

ETHIOPIA STRENGTHENING LAND TENURE AND ADMINISTRATION PROGRAM

An Impact Evaluation of Land Certification in Four Regions in Ethiopia

Pre-Analysis Plan

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CONTENTS

[**INTRODUCTION 1**](#_heading=h.3znysh7)

[**1.0 BACKGROUND 3**](#_heading=h.3dy6vkm)

[LAND TENURE IN ETHIOPIA 3](#_heading=h.1t3h5sf)

[PROGRAMS OVERVIEW 5](#_heading=h.17dp8vu)

[**2.0 METHODS 6**](#_heading=h.lnxbz9)

[EXISTING DATASETS THAT WILL INFORM THIS IMPACT EVALUATION 6](#_heading=h.35nkun2)

[RESEARCH QUESTIONS, HYPOTHESIS, AND INDICATORS 8](#_heading=h.1ksv4uv)

[SAMPLING 12](#_heading=h.2jxsxqh)

[**3.0 DATA ANALYSIS 19**](#_heading=h.3j2qqm3)

[ANALYSIS 1: QUANTITATIVE ANALYSIS OF OUTCOMES 19](#_heading=h.4i7ojhp)

[ANALYSIS II: QUANTITATIVE ANALYSIS OF GENDER BASED VIOLENCE OUTCOMES USING STATISTICAL MATCHING METHODS 21](#_heading=h.2xcytpi)

[ANALYSIS III: QUALITATIVE ANALYSIS 22](#_heading=h.1ci93xb)

[**4.0 ETHICAL CONSIDERATIONS AND DATA MANAGEMENT 23**](#_heading=h.3whwml4)

[**5.0 DELIVERABLES & CALENDAR 24**](#_heading=h.qsh70q)

[**REFERENCES 26**](#_heading=h.2p2csry)

ANNEXES:

1. DATA COLLECTION INSTRUMENTS USED IN BASELINES AND 2015 DATA COLLECTION.
2. INDICATORS IN THE 2015 DATA COLLECTION
3. 2020 HEAD OF HOUSEHOLD SURVEY QUESTIONNAIRE (See IRB appendix 9)
4. 2020 WIVES SURVEY QUESTIONNAIRE (See IRB appendix 10, 11 and 12)
5. 2020 KEBELE AUTHORITY SURVEY QUESTIONNAIRE (See IRB appendix 13)
6. FOCUS GROUP DISCUSSION GUIDES
7. IRB protocol and appendixes including:
	1. Appendix 1. Informed Consent Form for Survey Male Heads of Households
	2. Appendix 2. Informed Consent Form for Survey Women Head of Households
	3. Appendix 3. Informed Consent Form for Long Survey for Wives in Monogamous Households and First Wives
	4. Appendix 4. Informed Consent Form for Short Survey for Second Wives in Polygamous Households
	5. Appendix 5. Informed Consent Form and Survey for Kebele/Village Authorities
	6. Appendix 6. Informed Consent Form for FGD for Wives
	7. Appendix 7. Informed Consent Form for FGD for Heads of Households
	8. Appendix 8. CV PI
	9. Appendix 9: Head of Household Survey
	10. Appendix 10: Survey for Wives in Monogamous Households.
	11. Appendix 11: Long Survey for Wives in Polygamous Households
	12. Appendix 12. Short Survey for Wives in Polygamous Households
	13. Appendix 13. Kebele Authority Survey
	14. Appendix 14 Recruitment Script for Heads of Households (in person)
	15. Appendix 15. Recruitment Script for Wives in Monogamous Households -Survey
	16. Appendix 16. Recruitment Script for Wives in Polygamous Households - Survey
	17. Appendix 17. Recruitment Script for Kebele Authority (in person and phone)
	18. Appendix 18. Recruitment Script for all potential participants in FGDs
	19. Appendix 19: EconInsights Data Collection Capabilities
	20. Appendix 20: EconInsights Capabilities Statement
	21. Appendix 21. Script for Quality Control Follow-up with Survey Respondents (all types)
8. Summary report of the assessment of the attrition

ACRONYMS

ATE Average Treatment Effect

CEL Communications, Evidence, and Learning project (USAID)

CO Contracts Officer

COP Chief of Party

COR Contracts Officer’s Representative

CORS Continuously Operating Reference Stations

CSA Climate Smart Agriculture

DFID Department for International Development

DID Difference-in-Difference

ELAP Ethiopia Land Assistance Program

ELTAP Ethiopia Land Tenure Assistance Program

EMA Ethiopian Mapping Agency

ERC Evaluation, Research, and Communication

FGD Focus Group Discussion

GoE Government of Ethiopia

IDI In-Depth Interview

IE Impact Evaluation

ILRG Integrated Land and Resource Governance (ILRG) program

IRB Institutional Review Board

ITT Intent to Treat

KAS Kebele Authority Survey

KII Key informant interview

LIFT Land Investment for Transformation

LTPR Land Tenure and Property Rights

M&E Monitoring and Evaluation

MDES minimum detectable effect size

RALS Rural Agricultural Livelihoods Survey

REILA Responsible and Innovative Land Investment Project

SLMP Sustainable Land Management Plan

STARR Strengthening Tenure and Resource Rights

TGCC Tenure and Global Climate Change

TOT Treatment on the Treated

USAID United States Agency for International Development

USG United States Government

VG Vulnerable Group

# INTRODUCTION

In the late 1990s, the Government of Ethiopia (GoE) embarked on an ambitious program to document and register land held by rural households in what is known as Ethiopia’s ‘first-level’ land certification program. This program, widely recognized by donors, practitioners and scholars as one of the most successful low-cost registration programs in the world, sought to increase tenure security and certify long-term use rights for rural households. The program is credited with successfully certifying land use rights for over 12 million households. Ethiopia’s Ministry of Agriculture estimated that the program covered 90% of all rural households by 2013. Nonetheless, the program’s impact was hampered by the absence of plot-level mapping and insufficient boundary information, which prevented the development of accurate cadastral maps and precluded needed improvements to land use management and administration systems and to computerized land registries.

To address these limitations, the GoE, with support from the United States Agency for International Development (USAID), implemented the Ethiopia Strengthening Land Tenure and Administration Program (ELTAP) from 2005 to 2008. ELTAP improved the certification process by working with district-level land administration agencies in the rural highlands regions to introduce ‘second-level certification,’ which entailed the computerized digital mapping of parcels, cadastral registration, and the issuance of land certificates. This support continued under a similar USAID program, the Ethiopia Land Administration Program (ELAP), which ran from 2008 to 2013. In 2013, USAID’s certification efforts under ELTAP and ELAP were scaled up significantly by a program funded by the United Kingdom’s Department for International Development (DFID) -Land Investment for Transformation (LIFT) expected to be in operation between 2013 and 2020.

Cloudburst conducted an impact evaluation of the ELTAP/ELAP programs in 2015. It found that the second-level certification programs led to improvements along some dimensions; namely, the study found evidence of a small increase in access to credit, a modest increase in tenure security, and a sizable increase in women’s empowerment measures. Contrary to the programs’ expectations, however, the evaluation did not find improvements in land rental activity or investments in soil and water conservation, nor did it find evidence of reduced land disputes. Arguably, more time needed to pass before the expected outcomes could be observed and the programs could reach their full potential.

Under USAID’s Communications, Evaluation, and Learning (CEL) project, Landesa will explore this proposition by revisiting these households to assess the longer-term impacts of land certification. By conducting an impact evaluation five years later, and evaluating households that have had their certificates for twelve to fifteen years, this follow-on study will help determine (a) whether the previously observed outcomes have been sustained and how they have evolved; and (b) whether the other expected outcomes have materialized now that more time has passed.

In addition, a scoping trip conducted in February of 2020 identified strong demand for additional information on the program’s impact on outcomes that affect women specifically. The scoping also identified a need for more information on some of the processes, such as the functioning of the land administration committees at the district and village levels, that may have helped or hindered the program’s overall impact. Landesa’s proposed impact evaluation will address both demands by adding to the set of outcomes that had been covered in the Cloudburst evaluation and by complementing the surveys with robust qualitative research.

More concretely, this follow-on study will assess the cumulative impact, for men and women, of receiving a land use certificate, not the impact of the second level certification compared to the first level certification, by testing the following hypotheses:

1: Having a land certificate increases women and men’s access to informal and/or formal credit.[[1]](#footnote-1)

2: Having a land certificate reduces the number of land-related disputes faced by women and men and decreases the time required to resolve land-related disputes when they arise.

3: Having a land certificate increases the likelihood of women and men engaging in land rental and sharecropping activities.

4: Land certification increases women’s and men’s investment in productive assets.

5: Land certification results in households having higher levels of agricultural productivity.

6: Land certification encourages households to invest more in soil and water conservation (SWC).

7: Having a land certificate results in stronger perceived tenure security for women and men.

8: Land certification increases the extent to which households engage in off-farm income generating activities.

9: Joint land certification increases women’s involvement in land management and decision-making.

10: Joint Land certification decreases women’s risk of experiencing intimate partner violence.

By supporting this impact evaluation, USAID will be able to better understand and generate innovative and robust knowledge on the impacts and limitations of second-level land certification efforts. These findings can contribute to the development of enhanced programming to improve the well-being of rural land users in Ethiopia. More broadly, these findings can contribute to the global body of knowledge on the effectiveness of land tenure programming. Based on newly available data and improved methodologies, the study should generate more robust findings than the previous evaluation, especially for subgroups of interest such as women. The study also expects to generate unique findings on outcomes for women based on new in-depth quantitative and qualitative research modules. Importantly, by studying the households over such a long timeframe, this study will address a significant gap in the land tenure literature on longer-term impacts of land tenure programming, not only in Ethiopia but in the development literature more generally. *To our knowledge, this study would be the first to consider the long-term impacts of land rights certification in a rural agricultural setting.*

This document describes the analysis plan for the proposed impact evaluation (IE) and is structured as follows: Section I presents the background to this evaluation, including a brief introduction to land tenure in Ethiopia and the programs that will be assessed. Section 2 presents the previous Cloudburst evaluation and the datasets on which this study builds; it also discusses the methods for the current IE including the research questions, the hypotheses to be tested and the indicators that will be used, as well as the structure of the samples on which this study will be based. Section 3 describes the quantitative and qualitative analysis we will conduct. Section 4 covers the ethical considerations. Finally, Section 5 lays out the estimated schedule for deliverables. The Annexes include the quantitative and qualitative research instruments from the previous data collections and evaluation as well as those created for this impact evaluation.

