53% in control communities). Women in treatment communities also believe they have fewer land rights on their individual farmland at midline, as

compared to women in control communities, although the results are not significant. Women are ten percentage points less likely to report that they can use their household's farmland as collateral for a loan (8% in treatment communities versus 18% in control communities), and seven percentage points less likely to be able to plant rubber trees (75% in treatment communities versus 82% in control communities). However, women in treatment communities are 11 percentage points more likely to say they have a right to map their land (67% in treatment communities versus 56% in control communities). There is no difference in the proportion of women in treatment versus control communities who report having the ability to decide who inherits their household's land.

The focus group analysis does not reveal any gender differences between treatment and control respondents regarding community land expropriation. However, female participants in some treatment communities mentioned that they are hesitant or unable to comment on community land because either they do not go into the bush or because it is the men in the community who are involved in land issues. For example, one group of women in Lofa says, "It's not our topic, it's our fathers' and our grandfathers' ... Woman can't talk about land business [land issues] here so much."

With respect to the third measure (gendered changes in behavior in treatment communities), the analysis shows that the program affected men and women differently in reports of work on communal land. Across other outcome areas we find little overall difference in the effect of the program on women.

In particular, we find that as hypothesized, women's participation in communal farming—largely rice planting—is higher in treatment communities both in relation to women in control communities and in relation to men in treatment communities. However, because male participation is far lower than the higher observed participation by women in treatment communities, the overall effect in treatment communities is less investment in communal land. This subgroup result promotes understanding of the large and significant difference in planting on communal land.

Women in treatment and control communities do not perceive their tenure security differently than men. Women overall (in treatment and control communities) are less likely to be involved in land conflicts, while men overall (in treatment and control communities) are more likely to be involved in a conflict (although the result is not statistically significant). In the statistical models, women in treatment communities are slightly (but significantly) less likely than both men in treatment communities and women in control communities to report that any land conflict they had been involved in was resolved, and they are less likely to report satisfaction with the conflict resolution process.

Other Vulnerable Groups

In our analysis of vulnerable groups, we find little overall difference in the effect of the program on members of minority groups, youth, and poor.

We find that minority respondents in treatment communities are less likely to report that they can decide who inherits their land, map their land, or plant rubber trees. At the same time, we find that the CLPP leads to increased reported participation by minorities in land governance mechanisms. Minorities in treatment communities are significantly more likely to report that they help to resolve conflicts.

Qualitative evidence suggests that poor households in treatment communities fare worse on measures of tenure security perception, as they are more likely to fear some types of land expropriation. We find that poor respondents also have significantly more negative perceptions of their leaders in communities participating in the CLPP, as compared to non-poor households in communities participating in the CLPP. Land governance participation results for poor respondents are mixed.

Discussion

The CLPP assumes that increased community empowerment and better, more inclusive governance of communal land in the short- to medium-term will promote Liberian communities to improve community governance, reduce land conflicts, strengthen land tenure security, increase sustainable natural resources management and conservation, increase community members' legal empowerment, and protect the rights of women and other vulnerable groups.

We find encouraging evidence that in the medium-term, the CLPP has a significant impact on community governance. The key findings of this evaluation are widespread initial governance improvements and good qualitative evidence that education on community land boundaries and strategies for boundary demarcation occurred. There are also some encouraging indications of improved communal management of community farmland.

However, the changes in community empowerment for treatment communities, including legal knowledge and awareness, are weaker than we would expect at this stage. Although we find evidence of a general trend in the qualitative data of improvements in some community empowerment indicators, there are not notable changes for ATEs on empowerment indicators or for subgroups. It is possible that the program is not advancing community knowledge and awareness because of intervention limitations. In particular, the lack of legal clarity with respect to the Land Rights Act at the time of the intervention may have stymied successful knowledge and awareness training. An alternative explanation is that changes are occurring in control communities that could be increasing their levels of knowledge and awareness to such an extent that we do not see a difference with CLPP treatment areas.

There are also other outcomes that we would have expected to see positive effects for at this time horizon that have either not changed or moved in the opposite direction. The mixed findings on tenure security are the most important that fall into this category. While there is some qualitative evidence that the program has made communities more confident in their tenure security in dealings with investors, respondents in treatment areas still report significant anxiety about the threat of encroachment from neighboring households and clans.

One possible explanation for lack of improvement on tenure security indicators might be that the program is not yet complete. According to the CLPP theory of change, tenure security should improve at program completion. Another possibility is the CLPP has increased fear of expropriation by some actors (neighboring households and clans) in treatment areas. It may be that the CLPP actually raises awareness about the importance of tenure security and resource conservation and that this what the evaluation is picking up, rather than decreases in security itself.

It is also possible that changes to perceptions of tenure security in CLPP communities are limited by the delay in passage of the Land Rights Act up to this point. This legislation narrowly failed to pass during the fall 2017 legislative session (it passed the House of Representatives but not the Senate), and it is not expected to be considered again until the fall of 2018. However, it must be noted that significant changes were made in the version of the bill that was passed by the House of Representatives in August 2017. In that version, 30% of identified customary land would be converted to public land without any benefit to communities. The House's version also empowers the Government of Liberia to extend land concessions (existing on customary land prior to the enactment of the Bill) indefinitely. There is a little room in this process for inputs from communities, as the Bill mandates that their views on the negotiation and extension of concession agreements will be overseen by a new government agency that does not yet exist. If these problematic changes survive into a final version of the bill, the study's hypothesized changes to tenure security as a result of the CLPP may need to be reexamined.

The negative effect on household planting on communal land also raises some concern, especially taken with the findings about increased instances of expropriation of communal farmland. These observed trends could be occurring due to capture of individual farm land by elites or increased awareness of the value of conserving communal space from cash cropping. As such, assigning a positive or negative interpretation to this difference in treatment versus control communities is difficult.

On the one hand, the fact that women have reallocated their work towards community farms could be a negative outcome if the returns to such work (compared with investments in household farm land or market businesses) are lower. In the latter cases, she can directly claim the produce of her labor whereas,

with the community land, her contribution may or may not get recognition from the community. On the other hand, if the overall lower investment in communal property is the result of increased awareness about restricting investments in that property to public goods (the change is concentrated in activities with asymmetrical benefits) then it might be a sign that the program leads to positive changes in economic behavior. Longer term data collection is needed on these indicators to see where these tenure security and conservation trends develop across treatment and control communities.

Initial results on women's empowerment also require a longer-term research perspective. It is to be expected that the effect of CLPP on women's rights would not yet be realized given the short time since the start of program implementation. However, there is strong evidence that despite the program, women still have a harder time realizing their rights and that norms around women's empowerment remain firmly rooted unequal status. Similarly, members of minority groups did not report changes in their engagement with land governance or tenure security. Although there are several possible interpretations of this finding of no change, we believe that it is suggestive evidence of the challenge of changing local power structures, especially those entwined with notions of citizenship and belonging. The evidence of subgroup effects at this stage is particularly incomplete because boundary mapping and negotiation were prioritized up to this point by the implementing organization over the governance and norms change component of the program.

Policy, Programming and Research Recommendations

The evaluation findings provide a basis for the following policy, programming, and research recommendations:

Overall

- Longer term data collection is needed on several indicators to see how trends continue to develop across treatment and control communities. These currently inconclusive indicators include key indicators of tenure security such as perceived threat of encroachment, prevalence of land conflicts, and indicators of women's empowerment. Only after intervention has been completed will we be able to fully understand these effects.
- The counties selected for inclusion in this study do have active land concessions, but they do not have agricultural concessions, as are found in other areas of Liberia. While, as detailed below, this evaluation finds encouraging evidence that several aspects of the CLPP process are good candidates for replication in other areas of Liberia, these findings should be understood to have likely (but unproven) external validity with respect to other counties in Liberia.

Community Empowerment

- The lack of change in knowledge and awareness of community land laws and land rights for treatment communities suggests that it will take time to make people aware of their rights, and that the lack of passage of key legislation may have proved confusing for communities. Once the Land Rights Act passes, significant resources will be critically needed for consultation and outreach on these topics by NGOs such as SDI, donors, and the government of Liberia.
- However, the findings on communal farmland that communities participating in the CLPP have higher communal decision making and larger inputs by women could be an encouraging instance of empowering behavior changes stemming from the CLPP. These results suggest that even at partial completion, the CLPP model may produce inclusive, positive results for management of communal farmland. As such, at this stage it appears that this model may be viable blueprint or intervention template for future community development work.