# 1.0 BACKGROUND

## LAND TENURE IN ETHIOPIA

Following the change of government in Ethiopia in 1975, all rural land was nationalized, and farmers were granted use-only rights. The 1995 constitution has provisions that were later enacted through the 1997 land proclamation. Chapter 35 of the 1995 Constitution mandated that men and women have equal rights to property; article 40 vests the right of ownership of land in the State, and chapter 52 gives the regional governments the right to “administer land and other natural resources in accordance with Federal laws;” (Federal Republic of Ethiopia, 1995). In 1997, the GoE passed the Federal Rural Land Administration Proclamation that sets out principles and foundations for laws relative to land tenure and administration of rural land are to be enacted by Regional Councils in respect of each Region of Ethiopia. This proclamation declares (Rural) land as common property of the “Nations, Nationalities and Peoples” of Ethiopia (FAO n/d). In 1998, the Government of Ethiopia (GoE) embarked on a rural land registration program to increase the tenure security and certify the long-term use rights of rural households in the four rural Highlands regions of Ethiopia; the program began in the Tigray region, followed by Amhara (2002), and finally was implemented in the Oromia and the Southern Nations Nationalities and Peoples (SNNP) regions (2004). The 1997 land proclamation was replaced in 2005 by the Federal Democratic Republic of Ethiopia Rural Land Administration and Land Use Proclamation (No. 456/2005). This new proclamation presents a new system of administration for rural land management and use and for sustainable rural land use planning based on the different agro-ecological zones of the country. The Proclamation provides rules relative to acquisition and use of rural land including by peasant farmers and pastoralists. It also governs the transfer, distribution, and use of rural land as well as how to solve disputes and defines responsibilities of the Federal Ministry of Agriculture and Rural Development and Regions (Federal Negarit Gazeta: 2005). As Zemen Haddis and Solomon Bekure (2017) rightly point out, the land administration and use proclamation should provide a legal framework to guide the regions in developing their own respective land laws. However, the 1997 Federal Proclamation gave little emphasis to land use plans. The Federal Democratic Republic of Ethiopia Rural Land Administration and Land Use Proclamation (No. 456/2005) provided a legal framework on the administration and use of rural land. However, Haddis and Bekure (2017:9) suggest the 456/2005 proclamation does not provide sufficient details and guidance on how to embark upon comprehensive and integrated land use planning and how to regulate the utilization of different lands for various purposes and has a limited options for implementation. This has impacted the regions’ ability to expand and create detailed laws on land use planning. Currently, the GoE is engaged in a process of revision of the land proclamation.

Over the last 50 years, the GoE has taken major steps to issue and improve its Federal and Regional land policies, and it is currently embarking on a larger process to develop a national integrated land use policy and legal framework to set the basis for all of Ethiopia’s land policies. With support from international donors, the GoE has also sought to improve its early efforts at large-scale land certification by adding ‘second-level’ land certification, which introduced parcel-level mapping and a computerized land registration system, among other activities. The United States Agency for International Development (USAID) has provided substantial support for these second level land certification efforts in the four rural Highlands Regions in Ethiopia (Tigray, Amhara, Oromia, and the Southern Nations, Nationalities, and Peoples’ Region (SNNR)), and other major donors have continued this work. Specifically:

1) Thefirst second-level certification program funded by USAID was the Ethiopia Strengthening Land Tenure and Administration Program (ELTAP) (2005-2008). ELTAP worked with Ethiopian district[[2]](#footnote-2) land administration agencies to map, register, and certify land, as well as included other activities to strengthen land governance.

2) The second program, designed as a successor to ELTAP, also funded by USAID, was the Ethiopia Land Assistance Program (ELAP) (2008-2013). ELAP continued the work of ELTAP and completed the certification process for many of the households that had not finalized the certification process under ELTAP.

3) A third program, the United Kingdom/Department for International Development (DFID)-funded Land Investment for Transformation (LIFT) project (2013-2020), is a large-scale continuation of USAID’s previous two programs. LIFT is finalizing second-level certification for 14 million land users in the four regions.

Along with the ELTAP and ELAP projects, USAID commissioned a rigorous impact evaluation (IE) to measure their impact on beneficiaries for a range of outcomes and to assess what additional benefits the new ELTAP/ELAP approaches provide as compared to the earlier low-cost methodology. The initial findings were presented in a Final Evaluation Report (FER) by Cloudburst Consulting in 2016, using panel data from households surveyed in 2008 and again in 2015. The Cloudburst study found a 10% increase in the likelihood of households in the treatment group taking out any credit for farming purposes, and a small increase in the average amount of credit obtained (Cloudburst 2016:2). In addition, the study found an 11% increase in the likelihood of a household believing they have a heritable right to bequeath their land, relative to households with no certification, or first level certification, and an 11% increase in the likelihood of a wife possessing land in her name, as well as a 44% increase in a wife deciding which crops to grow on land in her possession. However, it did not find evidence of substantial effects for the other studied outcomes (namely tenure security, land disputes, land rental activity, or soil and water conservation).

The Cloudburst evaluation’s findings contributed to the knowledge around the impacts of formal land documentation on household-level development outcomes, but the Final Evaluation Report notes limitations that may have led the IE to underestimate the impacts of ELTAP/ELAP. Specifically, the anticipated statistical power was reduced by low variability in outcome variables, questionnaire design issues, and inconsistencies in implementation among the treatment group. In addition, because of the incremental nature of land tenure changes, the report also suggested that a follow-on study could reveal impacts that were more responsive to a longer time frame.

The current IE will utilize panel data from households surveyed in 2007/2008 and 2015 for an impact evaluation that aimed to identify the impact of second level land certification implemented by USAID and the GoE through the ELAP and ELTAP programs relative to the first level certification, some of which may have received other interventions that have taken place in Ethiopia after 2015, including the LIFT program. The number of households that may have received interventions from several programs, including LIFT, will be determined after data collection. The 2021 study will exclude households located in the Tigray region as well as households that were not randomly included in the 2007/2008 and 2015 samples. Notably, households that received their certificates under ELAP. The ELAP program certification efforts targeted areas with high agricultural production and investment potential. According to the Cloudburst (2016) evaluation report, the criteria used to select implementation areas for second-level certification activities under ELAP were: a) High agricultural potential in terms of high rainfall, irrigation, and cash crops grown; b) High land transaction in terms of renting and sharecropping; c) Good infrastructure and access to markets; and, d) Presence of agricultural investors (all woredas were deemed to have met this criterion). The fact that the program did not select participants randomly limits the ability of using rigorous econometric techniques. To mitigate the risk that this brings to the quality of the study, these households will not be included in the 2021 data collection. In addition, the team decided to exclude the Tigray region form the study based on safety concerns given the recent political unrest and concerns about the effect of such unrest on the farming season and other economic activity in the region. During 2020, Ethiopia has suffered the effects of the COVID-19 pandemic and political unrest that concentrated in the Tigray region. Given the confluence of these two events, conducting research in the region may not necessarily capture the effects of certification on economic outcomes which is the center of this research. The data collectors will follow COVID-19 mitigation strategies during the different stages of the study (See COVID-19 Protocol in Annex VII)

Comparing the newly collected 2021 data to the 2007/2008 and the 2015 data has many benefits. First, this impact evaluation will allow us to identify the longer-term effects of land certification on men and women in Ethiopia over a 13-year period. Specifically, this study will address a gap in the literature on long-term impacts of formalizing land rights. While it is commonly hypothesized in the land evaluation literature that the impacts of strengthening land rights on outcomes such as investment, household income, and food security unfold gradually over time (Lisher 2019), it is rare for any impact evaluation-type study to be able to measure impacts over such a long period. To our knowledge, the only statistically rigorous empirical research that measures causal impacts of a land tenure intervention over a similar timeframe considers titling in an urban slum in Peru.[[3]](#footnote-3) Thus, this study would be the first to consider the long-term impacts of land rights certification in a rural agricultural setting.

In addition, this IE hopes to generate valuable knowledge about the effects of land certification on women’s economic empowerment. By adding this additional wave of newly treated beneficiaries, the IE will be able to analyze multiple waves of uptake and perform a more rigorous statistical analysis. Such results may also allow for more rigorous results by subgroup, especially women. This analysis is encouraged by the Women’s Global Development and Prosperity (W-GDP) Fund that will potentially use the results of this analysis to design interventions leading to create an enabling environment for women land rights in Ethiopia. Note that the previous rounds of the evaluation also applied a version of the survey to wives. This 2021 wave will also collect data from wives in accordance to the design used in 2007/2008 and 2015. To ensure that this follow-on study responds to programming needs and contributes to the advancement of women’s economic empowerment in Ethiopia, Landesa conducted a scoping trip to identify demands from potential users of this follow-on study in the government, donors, and CSO community in Ethiopia. The results of this scoping trip suggest that a gender analysis of the impact of the land certification programs is relevant. In addition, the scoping trip identified strong interest in learning about the potential impacts of land certification on women’s decision making and on intimate partner violence (IPV)[[4]](#footnote-4). In addition to the surveys, this 2020 wave of data collection, will include qualitative data that will provide with in-depth insights about the most significant changes that women and men identify as a result of having certified land. Gaining knowledge around women’s experiences with land certification, in terms of not only economic outcomes but also the underlying mechanisms will also help build on and provide context for findings from a range of studies[[5]](#footnote-5) that have found positive effects on women’s outcomes, in terms of agricultural productivity, food security, and participation in the rental markets.

## PROGRAMS OVERVIEW

Three similar land certification programs have been implemented in succession in the four Highlands regions of Ethiopia[[6]](#footnote-6), all of which were implemented on a single dataset of households that were originally surveyed as part of the rollout of the ELTAP program. This provides a unique opportunity for a longer-term and more rigorous impact evaluation of second-level certification efforts. The three programs, their aims, and timing were as follows:

### THE ELTAP PROGRAM

In 2005, implementation of the ELTAP activity began. The main objective of ELTAP was to assist the GoE to implement a land certification system that provided holders of rural land use rights with robust and enforceable tenure security in land and related natural resources, in the four Highland states of Amhara, Oromia, SNNP, and Tigray (USAID, 2008). Four ELTAP components supported this objective: 1: Land Certification and Administration; 2: Public Information and Awareness; 3: Security of Land Tenure and Dispute Resolution; and 4: Policy Development and Program Integration.