Land Governance

- Even at a comparatively early stage, the CLPP has had a striking effect on how community members perceive their leaders in treatment communities. This result provides important evidence in support of the premise of the CLPP intervention that land governance programs are most successful when they involve long-term, on-going support, training, and capacity building for communities. The midline results of this evaluation are another data point in favor of the effectiveness of this embedded approach.
- The CLPP's effect on how community members perceive their leaders also provides evidence on the mutability of such perceptions of leaders. The fact that targeted support of leaders in a specific thematic area (communal natural resource management) increases overall perceptions suggests that the relationship between local leaders and community members in Liberia could benefit from programming in other domains.
- Nevertheless, results on community meeting attendance and participation in land governance are mixed, and present a cautionary point that the CLPP could strengthen leaders to act unilaterally and facilitate elite capture. While the findings in CLPP areas show that people are more likely to be involved in helping make rules and there is greater community involvement in decisions about community farmland, we also see no change overall in meeting attendance and (descriptive) declines in rule monitoring and enforcement by households. These results—combined with underwhelming results on benefit sharing and decision-making authorities—might indicate that leader strengthening is occurring without democratization of land

governance. Or they might simply indicate local leader empowerment during intensifying decentralization. These are critical indicators and trends to track at endline.

Tenure Security

- Widespread community satisfaction with the CLPP boundary harmonization process is evident in the qualitative data, including boundary negotiations with neighboring communities, identifying boundary landmarks, and planting boundary trees. These components are good candidates to be scaled-up wholesale to all of Liberia.

Gender

- The finding that women invest more time in planting rice on communal farmland as a result of the CLPP can be interpreted several ways. It could suggest that women are empowered to make use of communal lands they previously lacked access to (potentially in response to conservation behavior diminishing the amount of cash crop tree planting on those lands). However, further analysis is required to understand this result in conjunction with the finding that men have lower investment in communal farmland, given the possible effects of the program on intra-household bargaining.
- The finding that changes to gender norms governing property rights are met with skepticism demonstrates the difficulty of seeking transformative change of community norms and power structures. This is true even in the context of slow-moving but progressive legal transformation ongoing in Liberia. Women, in particular, and vulnerable groups in general, will require support to obtain truly equal access to governance structures and property rights. This finding is consistent with IFRPI's recent review of the evidence on women's land rights (Meinzen-Dick, et al. 2017).
- Another implementation condition that may have factored into the weak gender findings to-date is the fact that during almost all of the implementation period captured at the study midline (2016–2017), the implementer was utilizing an all-male field team. A female field staffer has since started working in one of the three study counties, but it is possible that gender outcomes could be improved in the future by greater commitment on the part of the implementer to ensuring that female field staffers are employed across the study area.

Other Vulnerable Groups

- Poor respondents in communities supported by the CLPP do report higher participation in some land governance activities, such as creating rules, and lower participation on other measures. This finding that less positive change occurred for poor households on the land governance and tenure security indicators is expected, given the difficulty of producing change for the least connected community members in a program that targets everyone.

- However, they still may suggest that the CLPP model could potentially be altered to do more to empower poor members of the community.
- This evaluation’s inconclusive findings for youth, minorities and poor community members can also be understood as demonstrative of tension between the program as-designed—which was intended to have a strong focus on vulnerable populations—and the program as-implemented—the scope of which was culled several times based on funding constraints, and more importantly, based on assessments of what was feasible on the ground to implement in concert with local power structures. These evaluation results highlight the difficulty of promoting change within power structures that a program must rely upon for community access. Additional investigation and piloting should be undertaken to discern potential changes in program design to render assumptions surrounding this empowerment work more reasonable.

Conclusion

The initial evaluation findings suggest that partial program implementation of the land governance intervention has already produced significant improvements in household perception of leaders’ involvement in local land and natural resource governance. In contrast, the overall absence of change in perceptions of tenure security is notable and requires further explanation, although it is beyond the scope of the study at this stage to do so definitively.

Our assessment cannot yet reveal whether the changes 10 months into programing will persist and whether the mechanisms hypothesized to bring about longer-term changes will prove to be effective. Accordingly, a third round of data collection, presents a valuable opportunity to study the effect of the total CLPP intervention as designed, as well as improve the evaluation’s power to detect causal effects and expand the number of indicators available for panel analysis.

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Tables

Table 1: Evaluation Hypotheses and Key Indicators

Outcome Family	Hypothesis	Primary and Secondary Indicators
Land Governance	H. <u>Communities</u> receiving the CLPP intervention will have different local land governance.	<ul style="list-style-type: none"> • Land governance index
Land Governance	H. <u>Households</u> in communities receiving the CLPP intervention will have different perceptions of local land governance.	<ul style="list-style-type: none"> • Changes in household perception of transparency in decision-making processes, including decisions with broad local understanding and agreement (specific to negotiations with investors) • Level of monitoring, enforcement, and sanctions for communal land and forest resources • Land governance index • Change in household perception of accountability of community leaders and decision makers over land and natural resources • Change in level of household satisfaction with land governance processes in the community • Change in household trust in village leaders involved in land and natural resource governance (fairness) • Change in household perceived capacity of village and other local leaders to manage communal natural resources sustainably • Level of monitoring, enforcement, and sanctions for communal land and forest resources • Changes in household perception of transparency in decision-making processes, including decisions with broad local understanding and agreement
Empowerment	H. <u>Communities</u> receiving the CLPP intervention will have different capacity to negotiate with government actors and outside investors in the instance of a proposed land concession.	<ul style="list-style-type: none"> • Receipt of benefits by community from investor activity (Context) • Knowledge of Liberian laws regarding decentralized lands and natural resource management, among leaders and households (Context)

Table 1: Evaluation Hypotheses and Key Indicators

Outcome Family	Hypothesis	Primary and Secondary Indicators
Empowerment	H. <u>Households</u> in communities receiving the CLPP intervention will perceive different capacity of local leaders to negotiate with government actors and outside investors in the instance of a proposed land concession.	<ul style="list-style-type: none"> • Knowledge of laws regarding decentralized lands and natural resource management • Knowledge of Liberian property law for women • Knowledge of individual and community rights around engaging with outside investors and land concession processing • Knowledge of laws regarding decentralized lands and natural resource management • Change in households' knowledge of communal land boundaries
Tenure Security	H. <u>Communities</u> receiving the CLPP intervention will perceive different levels of tenure security over communal lands and natural resources in their community.	<ul style="list-style-type: none"> • Perceived risk of encroachment on communal land by government or investors • Perceived risk of encroachment on communal land, among leaders and households
Tenure Security	H. <u>Households</u> in communities receiving the CLPP intervention will perceive different access rights, levels of tenure security, and protection of land their household customarily uses.	<ul style="list-style-type: none"> • Confidence in household ability to access and use household farmland and resource assets, as measured by length of time farmland is left fallow • Frequency of loss of household rights to communal land • Perceived risk of encroachment on communal land, among households (by land type) • Perceived risk of encroachment on communal land, among households (by actor) • Confidence in household ability to access and use household farmland and resource assets • Change in perception of informal/customary rights over forest resources or communal land
Land Conflict	H. <u>Communities</u> receiving the CLPP intervention will have different community-wide incidence of land conflicts	<ul style="list-style-type: none"> • Prevalence of land and natural resource-based conflicts
Land Conflict	H. <u>Households</u> in communities receiving the CLPP intervention will experience a different number of land conflicts.	<ul style="list-style-type: none"> • Number of land and natural resource-based conflicts that involve households • Household satisfaction with the process to resolve land and natural resource conflicts