ELTAP worked with Ethiopian district land administration agencies to introduce ‘second-level certification’, which consisted of a computerized land information system, with computerized digital mapping of parcels, cadastral registration, and the issuance of land certificates. Under ELTAP, second-level cadastral surveying and registration of rural land started in Amhara and Oromia regions during the first quarter of 2007, followed by Tigray and SNNP regions in the second quarter. Through the end of the program in May 2008, a total of 147,449 households were visited in 24 woredas (six woredas in each of the four regions), and the boundaries of 704,754 parcels were mapped using GPS devices and registered with the land administration office. However, ELTAP encountered delays in issuing certificates, so only 56% (396,017)[[7]](#footnote-7) of the parcels mapped under ELTAP received their second-level certificates in 2008. Data was collected on all intended beneficiaries of the ELTAP program in 2008, when beneficiaries were just receiving their certificates, and data was collected from the same households again in 2015. This sample of households, discussed in detail in Section 2, will form the sample for our data collection and impact evaluation.

### THE ELAP PROGRAM

Following the end of ELTAP in 2008, USAID support continued under the ELAP program, which ran through 2013. Under ELAP, USAID worked with the Government of Ethiopia to strengthen and enhance rural land tenure security and land administration through programming that was similar to that of ELTAP (USAID, 2013). Like ELTAP, ELAP implemented second-level certification. ELAP reached 63% of its target, certifying 192,184 parcels from 89,178 households (USAID, 2013). However, under ELAP, new certification efforts focused on areas with high agricultural production and investment potential. This focus meant that the households selected for ELAP that were used in the Cloudburst impact evaluation were not truly randomly selected and this may have biased its findings. Because of delays in the ELTAP program, ELAP also facilitated completion of the certification process for many of the *randomly selected* households that were intended for ELTAP programming (and surveyed in 2008). In fact, nearly a third of the parcels that ELAP certified were for households that were originally selected for the ELTAP program (USAID, 2008; USAID, 2013). Fortunately, our study sample will be able to include these randomly selected recipients who were intended to receive the ELTAP certification (but received ELAP certification) in its analysis. (This is discussed in detail in Section 2,)

### THE LIFT PROGRAM

Other programs worked in the same regions, and potentially with the same land users, that were part of the original ELTAP-studied households. One of the largest programs is the DFID-funded LIFT program, which began in 2013 and was completed in 2020. This program collaborated with the GoE to continue to significantly scale-up second-level certification in ELTAP program areas. In fact, LIFT has ‘treated’ many households included in the previous evaluation and data collections as ‘control’ households, so these beneficiaries can now be included in this current IE as an additional treatment group to enhance our analysis. Like ELAP/ELTAP, LIFT included land mapping, registration, and second-level certification. LIFT has demarcated 14.1 million land parcels and distributed 10.1 million certificates throughout 140 districts (out of 242[[8]](#footnote-8)) in the Ethiopian Highlands. In ELTAP and ELAP, the programs provided parcel-based certificates where landholders received multiple certificates based on the number of parcels they have in Oromia, Tigray and SNNP. However, this is different in Amhara Region where household/holding based certification is practiced. Under LIFT, each landholder receives certificates, rather than a household-level certificate. The LIFT program has also placed special emphasis on protecting the land rights of women jointly, with their spouses, or individually.

# 2.0 METHODS

## EXISTING DATASETS THAT WILL INFORM THIS IMPACT EVALUATION

This follow-on study will include a new round of quantitative data collection on the existing panel dataset of the original ELTAP program’s treatment and control households, except for households in Tigray and ELAP households. This existing panel dataset was created through two quantitative survey data collections: (a) one conducted by the Ethiopian Economics Association (EEA) in 2008; and (b) another conducted by Cloudburst in 2015 on the same households. Table 1 presents a summary of the data and research methods utilized in each round of data collection. In both waves of data collection the researchers collected data using a head of the household survey and a wife survey that was applied to the head of household (male or female) and their spouse, or wives in case of polygamous households. The 2015 data collection revised the version of the wives component of the household questionnaire, included a parcel roster, and content to elicit the extent to which wives are engaged in decision making (i.e. what to grow, how production is used, whether or not to rent-out land, etc.). The instruments used are presented in their entirety in Annex I.

The 2021 wave of data collection will use survey questionnaires that will elicit information to clearly identify the year and potentially the program under which each household received their certificates. The questionnaires will also include questions about services that the certified individuals may have received when they received their certificate. This will allow the researchers to potentially identify the program under which people receive their certificate. However, it is noteworthy that the current study does not aim to attribute specific effects to each program but to the certification efforts in Oromia, SNNP and Amhara.

### 2008 Data Collection

The 2008 data collection employed two surveys: a head of household survey with both males and females, and a wives’ survey with the spouses in the male-headed households. EEA’s 2013 report provides descriptive statistics and discrete analysis of the quantitative data.[[9]](#footnote-9) The 2008 survey was planned to survey 3,600 ELTAP households across 284 kebeles (village clusters) in the four regions (Amhara, Oromia, SNNP, and Tigray). In 2008, the survey included 2,754 wives, in 2,643 male headed households and 698 women in female headed households (Ethiopian Economics Association/Ethiopian Policy Research Institute 2008).

The household surveys gathered data on:

* land and natural resources management,
* household consumption and food security,
* farm and household income,
* farm investment and technology use, and engagement in land markets,
* household head’s knowledge about the land policy, laws and regulations, and the land certification program,
* household head’s perceived and actual tenure-insecurity including risk of land takings, appropriation, and
* land-related disputes / conflicts.

All wives in male-headed, monogamous, and polygamous, households responded surveys. The survey yielded data on 39 variables on women’s land right issues. 2,754 wives, including 111 wives in polygamous marriages, responded the wives’ surveys in the 2008 survey. The wives’ surveys had fewer questions than the head of household’s surveys. The wives survey had 41 questions about tenure security, knowledge of their land rights, conflicts and land rental markets.

### 2015 Data Collection

In order to perform an IE of the ELTAP and ELAP programs in 2015, Cloudburst conducted a new round of household and wives’ surveys with the 2008 survey respondents. The 2015 survey collected data from 3,412 wives in 3,412 male headed households and 914 women, in female headed households. Cloudburst made some additions to the 2008 heads of household survey and the wives surveys, making sure they would yield data that could be compared to the existing data. The new questions/variables included:

* land-related disagreements,
* use of land to obtain credit,
* temporary and permanent changes in land tenure,
* accessibility of the woreda land administration office,
* parcel-level detail on household land holdings, land rental and sharecropping activity,
* parcel rosters to the wives’ survey to gather more specific data on decision making over land use and management as well as on disagreements, and
* household details, including global position system (GPS) coordinates and follow-up contact information.

Table 1, below, summarizes the 2008 and 2015 quantitative data collections that will be used a panel dataset to for follow-up in the planned 2021 data collection. The table also shows the original sampling selection, and how the datasets were used for analysis.

###### TABLE 1: QUANTITATIVE DATA COLLECTIONS UTILIZED FOR 2020 IE

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Collection Wave/****Participants** | **Data**: tools, sample size (treat/control)  | **Sampling selection**  | **Methods of data analysis** |
| 2008/HH’s assigned to ELTAP  | 1) **Head of HH surveys**Treatment =24 woredas X 8Kebeles X15 HH’s=2880 Control=24 woredas X3 KebelesX10 HH’s= 720 Total =3600 2) **Wive(s) Surveys:** with first and second wife (if such exists) in male headed-households: Total= 2754 wives (including 111 second wives from polygamous HH’s) | **1st level** – within each of the 4 regions, 6 woredas (*provided by client)***2nd level**, within each woreda, stratified systematic selection of kebeles based on distance from capital/roads (3 categories); 8 treat/3 control chosen per kebele For control, 3 kebeles randomly chosen per woreda**2nd level** - within selected treat /control kebeles, selection of HH’s using stratified random sampling proportionate to the number of male and female-headed households in the kebele (15 per treatment kebele, 10 per control) | -Descriptive statistics-Discrete analysis (ANOVA, Chi-squared) |
| 2015/HH’s assigned to ELTAP that received treatment from ELTAP or ELAP | 1) **Head of HH survey** 2518 treatment 1085 control Total = 3603 2) **Wive(s) survey**: 2754 wives  | Panel, using heads of HH and wives from 2008 and data collection | -Comparison of averages-DiD with matching |
| 2021/HH’s assigned to ELTAP that received treatment from ELTAP, ELAP, or LIFT | 1) **Head of HH survey** **Treat**: 2989 (target)**Control:** 613 (target)2) **Wive(s) survey**: 2754 wives (target) | Panel, using heads of HH and wives from 2008 and 2015 data collections | -CTE (continuous treatment effect)-DiD with matching (longer-term outcomes)-PSM (matching with DHS for the study of violence) |

In both the 2008 and 2015 data collections, qualitative research also sought to gain a deeper and more nuanced understanding of land tenure security for the land users in the studied communities. Key informant interviews (KIIs) and surveys captured the overall picture of land tenure security, the process of land registration and the benefits and expectations of the land users.Through focus group discussions (FGDs), the data collections sought detailed qualitative information on land tenure security, as well as the effects and benefits of land certification. Researchers often use qualitative data to inform the analysis of quantitative data as well as to better understand contextual factors. The 2015 study only collected key informant interviews that were used in the analysis for the 2015 report but are not relevant for the 2021 analysis when new key informant interviews will be collected. The 2008 study included key informant interviews and focus group discussions with findings that were analyzed and incorporated in the 2008 baseline report. The 2021 evaluation will include data collection of new qualitative data that will be later anonymized to protect the privacy and safety of participants.