Table 1: Evaluation Hypotheses and Key Indicators

Outcome Family	Hypothesis	Primary and Secondary Indicators
Community Land Development and Natural Resource Condition	H. <u>Communities</u> receiving the CLPP intervention will have different levels of natural resource conservation and community land development.	<ul style="list-style-type: none"> • Change in perceptions of availability and quality of forest other communal natural resources, including timber, fuel wood, rivers/streams, animals, etc. (Context) • Change in perceptions of forest conditions and degradation (Context) • Frequency of engaging in unsustainable forest practices (Context) • Level of, frequency of and community participation in investment in communal land and natural resources (Context) • Conservation as community priority (Context)
Community Land Development and Natural Resource Condition	H. <u>Households</u> in communities receiving the CLPP intervention will report different levels of natural resource conservation and community land development.	<ul style="list-style-type: none"> • Participation index • Household participation in investment in communal land and natural resources (disaggregated by type of land and/or activity) • Conservation as household priority • Change in perceptions of availability and quality of forest other communal natural resources, including timber, fuel wood, rivers/streams, animals, etc. • Change in perceptions of forest conditions and degradation • Frequency of engaging in unsustainable forest practices • Level of, frequency of and household participation in investment in communal land and natural resources
Livelihoods	H. <u>Households</u> in communities receiving the CLPP intervention will have different livelihood and welfare outcomes.	<ul style="list-style-type: none"> • Size of household land • Income/prevalence of poverty and overall welfare

Table 2: Overview of Significant Findings on Primary Indicators⁵

Outcome Family	Indicator	Finding on households in treatment areas [†]	Finding on communities in treatment areas [†]	Source [‡]
Tenure Security	Perceive a reduced risk of encroachment on communal land by actor and by land type	Pos/-	Pos/- ⁶	Panel model and Cross-sectional model
	Improved household rights to communal land	-		Cross-sectional model
Land Governance	Increased perception of leader capacity	+	+ ⁷	Panel model
	Increased household satisfaction with leaders	+		Panel model
	Increased leader transparency	+		Panel model
	Improved ethical behavior by leaders (do not take bribes)	+	+	Panel model
	Improved rule enforcement	+	+	Panel model
	Increased participation in rule creation	+		Panel model
	Increased satisfaction with rules		+	Panel model
	Increased satisfaction with land decisions	+		Cross-sectional model
Community Land Development and Natural Resource Condition	Increased tree planting by households on community farm	-		Cross-sectional model
	Increased rice planting by households on community farm		+ ⁸	Cross-sectional model

⁵ † A plus sign (+) indicates a quantitative finding in the direction indicated in the indicator description, while a minus sign (-) indicates a quantitative finding in the opposite direction as indicated in the indicator description. Size and bold font indicate the level of statistical

significance: **+**/- : p<0.1; **+**/- : p<0.05; **+**/- : p<0.01.

'Pos' indicates a qualitative finding in the direction indicated in the indicator description, while 'Neg' indicates a qualitative finding in the opposite direction as indicated in the indicator description.

A blank cell indicates that there were no significant findings on this indicator.

Shading indicates the magnitude of the significant effect: 1–10% difference is light blue; 11–30% difference is medium blue; 31% and above difference is dark blue. Because they use an interaction term, tables presenting differential impacts on subgroups are not shaded.

‡ Data sources are Panel statistical models, Cross-sectional statistical models, Descriptive statistics, and qualitative data. Please refer to the Evaluation Methods section for more information about analytic approaches.

⁶ Aggregated household survey data and leader survey data.

⁷ All community level governance perception data comes from aggregated household survey data.

⁸ Aggregated household survey data.

Table 3: Cross-sectional and Panel Analysis - Household Land Governance Satisfaction and Participation

	Leaders protect forest	Satisfaction with leaders	Leaders don't take bribes	Leaders consult community	Leaders punish rule breakers	Leader don't act in secret	Helps create rules	Household believes leaders' land decisions are fair	People are punished for land rule breaking	Household satisfied with land rules
Difference-In-Difference	0.25* (0.13)	0.09* (0.05)	0.22** (0.09)	0.16* (0.09)	0.23* (0.13)	0.20** (0.08)	0.15** (0.07)		0.63** (0.24)	0.80** (0.31)
Treatment								0.08* (0.05)		
Mean, control group	89%	27%	75%	70%	88%	75%	45%	83%	3.55	4.22
ATE as % of control	28%	32%	30%	24%	26%	27%	34%	10%	18%	19%
Vector of household controls	No	No	No	No	No	No	No	Yes	No	No
Vector of community controls	No	No	No	No	No	No	No	Yes	No	No
Observations	572	570	572	572	572	572	662	818	668	668
R-squared	0.13	0.01	0.04	0.02	0.07	0.04	0.1	0.09	0.05	0.14
Corrected treat P-value								0.51		
Corrected DID P-value	0.51	0.51	0.32	0.51	0.51	0.3	0.36		0.28	0.28