## RESEARCH QUESTIONS, HYPOTHESIS, AND INDICATORS

### Research Questions

The research questions for this follow-on study focus on the long-term impacts of certification, and how these impacts evolve over time. Note that comparing impacts of second level certification to first level certification was the primary focus of the original Cloudburst IE. Our follow-on analysis will include a similar comparison, but our main emphasis will be on comparing impacts of receiving certificates at different points in time, rather than distinguishing between impacts of different forms of certification. The impacts will include household-level economic and social outcomes, as well as women’s empowerment. The analysis will also look at the impacts of certification on intimate partner violence (IPV). The main research questions are thus as follows:

A1) What are the long-term effects of receiving land certification on well-being and economic outcomes for households? How do these differ by household characteristics such as gender of the household head, poverty status, or region?

A2) How do the impacts of certification on the various outcomes unfold over time? Which (if any) impacts occur in the short-term, but are not sustained? Which (if any) impacts are not observed in the short term, but occur over longer periods of time?

A3) What are the effects of receiving land certification on female empowerment and intra-household decision-making in (male-headed) households in rural Ethiopia?

A4) What are the effects of receiving land certification on the risk of women experiencing intimate partner violence or other domestic violence in male-headed households in rural Ethiopia? Are there any circumstances under which certification lead to domestic violence, and what could be done to mitigate it?

During the scoping trip, the first author of this report conducted key informant interviews with 20 individual stakeholders[[10]](#footnote-10) suggested by the USAID/ Ethiopia mission and identified through snowball sampling methods, including members of the USAID Ethiopia mission, members of programs funded by DFID and USAID on land tenure security and representatives from DFID, GIZ, UN Women, land government officials, and representatives of CSO. One of the goals of the interviews was to identify ways in which the 2021 impact evaluation could inform policy and program design. We asked these stakeholders to identify topics that could make the impact evaluation more useful for their programming and advocacy for women land rights in the context of creating an enabling environment for women’s economic empowerment. The interviewed stakeholders mentioned interest in outcomes that have already been considered in the previous rounds of the impact evaluation, including the exploring the links between land certification and investment, or productivity, access to credit, rental markets, tenure security and decision making. All of them also expressed interest on including the link between land certification and intimate partner’s violence, which some participants called domestic or spousal violence. Thus, generating evidence on whether land certification is connected to domestic violence would be a valuable addition to the impact evaluation from the perspective of all the stakeholders we interviewed. Responding to this, the team is adding the following questions to the data collection and the analysis of the IE during the 2021 round of data collection:

* Questions related to women specific issues and outcomes: Are women with their name in certificates more likely to make decisions pertaining to their individual, household, and community well-being than those without certificates? Is there a higher or lower incidence of intimate partner violence among the women who hold certificates? If so, why? Are women getting their names in certificates for good, productive land? Do women with land certificates know the rights conveyed by their certificates?
* Questions related to processes: What aspects of the land certification process, including about the formation of the land management committees, or any other of the processes involved in the certification of the land, have enhanced or limited women’s ability to get land certificates in their name and/or their participation in decisions related to land management?
* Questions related to access to justice: Are women who have certificates in their names better able to solve land-related conflicts? What are the main barriers for women’s lack of access to justice in cases of land conflicts experienced by women?

### Hypothesis and Indicators

This follow-on study will estimate impacts on men and women in beneficiary households across ten categories of hypothesized outcomes detailed in Table 2. Nearly all the quantitative outcomes and the associated indicators we will use in this data collection and analysis were used in the previous evaluation. The only new outcome category being used in this research is on intimate partner’s violence (IPV), a form of gender -based violence. The definition and operationalization of gender-based violence used in this IE complies with the World Health Organization guidance and the definition in the United States Strategy to Prevent and Respond to Gender-Based Violence Globally, 2016 Update. [[11]](#footnote-11) The new module is an adaptation of the tested module used in the Demographic and Health Survey to collect these data globally and in Ethiopia.[[12]](#footnote-12)

###### TABLE 2. EVALUATION HYPOTHESES AND INDICATORS

**Hypothesis-1: Certification increases women and men’s use of to credit Indicators:**

**Indicators**

1. Total amount of credit obtained in Birr, in past 24 months
2. Total amount of credit households took for farming purposes in past 24 months
3. Reported limitations/barriers faced by women (qualitative)
4. Whether women and men used any form of land certificate to secure credit in the past 24 months

**H-2: Certification reduces the number of household-level land-related disputes and dispute resolution time**

**Indicators:**

1. Number of land-related disputes
2. Mean severity of disputes experienced by the men and women
3. Average time taken to resolve disputes experienced by men and women

**H-3: Certification increases the likelihood that men and women engage in land rental and sharecropping activities**

**Indicators:**

1. Number of parcels rented out by households
2. Amount of land (ha) rented out by households
3. Whether / proportion of households renting land out to non-relatives or friends
4. Amount of land that households rent out to non-relatives or friends
5. Monetary payment received in Birr/ha for land rented out in last 12 months
6. Monetary payment in Birr/ha for the largest parcel of land rented out

**H-4: Certification increases household investment in productive assets**—**short and long-term**

**Indicators:**

1. Household average number of trees planted per ha
2. Household average share of area planted with perennial crops
3. Household average use of improved farm inputs per ha

**H-5: Certification results in households more likely to invest in soil and water conservation (swc)**

**Indicators:**

1. Average length of hedges, bunds, and ditches constructed
2. Average length of soil bunds stabilized with vegetation
3. Average number of water retention structures constructed

**H-6: Certification increases the productivity of plots**

**Indicators:**

1. Average yield/ha, per plot
2. Average investment in agricultural inputs/yield

**H-7: Certification results in stronger perceived tenure security for women and men**

**Indicators:**

1. Women and men with the belief that they have rights to bequeath land under their possession
2. Women and men with the belief that the land certificate program will have a positive impact on:
	1. Tenure security
	2. Land investment
	3. Land renting
	4. Security of entering business transactions
	5. Fallowing
3. Women and men with the belief that land currently under its possession will remain under their control over the next 5 years
4. Women and men with the belief that land redistribution within the kebele is unlikely over the next 5 years

**H-8: Certification increases women’s involvement in land management and land related decisions**

**Indicators:**

1. Hectares of land (proportion of household’s total landholding), and number of parcels within the household:
	1. That are possessed by husband and wife jointly, or wife only
	2. Which have a certificate held by husband and wife jointly, or wife only
	3. For which decisions on which crops to grow is made by husband and wife jointly, or wife only
	4. For which decisions on land transfers to others are made by husband and wife jointly, or wife only

**H-9: Joint land certification increases women’s involvement in land management and decision-making.**

**Indicators:**

1. Number of women who:
	1. typically decide how the money she earns will be used.
	2. typically decide how her husband's(partner's) earnings will be used.
	3. typically makes decisions about health care for herself.
	4. typically makes decisions about major household purchases
	5. typically makes decisions about visits to family or relatives
2. Cases of women with effective participation in the land management committees (qualitative)

**H-10: Joint Land certification decreases women’s risk of experiencing Intimate Partner Violence (IPV) from husbands.**

**Indicators:**

1. Number of households in which:
	1. Women have experienced IPV in households with land certificates, compared to matched data from DHS to create a comparison control group.
	2. Respondents believe that increasing the number of women who have land will create conflicts between husband and wife (qualitative)
	3. Respondents’ believe that women with land certificates in their names, are more likely to experience IPV (qualitative)

To answer these questions, we will conduct a new round of quantitative data collection using two instruments like the previous collections: 1) head of household surveys, and 2) wives’ surveys. For the surveys, we will (a) revisit households and areas included in the previous rounds (See Annexes III and IV for survey questionnaires). For the wives’ survey, we will have two versions: a short (basic) version, and a longer version, with added questions about gender-based violence. (Sample selection for these instruments is discussed in Section 3, below). In addition, we will use Kebele Authority Surveys (KAS) applied to village and kebele level formal and informal leaders and authorities (see Annex V for KAS guides) that will help better understand contextual factors.

We will also collect and analyze qualitative data to better understand contextual factors, explanations, and mechanisms related to the quantitative analyses. We will use focus group discussions (FGDs) with women and men that responded to the survey and agree to join the FGDs (see Annex VI for FGD Guides). These qualitative and quantitative instruments are designed to allow us to best explore the research questions of this impact evaluation, as shown in Table 3, below.

######  TABLE 3: RESEARCH QUESTIONS AND ASSOCIATED RESEARCH INSTRUMENTS

|  |  |
| --- | --- |
| **RESEARCH QUESTION** | **INSTRUMENT(S)** |
| A1) What are the long-term effects of receiving land certification on the well-being and economic outcomes (of men and their wives) in *male-headed* households in rural Ethiopia? | * Head of household surveys (with male heads of HH)
* Basic wife(wives) survey – given to all wives in surveyed male-headed households (from perspective of a wife)
* FGDs with male heads /wives
 |
| A2) What are the long-term effects of receiving land certification on the well-being and economic outcomes of *female-headed* households in rural Ethiopia? | * Head of household surveys (with female heads of HH)
* FGDs with female heads of HH
 |
| B1) What are the effects of receiving land certification on female empowerment and intra-household decision-making in (male-headed) households in rural Ethiopia? | * Basic wife(wives) survey – given to all wives in surveyed male-headed households (from perspective of a wife)
* FGDs with male heads and wives
 |
| B2) What are the effects of receiving land certification on the risk of experiencing domestic violence in male-headed households in rural Ethiopia?B3) What are the gender related impacts of land certification in cases of divorce and death of the husband, how far having women’s name on the certificate increased women’s wellbeing and economic outcomes after divorce or death of their husband? | * ‘Long Survey’ addendum–(contains additional questions on gender- based violence; given to one wife in each male-headed household *(see selection process in 8. a, Sampling section, below)*
* FGDs with men and women, especially wives
 |
| What are the most significant changes from the programs and the current barriers to using the land certificates? | * FGDs with men and women
 |
| To identify kebele characteristics that may have affected the outcomes of the certification including: 1. Main demographic and economic characteristics of the villages; weather and land types and main agricultural production. 2. What programs and other services are available in the village: education, health, economic, women-focused? | * Kebele Authority Survey (KAS) with kebele/village elders, land management authorities, religious leaders or other informal authorities
 |

##

## SAMPLING

### Quantitative Sample

The data collection will attempt to survey all 3,602 households that were surveyed in both the 2007/8 and 2015 data collections (the panel dataset) except for the households in Tigray. For all households, a survey will be given to the head of the household, either male (73% of the sample) or female (27% of the sample). If the head of household is male, a wives’ survey will also be administered to the wife (or wives), if more than one exists. In all cases, the team will interview the same wives that participates in the previous data collection efforts (Wives’ surveys were carried out with 2,754 wives in the 2008 survey (only 111 of these were second wives.) In the case of polygamous households, both wives will be administered the wives’ surveys, as in the previous evaluation. (See Annex 7 for the recruitment scripts for each type of survey participants). Because we are adding questions about gender-based violence, we will not ask these questions to more than one wife for safety reasons. So, in households with more than one wife, the interviewer will roll a die for each wife, and the wife with the smaller number will take the basic version of the wives’ survey, and the one with the larger number will take a longer version with additional questions on gender-based violence.[[13]](#footnote-13) (More details on all study instruments and sample selection are in Table 4, below).