Table 4: Cross-sectional and Panel Analysis - Household Tenure Security

	Household Lost Communal Farmland	Household Believes Expropriation Likely By:		Who owns communal land?	
		Neighboring Households	Neighboring Clans	Government in Monrovia	Landlord/first settlers
Difference-In-Difference		0.14*	0.13*	0.07*	0.27*
		(0.08)	(0.07)	(0.04)	(0.15)
Treatment	0.06**				
	(0.03)				
Mean, control group	2%	37%	35%	8%	50%
ATE as % of control	311%	38%	37%	94%	53%
Vector of household controls	Yes	No	No	No	No
Vector of community controls	Yes	No	No	No	No
Observations	818	669	671	594	600
R-squared	0.04	0.01	0.01	0.01	0.03
Corrected treat P-value	0.44				
Corrected DID P-value		0.51	0.51	0.51	0.53

Table 5: Cross-sectional and Panel Analysis - Household Contribution to Community Farm

	Plant palm	Plant cocoa	Plant coffee	Binary (above/below mean)	Days worked total
Treatment	-0.05**	-0.03*	-0.04*	-0.08**	
	(0.03)	(0.02)	(0.02)	(0.03)	
Difference-In-Difference					-1.86*
					(1.08)
Mean, control group	7%	12%	5%	34%	2.29
ATE as % of control	-77%	-29%	-71%	-23%	-81%
Vector of household controls	Yes	Yes	Yes	Yes	No
Vector of community controls	Yes	Yes	Yes	Yes	No
Observations	663	663	663	656	683
R-squared	0.06	0.11	0.11	0.07	0
Corrected treat P-value	0.45	0.53	0.49	0.32	
Corrected DID P-value					0.53

Table 6: Summary of Findings on Secondary and Context Community Empowerment Indicators

Indicators	Finding in treatment areas*	Source ⁺
<i>H. <u>Communities</u> receiving the CLPP intervention will have different capacity to negotiate with government actors and outside investors in the instance of a proposed land concession.</i>		
Increased capacity to negotiate with investors	Inconclusive	Descriptive statistics, Qualitative data
<i>H. <u>Households</u> in communities receiving the CLPP intervention will perceive different capacity of local leaders to negotiate with government actors and outside investors in the instance of a proposed land concession.</i>		
Increased boundary knowledge	Pos	Descriptive statistics, Qualitative data

* Please see Footnote #6 for clarification on symbols used within this table.

Table 7: Summary of Findings on Land Conflict Indicators

Indicators	Finding in treatment areas*	Source ⁺
<i>H. <u>Communities</u> receiving the CLPP intervention will have different community-wide incidence of land conflicts.</i>		
Reduced incidence of conflict (S)	Pos	Descriptive statistics
<i>H. <u>Households</u> in communities receiving the CLPP intervention will experience a different number of land conflicts.</i>		
Reduced incidence of conflict (S)	Inconclusive	Panel model, Cross-sectional model, Descriptive statistics, Qualitative data

* Please see Footnote #6 for clarification on symbols used within this table.

Table 8: Summary of Findings on Livelihoods Indicators

Indicators	Finding in treatment areas*	Source ⁺
<i>H. <u>Households</u> in communities receiving the CLPP intervention will have different livelihood and welfare outcomes.</i>		
Improved livelihoods outcomes	Size of household land (S)	NA
	Income/prevalence of poverty and overall welfare (S)	Pos Descriptive statistics

* Please see Footnote #6 for clarification on symbols used within this table.

Table 9: Summary of Subgroup Effects

Indicator[^]	Finding	Source⁺	
Increased land governance participation	by women	+	Cross-sectional model
	by youth	+	Cross-sectional model
	by minorities	+	Cross-sectional model
	by poor	+/-	Cross-sectional model
Improved household rights to communal land	for women	-	Cross-sectional model
	for poor	+	Cross-sectional model
Increased participation in community development	by women	+	Cross-sectional model
	by minorities	+	Cross-sectional model

Figures

Figure 1. Communities Participating in the CLPP Evaluation