These previously surveyed households will consist of a) households that received second-level land certification through one of the three programs (‘treatment’) (ELTAP, ELAP, or LIFT), or b) households that still have not received certifications (‘control’). The dataset will therefore contain four “treatment arms” (1) ELTAP, 2) ELAP, 3) LIFT, or 4) Control, as shown in Table 4, with time since receiving second level certificates ranging from one year for some of the recent LIFT beneficiary households to 12/13 years for some of the ELTAP beneficiaries.

###### TABLE 4. SAMPLE SIZES FOR CONTINUOUS TREATMENT ANALYSIS

|  |  |  |
| --- | --- | --- |
|  |  | **Treatment Arms** |
| Study ARM | Receipt of Second-LEvel Certificate | Years since cert. AT 2015 DATA COLLECTION | Years since Cert. AT 2020 DATA COLLECTION | Approx. Number of Households |
| ELTAP treatment households that received certificates through ELTAP | 2008  | 8-11 | 12-15 | 1,410 |
| ELTAP treatment households that experienced delays and received their certificates later through ELAP | 2008-13  | 2-5 | 7-12 | 1,108 |
| ELTAP treatment households that have received second-level certificates through other programs | n/a | n/a | n/a | n/a |
| ELTAP control households that have received second-level certificates through LIFT | 2017-19  | n/a | 1-3 | 471 |
| ELTAP control households that have received second-level certificates through other programs | n/a | n/a | n/a | n/a |
| ELTAP control households that still have not received second-level certificates | n/a | n/a | n/a | n/a |

It should be noted that the control group will differ from that of the previous evaluation. Scoping work for this activity identified the need for modifications to the sample that was used in the previous Cloudburst analysis. Most importantly, the ongoing DfID-funded LIFT project has provided certificates to approximately 45% of the original 2008 control group. As a result, these households can no longer be used as pure controls, and we are therefore classifying the ELTAP control households that received treatment under LIFT as ‘treated.’ While this prevents us from making the clean comparison between long-term recipients of certificates and a control group, including the households who have more recently received certificates through the LIFT project will allow us to yield nuanced information on how long it takes for the different effects of land certification to materialize. (For a more detailed discussion of the continuous treatment methodology we use to assess program effects, see Section 3.)

Kebele Authority Surveys (KAS) - EconInsight will work with government officials in the regional land administration committees and agriculture offices to identify, contact and gain access to appropriate kebele level for the kebele authority surveys. EconInsights will survey these authorities individually at a location mutually agreed upon with the respondents. Kebele authorities will be identified contacting the appropriate authorities at the National and Woreda level. The interviews with kebele authorities have not been designed, in this data collection, or in the previous data collection waves in 2007/8 and 2015, as instruments to collect personal information from the authorities. Instead, these surveys collect information about the kebeles. Therefore, the kebele authorities may or may not have participated in the previous data collection efforts. However, they should be authorities that have lived in the kebeles since 2007 so they can give information about any programs that have worked in the kebeles during the study timeline. The kebeles will be the same that in 2007/8 and 2015.

Potential Attrition

This end line survey involves collecting information from households that were sampled in 2007/8 and 2015. It is critical for the design that the same households that were interviewed in the previous waves of data collection are interviewed during this end line data collection. The baseline data that were collected in 2007/8 and 2015 are available for this study and have GPS information at the household level. EconInsights, the Survey Firm that will conduct the data collection in 2021, will have access to these baseline data datasets as necessary to facilitate the end line data collection activities. Portions of these baseline datasets contain sensitive information. As a result, the Survey Firm will need to ensure confidentiality is maintained will need to adopt data management protocols to ensure the confidentiality of respondents is maintained.

As part of the field sampling plan, the Survey Firm will need to develop a ground plan for locating those same households using the information contained in the baseline datasets. In addition to the name of the household respondent the dataset provides the region, zone, woreda, kebele, and village. In some of these areas the administrative boundaries (i.e. at woreda or kebele) have been re-drawn in which case it will be necessary to reconcile historic boundaries as they applied during the baseline with current administrative boundaries.

In preparation for the fieldwork, Landesa assessed potential attrition that identified over 90% of the households from the previous 2015 data collection (See Annex 8 Summary of the Potential Attrition Report). Local consultants hired by Landesa interviewed kebele and woreda-level key informants from the previous areas of data collection and visited subset of the previous surveyed households from the four regions between December 2019 and January 2020. Utilizing short questionnaires designed by the impact evaluation PIs, informants were interviewed from two randomly selected woredas/districts that were part of the previous 2015 data collection. Experts in the district agriculture office and village administrators were also interviewed to get their ideas regarding feasibility of the upcoming impact study. None of the stakeholders interviewed foresaw potential problems with the impact evaluation or the feasibility of this follow-on. This assessment also provided helpful guidance to consider in the data collection, specifically around (1) the importance of carefully navigating the complex political scenario in regions with potential, or recent conflicts, (2) the need to explain the data collection process and the impact evaluation to local authorities at the kebele-level in order to gain their support to identify households, and (3) to ensure planning for the logistics of translating to regional languages, as well as for specific mobility and safety-related difficulties. The Landesa PIs also conducted a scoping trip between January 13 and January 26, 2020, aimed to provide information to finalize the design of the impact evaluation and support the design of associated communication and learning activities related to the enabling environment for women’s land rights. The scoping and design work included assessing the potential for sample attrition and displacement of sample households and identifying any other challenges that may arise in the field. All the interviews conducted during the January 2020 scoping trip confirmed the findings of the consultants’ field assessment that suggests that the rate of response for the surveys for heads of households in the Amhara, Oromia and SNNP region will be higher than 95%, whereas the Tigray region may have a lower response rate, given conflicts in 2019. The study was delayed because of COVID-19. In December 2020 and January 2021 EconInsights conducted a second feasibility study by conducting KII with woreda and kebele level authorities in all the 4 regions of the study. In this second study, EconInsights identified a positive context for the data collection. However, it also identified unpredictable potential effects of the 2020 political conflicts in the Tigray region on the economy of the region that may affect the ability of the research team to study the economic effects of certification. Therefore, the potential scientific gains of conducting data collection in Tigray do not outweigh the risks that the study may impose on participants or data collectors. This led to the exclusion of the Tigray region off the study. The feasibility studies in the Amhara, Oromia and SSNP suggest that the potential response rate is acceptable without Tigray and suggests that there are no sources of known bias that could affect attrition in the four regions.

### Qualitative Sample

The qualitative sample will consist of participants in Focus Group Discussions (FGD).

**Focus group discussions (FGDs).** For FGDs the team will ask participants from various sub-groups of interest *from among the survey participants* if they voluntarily accept to participate. There will be 8 FGDs with women heads of households, 8 FGDs with first wives, 4 FGDs with second wives (less than the first group because the 2008 survey only identified 111 second wives); 4 FGDs with men between 18 and 29 years of age;[[14]](#footnote-14) and 4 FDGs with men 30 years old and more. Survey households are geographically quite dispersed, even at the village level, so FGDs will be organized at the village level to make participation realistically convenient and safe for participants. The team will recruit FGD participants beginning with the first surveyed village and continuing until we reach the number of required participants for each type of FGD (e.g. female heads of household, first wives, etc.). However, if the number of participants is not reached within one village, we will continue asking within the next village. Participants in FGDs must be 18 years of age or older, must not be government workers, and must not be impeded to decide to participate freely (in judgment of trained data collector).

Details for all quantitative and qualitative samples and corresponding instruments are detailed in Table 5, below.

###### TABLE 5. DETAILS ON STUDY INSTRUMENTS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TYPE OF DATA COLLECTION ACTIVITY** | **TARGET POPULATION/****INCLUSION CRITERIA** | **NUMBER OF DATA COLLECTIONS** | **NUMBER OF PARTICIPANTS/TOTAL DATA COLLECTION** | **INFORMATION SOUGHT** |
| Head of household surveys | Heads of household interviewed in previous rounds of data collection (2007/2015) | 1 in each of the four regions | Apx. 3600 (apx. 972 women and 2628 men) | 1)Basic demographic information; 2)Information related to land holdings3) Effects of land certification on well-being and economic outcomes of men/women |
| Long wives’ survey | Wife of head male of household interviewed in this study (or one randomly selected wife per household in the case of polygamous marriages) | 1 in each of the four regions | Apx. 2800 | 1) Effects of land certification on well-being and economic outcomes of men/wives2)Effects of receiving land certification on female empowerment and intra-household decision-making 3) Effects of receiving land certification on domestic violence  |
| Short wife/wives’ survey  | * Wives of the household head in polygamous households who were not randomly selected for the Long wives’ survey above.
 | 1 in each of the four regions | Apx. 111 (based on number of second wives interviewed in 2015) | Same information as long wives’ survey, but short survey excludes #3) questions on domestic violence |
| Kebele Authority Survey | * Informal or formal authority in the district/village for over 10 years
 | 1 per kebele | 240 | Basic social, demographic and program/services information |
| FGD | * Female heads of household
 | 8 - 2 per region | 40 – 56 (8 FGDs\*5-7 participants) | Most significant changes from programs, current barriers to using the land certificates |
| FGD | * Women first wives or wives in monogamous unions
 | 8 - 2 per region | 40 – 56 (8\*5-7 participants) |
| FGD | * Women second wives\*\*
* Age 18 or older
* Participated in the survey
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |
| FGD | * Men between 18 and 29 years of age
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |
| FGD | * Men older than 29 years of age
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |

\*\* less than the first wives because the 2008 data collection only identified 111 second wives

* 1. ***Inclusion/Exclusion Criteria:***

Survey households were already chosen in the previous rounds of data collection. However, it should be noted:

* + We will attempt to administer the head of household survey to the same head of household, if such exists. If there is a new household/family living in the location instead of the participant in the 20017/2008 and 2015 survey, we will not interview that person.
	+ We will also attempt to administer the wife) survey to the same wife/wives if such exists. If there is a new wife, we will interview her instead.
	+ In the case of polygamous households, both wives should answer the questionnaires, as in the previous evaluation. However, we are adding questions about gender violence, so we will not ask these questions to more than one household member for safety reasons. So, in households with more than one wife, the interviewer will roll a dice for each wife, and the wife with the smaller number will take the basic version of the questionnaire, and the one with the larger number will take a longer version with additional questions on gender violence. The interviewer will not announce how or why the surveys differ but will simply state that one questionnaire is longer. The interviewer will also instruct the wife who is answering the longer questionnaire not to discuss the gender-based violence questions.

The inclusion/exclusion criteria for study data collection activities and participants are detailed in Table 4, below.

**Table 4. Inclusion/Exclusion Criteria**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type of data collection activity** | **Target population/****Inclusion Criteria** | **Exclusion Criteria** | **Number of data collections** | **Number of participants/total data collection** | **Information sought** |
| Head of household surveys  | * Heads of household interviewed in previous rounds of data collection (2007/2015)
* Men and women
* Age 18+ years
 | * Under 18 years
* Government workers
* Decisionally impaired persons\*
 | One in each of the four regions | Apx. 3600 (apx. 972 women and 2628 men) | 1)Basic demographic information 2) Information related to land holdings3) Effects of land certification on well-being and economic outcomes of men/women |
| Long wives’ survey | * First wife or only wife of head male of household interviewed in this study
* First wife or only wife of male head of household interviewed in previous round who has died
* Women
* Age 18+ years
 | * Men
* First wife or only wife of male head of household who has died did not take part in the previous survey or there is a new male head of household
* Underage 18
* Government workers
* Decisionally impaired persons\*
 | One in each of the four regions | Apx. 2800 | 1) Effects of land certification on well-being and economic outcomes of men/wives2)Effects of receiving land certification on female empowerment and intra-household decision-making 3) Effects of receiving land certification on domestic violence  |
| Short wives(s) survey  | * Second wives (if such exist) of male head of household interviewed in this study
* Second wives (if such exist) of male head of household interviewed in previous round who has died
* women
* Age 18+ years
 | * Men
* Second wife of male head of household who has died that did not take part in the previous survey or there is a new male head of household
* Underage 18
* Government workers
* Decisionally impaired persons\*
 | One in each of the four regions | Apx. 111 (based on number of second wives interviewed in 2015) | Same information as long wives’ survey, but excludes questions on domestic violence |
| KAS (Kebele Authority Survey) | * Informal or formal authority in the district/village for over 10 years
* Men and women
* Age 18+ years
 | * Have lived in the district

/village for less than 10 years* Less than 18 years
 | 1 per kebele | 240 | Basic social, demographic and program/services information |
| FGD | * Women head of households
* Age 18+ years Participated in the survey
 | * Underage 18
* Government workers
* Decisionally impaired persons\*
 | 8 - 2 per region | 40 – 56 (8 FGDs\*5-7 participants) | Most Significant changes from programs, current barriers to using the land certificates |
| FGD | * Women first wives or wives in monogamous unions
* Age18+ years
* Participated in the survey
 | 8 - 2 per region | 40 – 56 (8\*5-7 participants) |
| FGD | * Women second wives\*\*
* Age 18+ years
* Participated in the survey
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |
| FGD | * Men
* Between 18 and 29 years of age
* Participated in the survey
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |
| FGD | * Men
* Older than 29 years of age
* Participated in the survey
 | 4 – 1 per region | 20 – 28 (4\*5-7 participants) |

\*\* less than the first wives because the 2008 baseline only identified 111 second wives

\* Participants with a perceived cognitive disability, determined by, in the judgement of the individual obtaining consent, a lack of understanding of the informed consent form or study procedures will not be enrolled in the study.

* 1. ***Conducting the Research Activities***

Detailed recruitment and data collection procedures are in Annex 7 in the IRB protocol. Part B, Section Three “Recruitment Process” contains detailed information on data collection location/privacy and confidentiality procedures. Overarching data collection procedures for this project are as follows:

1. **Quantitative/ Digital data collection (Surveys)**: The surveys (i)head of household (male and female) surveys, ii) wives surveys and iii) kebele authority surveys (KAS)) will be administered digitally by teams of EconInsights enumerators using SurveyCTO on tablets. Enumerators will work in pairs consisting of a male and female interviewer.
2. **Head of household (male and female) surveys** will be carried out by teams of enumerators (one male/one female) approaching the head of household (HH) respondents at their homes, using contact lists (names, addresses) from the 2015 data collection. If the head of HH at the address is the same individual surveyed in the 2015 data collection, we will survey him or her using a using Computer Assisted Personal Interview (CAPI) tablet with SurveyCTO (if not, we will not interview the present head of HH).
3. **Wives** **surveys.** Women for the wives’ surveys will be recruited from within the male-headed households at their homes (See appendix 15 and 16 with the recruitment script to be used to recruit wives for this study, also approved by IRB) First, the wife or wives will be identified by the male head of household when completing the first item in the survey, the roster of all HH members. If the male head of HH at the address is the same as in the 2015 previous survey data collection, and he agrees that we may ask his wife or wives, we will attempt to interview his wife or wives, even if they are not the same wife or wives as the previous round. Interviewing new wives will provide with important information about their land rights. Wives will be surveyed by the female enumerator using CAPI as follows:
	1. Only wives (monogamous households): If there is only one wife, she is given the long version of the survey (with questions on domestic violence).
	2. First and second wives (polygamous households): If there is more than one wife (only about 4% of HH’s in previous data collection had this case), the wives roll a die, and the one with the largest number gets the long survey (with questions on domestic violence), and the one with the second largest number takes a shorter survey (same as long survey, except no questions on domestic violence).
4. Kebele Authority Surveys (KAS) - EconInsights will work with government officials in the regional land administration committees and agriculture offices to identify, contact and gain access to appropriate kebele level for the kebele authority surveys. EconInsights will survey these authorities individually at a location mutually agreed upon with the respondents.

Detailed data management procedures are in Part B, Section 10, “Data Management and Record Retention,**”** below. Overarching data management procedures for the quantitative survey data collection are as follows:

* All survey information will be encrypted at all points of the data flow process, from point of origin (interview) to storage on local devices and to the cloud. (EconInsights encrypts digital information using SurveyCTO.)
* Once an enumerator marks a completed questionnaire as “finalized”, the contents will be encrypted using a key. From this point forward, the questionnaire can no longer be edited. Data is then transmitted to the SurveyCTO server using 3G or another internet network. Data will be encrypted in transit using SSL certificates (Secure Sockets Layer) so that encrypted questionnaires are doubly-encrypted (once with the encryption key, and then again with SSL). When the data is downloaded by and end-user, data is again doubly-encrypted by the key and SSL. Once data is finally stored in a computer, the end-user can use the encryption key to decrypt and read the data.
* When sharing data folders and files with Landesa, items will be stored in a secured folder on one of Landesa’s drives with access restricted to only the PI’s (principle investigators), research assistants at Landesa, and Landesa’s IT administrators. The IT administrators will be asked to sign a confidentiality disclaimer and will only have the minimum privileges required to carry out their responsibilities.
* Monitoring of data security procedures: EconInsights Field Manager will ensure that teams of enumerators follow these data security protocol in the field. Similarly, the Research Manager will ensure that all digital data containing PII is kept in encrypted and secured folders.

2) **Qualitative/Paper-Based Data Collection**: Focus group discussions (FGDs) will be carried out and recorded using paper-based transcripts by the EconInsights team.

**FGDs (all types)**: The EconInsights enumerators will recruit FGD participants from among the survey participants, by asking them if they voluntarily agree to participate. Survey households are geographically quite dispersed, even at the village level, so FGDs will be organized at the village level to make participation realistically convenient and safe for participants. The team will recruit FGD participants beginning with the first surveyed village and continuing until we reach the number of required participants for each type of FGD (e.g. female heads of household, first wives, etc.). However, if the number of participants is not reached within one village, we will continue asking within the next village.

For FGDs, the local data collection agency will find appropriate ways to mobilize participants to a safe, private, convenient place or will cover the costs of such mobilization. The meeting place may be a school or some other space that is close and safe in each region. We will not prescribe the location until we reach the field because this will be determined in consultation with the women who agree to participate.

Detailed data management procedures are in Section B, part 10, “Data Management and Record Retention,**”** below. These procedures are harmonized with WHO and USG recommendations for data management to protect women respondents for IPV research. Overarching data management procedures for this qualitative FGD data collection are as follows:

* EconInsights will record conversations orally unless the participants are not comfortable with this as per their informed consent forms.
* EconInsights will have a full list of participants. However, they will not identify participants using their names in each of the FGDs or IDIs. The FGDs will only identify the age group and sex of participants to allow analysis.
* EconInsights will not show the contents of the interviews, or surveys, to any individuals other than the specific participant that is answering the survey. Participants will not be able to see the questions that other household members will answer, or review/approve their answers.
* EconInsights data collectors will double check to do everything possible to ensure privacy and the ethical implementation of the questions including checking their physical surroundings for the presence of others to ensure that there are no people in the area you are sitting in and all areas within hearing distance to ensure that there are no persons anywhere near them who will be able to hear and understand their questions and ensure that nobody can read their notes or manipulate their tablets.
* Note that data collectors will be trained to ensure not to proceed with the interview if they have not ensured privacy. This is extremely important because lack of privacy can cause problems to the participant and can even endanger his/her life. If data collectors cannot ensure privacy, regardless of the reason, they will be trained to stop interviews and note that in the survey and explain what happened.
* EconInsights will code the written transcripts of FGDs using Atlas Ti, translate them into English, and send the anonymized coded transcripts to Landesa for analysis and write up.
* Transcripts and any accompanying field notes will only have an identification number and no names of participants.
* EconInsights will always keep any documents that may include names of participants separate from the responses of participants.
* Upon return from the research site, all paper data will be secured in a locked filing cabinet in the data collector’s (EconInsights’) offices.
* Paper data will be destroyed after data has been transferred to an electronic form.
* No audio or visual recording will take place as part of the data collection.

#

# 3.0 DATA ANALYSIS

Like the baseline and mid-line, this IE will measure the impacts of second-level certification using quantitative and qualitative research methodology. Analysis of the data will proceed along three lines:

1. Quantitative analysis of outcomes that were included in the baseline and first endline surveys using continuous treatment and panel data methods;
2. Quantitative analysis of gender-based violence outcomes using statistical matching methods to incorporate national level public data, and
3. Quantitative analysis of KAS data to complement the household data analysis and inform the researchers knowledge of the context; and
4. Qualitative analysis to better understand contextual factors, explanations, and mechanisms related to the quantitative analyses.

## ANALYSIS 1: QUANTITATIVE ANALYSIS OF OUTCOMES

The focus of this IE is to evaluate the impact of certification on the set of outcomes that were identified for the Cloudburst evaluation as elaborated in section 2. This component of the analysis will employ two methods: a continuous treatment approach, and estimation of a matched difference-in-difference model to replicate the methodology used in the Cloudburst evaluation report. These are described in further detail below:

1. Continuous Treatment: As described above, LIFT implementation will mean that approximately 45% of the original control group will have received certificates and can no longer be used as controls in a DID analysis. As a result, these households can no longer be used as pure controls, so that a difference-in-difference analysis similar to the approach in the Cloudburst report would no longer be feasible. While this prevents us from making the clean comparison between long-term recipients of certificates and a control group, including the households who have more recently received certificates through the LIFT project will allow us to yield nuanced information on how long it takes for the different effects of land certification to materialize. Since this third round of data will introduce considerable variation in the time since beneficiary households received their certificates, such variation will allow the analysis to use a continuous treatment approach instead of difference-in-difference. Like difference-in-difference, continuous treatment provides statistically rigorous findings on the causal impact of a program on outcomes. However, continuous treatment modelling does not rely on an untreated comparison group and can provide insights about the evolution of impacts over time.

In addition, two aspects of the data make it particularly well-suited for a continuous treatment approach. First, the timing of implementation and data collection mean that the observations are relatively well distributed across different values of time since receiving certificates. Having many points in time at which there are substantial numbers of observations improves the accuracy and reliability of continuous treatment estimators. Secondly, the 7 years between certification and 2015 data collection for early ELTAP beneficiaries corresponds well to the 13 years between certification and this 2021 data collection for the later LIFT beneficiaries. This similar time frame of comparison allows us to better control for other factors that might have differed over time and strengthens our ability to do causal inference using the continuous treatment approach.

Most IE methods (such as difference-in-difference) conceptualize treatment as a binary variable- each unit of analysis has been either treated or not treated, and the analysis estimates average change in outcomes for the treated group relative to the non-treated comparison group. Conversely, a continuous treatment is one for which there is variation in the “level” of treatment that treated households or individuals have received, and the analysis estimates how average outcomes change in response to different levels of treatment. The classic example is a medicine that is administered in varying dosages to participants in a study, with the analysis then evaluating the effects of different dosages on outcomes.

In the evaluation literature, the amount of time that has elapsed since receiving the treatment is sometimes used to implement a continuous treatment modelling approach. Here, the amount of time since receiving the treatment is analogous to the “dosage” of the treatment that has been received. One example of this is Carter et. al. (2019), who investigate the impacts of a farmer support program in Nicaragua. They find that several key outcomes, including household income and quantity of farm capital, increase over time and are not adequately captured by a binary treatment indicator.

A general continuous treatment model setup is as follows:

Ti ∈ T = (tmin,tmax)

Yi = {Yi(t) : t ∈ T }

Where:

Tis the range of treatment levels (time since treatment in our case) in the data,

Yi(t) is a function that describes the treatment eﬀects for unit i for any given t ∈ T

The continuous treatment model then estimates the function:

µ(t) = E(Yi(t)) for t ∈ T

Where µ(t) is the average treatment effect across all treated units for any given t ∈ T.

The validity of using time since treatment as a continuous treatment variable requires three main assumptions and conditions.

1. There must be substantial variation in the time since treatment across the treated units.
2. Time since treatment must be sufficiently “random” in the sense that a) the data allow us to control for any factors that may have affected what units were treated when while simultaneously influencing our outcomes of interest, and b) time since treatment cannot be predicted with certainty based on other characteristics of the treated units.
3. There must be a theoretical or conceptual expectation that time since receiving the treatment affects the outcomes in a systematic way.

Our data fit these conditions and assumptions well. As shown in Table 4., our data includes sizable samples of households that have received certificates from ELTAP and ELAP, thus providing substantial variation in time since treatment as required by 1). 2) is more difficult to assess, but our information about program implementation suggests that the assumption of quasi-randomness is reasonable, except for the ELAP selected beneficiaries. This is because the ELAP implementation areas were specifically selected because they were believed to have particularly high agricultural potential. As a result, the analysis would not be able to distinguish between the effects of having received a certificate during the ELAP timeframe, and the effects of living in a high potential agricultural area. Thus, as described in the previous section, we do not include ELAP selected households in the analysis. Finally, for 3), it is commonly hypothesized in the land tenure impact evaluation literature that impacts of strengthening land rights on outcomes such as investment, household income, and food security unfold gradually over time, rather than immediately following program implementation (e.g. Lisher 2019).

1. Matched Difference-in-Difference: As described above, we expect that the continuous treatment model will provide the most analytically valuable findings, and the implementation of LIFT in many of the original comparison areas would limit the statistical power of following the matched difference-in-difference in the Cloudburst evaluation report. However, there is still some value in replicating the approach used by Cloudburst in their preferred specification in the evaluation report as a supplement to the continuous treatment model. The main implication of the loss of power for the difference-in-difference model is that it may fail to find statistically significant impacts on some of the outcomes that were in fact affected by the program. However, for those outcomes for which a replication of the matched difference-in-difference model in the 2015 evaluation does find statistically significant impacts, comparing those results to the Cloudburst evaluation results will be useful. This is because replicating the 2015 methodology means that differences in the measured impacts can be more confidently attributed to changes in the impacts over time, whereas differences in the findings of the 2015 evaluation and the continuous treatment model could be an artifice of the modeling approach. This component thus serves to triangulate some of the findings from the continuous treatment approach.

## ANALYSIS II: QUANTITATIVE ANALYSIS OF INTIMATE PARTNER VIOLENCE OUTCOMES USING STATISTICAL MATCHING METHODS

In addition to the outcomes included in the 2008 and 2015 datasets, this IE will also estimate outcomes on intimate partner violence (IPV). As described above, the impacts of certification on IPV were of particular interest to several stakeholders in Ethiopia on the recent scoping trip, and this relationship is of interest to USAID as well, although IPV-related outcomes were not included in the original set of outcomes or in the 2008 or 2015 surveys. In the absence of baseline data, matching methods such as propensity score matching are a methodological alternative that can be used under certain conditions to generate rigorous evidence of the causal impacts of a program. Generally, one of the main disadvantages of matching methods is that they require large datasets- in particular, the comparison group typically needs to be at least three times the size of a typical comparison group for an IE using more standard panel data methods (e.g. difference-in-difference). Fortunately, in our case we can employ matching methods without incurring costs of such a large-scale data collection effort by utilizing data from the Demographic and Health Survey (DHS) survey. DHS covers 16,650 households, with a sample of 15,683 women between 15 and 49 years. This is a large sample and includes a module on gender-based violence, as well as other household and individual characteristics that can be used to perform the matching. Thus, we will incorporate the DHS gender-based violence module into our survey, as well as additional DHS questions that could be useful for matching. These questions can be incorporated with only minimal additional length to the survey.

There is a variety of different statistical matching methods that can be used for program evaluation. The earliest and perhaps still most widely used of these is the Propensity Score Matching (PSM) approach developed by Rosenbaum and Rubin (1983). Since then, a range of variations and alternatives have been proposed in the literature; a useful summary is provided by Sekhon (2009). Which matching method is most appropriate in each case depends on characteristics of the data. Thus, we will defer identifying the matching method we will use for the analysis until after data collection, so that we can more accurately assess which method is best suited to our data.

The analysis will also look for patterns in different types of households depending on whether women experience IPV or not and depending on whether there is a link between the risk of experiencing IPV and having their name in land certificates. Where applicable, the analysis will recommend complementary policies or remediation measures that could mitigate these impacts. To the extent the data suggest that a fuller exploration of these patterns could yield actionable recommendations, the analysis will recommend a follow-on qualitative data collection and analysis for this purpose.

## ANALYSIS III: QUALITATIVE ANALYSIS

The qualitative analysis will triangulate quantitative findings using the most significant change (MSC) technique in FGDs with men and women in order to respond to two specific questions:

1. What are the most significant, or most important, positive and/or negative, changes that women experienced associated to the land certification?
2. What are the main barriers and opportunities to the realization of women’s land rights?

The MSC technique allows researchers to collect stories that identify and explain what participants perceive as the most significant changes (Davis and Dart, 2003). The facilitator in the FGD will start by eliciting responses about the impact of the land certification process on the lives of beneficiaries regarding several key dimensions in the hypotheses (for example, access to credit, ability to make decisions, amount of money that is invested in land, land-related conflicts, requirements to marry, gender-based violence, etc.). FGDs participants are invited to share stories about these changes within their village.

We will generate descriptive and analytic codes before the FGDs using the hypothesized outcomes of land certification listed in Section 2. The interviews will be recorded, transcribed and coded by local data collection team using Atlas Ti. The data collection firm will send anonymized coded transcripts-translated in English- to Landesa for analysis and write up.

The qualitative analysis will also shed light about the contextual and structural factors that affect women’s land rights and their access and effective use of the land certificates. To answer these questions, we will analyze existing social norms and structures and will explore the expected pathways linking women’s names on land certificates and economic and socially desired outcomes.

# 4.0 ETHICAL CONSIDERATIONS AND DATA MANAGEMENT

The IRB committee of the International Center for Research on Women (ICRW) conditionally approved the IRB protocol, prepared by Landesa and EconInsights, in accordance with the US Federal Regulation 45 CFR 46 (the Common Rule). This study also complies with Landesa’s ethical guidelines for research. The conditions of approval will be removed after the submission of an updated timeline, and the inclusion of a Community Assessment confirming that national and local government has not put restrictions in place on movement or businesses during the expected staff training and data collection period due to COVID. In the assessment, we will review national/local government categorization of risk zones/clusters, contacts with community leaders to discuss and explain research and seeking written permission to enter communities for data collection purposes and contacts with key informants within communities to gauge the current climate within communities regarding in-person data collection or visits from groups of individuals who may not be part of the community. The assessments informed the updated COVID risk mitigation protocol.

The IRB protocol will also contain measures to mitigate political risks through participation in this study in the country and localities where the study will take place to ensure that the risk of participating in this study does not out weight the benefits of such participation following the no-harm principle.

Specific Data Collection Procedures for this project are as follows:

1. Digital data collection: the KAS, the household and wives’ surveys will be administered digitally by EconInsights using SurveyCTO on tablets.
* All Personal Identifiable Information (PII) will be encrypted at all points of the data flow process, from point of origin (interview) to storage on local devices and to the cloud. (EconInsights encrypts digital information using SurveyCTO.)
* Once an enumerator marks a completed questionnaire as “finalized”, the contents will be encrypted using a key. From this point forward, the questionnaire can no longer be edited. Data is then transmitted to the SurveyCTO server using 3G or another Internet network. Data will be encrypted in transit using SSL certificates (Secure Sockets Layer) so that encrypted questionnaires are doubly-encrypted (once with the encryption key, and then again with SSL). When the data is downloaded by and end-user, data is again doubly-encrypted by the key and SSL. Once data is finally stored in a computer, the end-user can use the encryption key to decrypt and read the data.
* When sharing data folders and files with Landesa, items will be stored in a secured folder on one of Landesa’s drives with access restricted to only the PI’s (principle investigators), research assistants at Landesa, and Landesa’s IT administrators. The IT administrators will be asked to sign a confidentiality disclaimer and will only have the minimum privileges required to carry out their responsibilities.
1. Paper-Based Data Collection: FGDs will be recorded using paper-based transcripts by the local data collector (EconInsights) team. EconInsights will subsequently code the written transcripts using Atlas Ti, translate them into English, and send the anonymized coded transcripts to Landesa for analysis and write up.
* Transcripts and any accompanying field notes will only have an identification number and no names of participants.
* Any documents that may include names of participants will always be kept separate from the responses of participants.
* Upon return from the research site, all paper data will be secured in a locked filing cabinet in the data collector’s (EconInsights’) offices.
* Paper data will be destroyed after data has been transferred to an electronic form.

**Monitoring of data security procedures.** The Field Manager will ensure that teams of enumerators follow EconInsights Data Security protocol in the field. Similarly, the Research Manager will ensure that all digital data containing PII is kept in encrypted and secured folders.

**Ethical considerations in Intimate Partner Violence data collection**. The IPV component raises an additional set of ethical considerations that require careful attention. The World Health Organization has developed a set of guidelines for addressing these issues, and we will provide close oversight of our data collection firm to ensure that these guidelines are followed. The enumerator training will include specific components on how to handle sensitivities and other situations that may arise from conducting fieldwork on IPV. Enumerators will also provide interviewees with contact information of local organizations that provide support for women who have experienced IPV or other forms of domestic violence.

# 5.0 DELIVERABLES & CALENDAR

**IMPACT EVALUATION REPORT**

This impact evaluations’ report and associated analysis will be completed approximately six weeks following receipt of the final dataset. In addition to investigating average treatment effects, the report will also include a discussion of treatment effects that differ with respect to other variables (e.g., whether or not the woman’s name has been included in the certificate, the region or how much time has passed since receiving the certificate).

**POLICY BRIEF**

We will prepare a policy brief that highlights the most policy-relevant findings from the evaluation. This brief will be informed by consultations with the Ethiopia mission following the impact evaluation analysis.

PEER REVIEW ARTICLE

Contingent to budget approval in a reputable journal.

**FULLY DOCUMENTED DATA SETS**

We will deposit fully documented data sets with USAID ILRG program following the final round of data collection. The format, reporting detail, and organization of the data and any documentation will conform to the general reporting standards to be adopted for all data collected under the Task Order. Along with reporting standards, we will implement safeguards to ensure that personally identifiable or otherwise sensitive information is removed prior to the datasets being made public. The fully documented datasets will be made public following approval from USAID.

CALENDAR

|  |  |
| --- | --- |
| Activity | Start- End month |
| IE Design |  |
| Revisions/addendum to pre-analysis plan | November 2020 |
| Submit and Respond to USAID feedback on pre analysis plan, IPV identification of variables, detailed analysis plan, analysis of existing data | December 2020 |
| Initial data analysis- replicate IE findings, write code to merge & construct variables in new dataset | November-December 2020 |
| Conducting community assessment to ensure COVID and Political risks are managed | November-December 2020 |
| IRB submission to remove conditions of approval | January 2020 |
| Finalize instruments. Pre-testing, double checking, support programming and translating | February 2021 |
| Survey Preparation |  |
| Contract for fielding signed with survey firm | January 2021 |
| Adaptation of survey questionnaire to tablet software | January 2021 |
| Developing training materials and training data collectors | February 2021 |
| Field work and data management planning | February 2021 |
| Survey Implementation |  |
| Field staff recruitment and selection | March 2021 |
| Training of field staff | March 2021 |
| Field work and data entry | March-May 2021 |
| Dataset creation, qualitative data coded, documentation, and delivery | May 2021 |
| Final field report from survey firm | June 2021 |
| Analysis and reporting |  |
| Draft report and preliminary analysis | May-July 2021 |
| Draft report for USAID review | August 2021 |
| Final report | September 2021 |

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1. In Ethiopia, land certificates (first or second level) cannot legally be used as collateral. Therefore, in the 2014 ELTAP/ELAP evaluation, the evaluation team included the hypothesis that the second level certification might increase credit if it is used to secure a loan through informal means. See: Monchuk, Daniel et al (2014) USAID/Ethiopia Land Tenure Administration Program (ELTAP) and Ethiopia Land Administration Program (ELAP): Impact Evaluation Design. [↑](#footnote-ref-1)
2. In Ethiopia, regions are divided into woredas (administrative districts), and woredas in turn contain kebeles (villages). [↑](#footnote-ref-2)
3. See Field, Erica (2007) “Entitled to work: Urban property rights and labor supply in Peru” Quarterly Journal of Economics 122 (4) pp. 1561-1602. Several other papers have been published using the same data. [↑](#footnote-ref-3)
4. According to the World Health Organization, Intimate partner violence refers Threatened, attempted or completed physical, sexual or psychological harm by a current or former partner or spouse. This includes physical violence, sexual violence, threats of physical or sexual violence, and psychological or emotional violence. IPV can occur among partners of any sexual orientation and does not require sexual

intimacy. (WHO 2016: 36). The Ethiopia 2016 DHS report, uses the WHO recommended IPV module and calls IPV “spousal violence.” See page 290 in Central Statistical Agency/CSA/Ethiopia and ICF. 2016. *Ethiopia Demographic and Health Survey 2016*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

IPV is a type of Violence Against Women (VAW). VAW refers to “any act of gender based violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or private life”. This broad definition includes, but is not limited to, violence occurring in the family, violence within the general community, trafficking and forced prostitution, and violence perpetrated or condoned by the state. (WHO 2016:36) [↑](#footnote-ref-4)
5. In 2016, a paper by Bezabih, Holden and Mannberg found SLLC certification under the SLMP had positive effects on productivity from the Amhara region, particularly by female-headed households, indicating that it tends to relax constraints related to tenure security by a relatively greater margin than that experienced by male-headed households. A study by Ghebru and Holden (2013) found significant positive effects of land certification on female-headed households’ food security and nutrition. In a third study, Deininger et al. (2011) found that land certification programs in Ethiopia enhanced women’s participation in the land rental market in the Tigray region more so than for men. [↑](#footnote-ref-5)
6. The highlands include the Amhara, Tigray, SNNPR, and Oromia regions where smallholder farming is the main occupation in densely populated villages. This contrast with the lowlands in Afar, and Somali regions, and South Omo in SNNPR, with predominantly pastoral

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7. This number is recorded in: Monchuk, Daniel et al (2014) USAID/Ethiopia Land Tenure Administration Program (ELTAP) and Ethiopia Land Administration Program (ELAP): Impact Evaluation Design. In: <https://pdf.usaid.gov/pdf_docs/PA00T682.pdf> (Last accessed on December 17, 2020) [↑](#footnote-ref-7)
8. Total woreda figures compiled from Ethiopia’s Central Statistical Agency website <http://www.csa.gov.et/> [↑](#footnote-ref-8)
9. While this data was gathered as a baseline for a future impact evaluation, program implementation constraints, such a non-random selection of sites for the intervention, meant that the program’s evaluation had to resort to other sources and methods as we discuss later. [↑](#footnote-ref-9)
10. This assessment did not aim to include a representative sample of informants. The number of key informants interviewed was affected by the availability of the stakeholders to meet in person, during the assessment trip, or afterwards virtually. [↑](#footnote-ref-10)
11. The USAID Gender-based Violence (GBV) is an umbrella term for any harmful threat or act directed at an individual or group based on actual or perceived biological sex, gender identity and/or expression, sexual orientation, and/or lack of adherence to varying socially constructed norms around masculinity and femininity. It is rooted

in structural gender inequalities, patriarchy, and power imbalances. GBV is typically characterized by the use or threat of physical, psychological, sexual, economic, legal, political, social and other forms of control and/or abuse. GBV impacts individuals across the life course and has direct and indirect costs to families, communities, economies, global public health, and development.” USAID. United States strategy to prevent and respond to gender-based violence globally: 2016 update. Washington, D.C; 2016. [↑](#footnote-ref-11)
12. https://dhsprogram.com/publications/publication-DHSQM-DHS-Questionnaires-and-Manuals.cfm [↑](#footnote-ref-12)
13. The interviewer will not announce how or why the surveys differ, but will simply state that one questionnaire is longer. The interviewer will also instruct the wife who is answering the longer questionnaire not to discuss the gender violence questions. [↑](#footnote-ref-13)
14. Using the definition of Youth in <https://www.usaid.gov/policy/youth> [↑](#footnote-ref-14)