

Advancing Women's Participation in  
Livestock Vaccine Value Chains in Nepal,  
Senegal and Uganda

**Monitoring, Evaluation,  
Learning (MEL) Framework**

Version 01

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## Abbreviations

BMGF	Bill & Melinda Gates Foundation
CAHW	Community animal health worker
DVO	District veterinary officer
GAC	Global Affairs Canada
GITA	Gendered Intersectional Transformative Approach
IDRC	International Development Research Centre
LIVT	Leveraging Intersectionality in Livestock Vaccine Value Chains for Gender Transformation (LIVT) in Nepal, Senegal, and Uganda (original name of UF's project)
LVIF	Livestock Vaccine Innovation Fund
LVVC	Livestock vaccine value chain
M&E	Monitoring and Evaluation
MEL	Monitoring, evaluation, learning
NCD	New Castle Disease
NGO	Non-governmental organization
PPR	Pestes des petit ruminants
UF	University of Florida
VVC	Vaccine value chain

## Introduction

University of Florida (UF) in partnership with the Canadian International Development Research Institute (IDRC) is implementing a three-year project called *Advancing Women's Participation in the Livestock Vaccine Value Chain in Nepal, Senegal and Uganda*.<sup>1</sup> The goal of the LIVT project is to understand women's roles and participation in the selected poultry and small ruminant value chains by evaluating issues of intersectionality on women's involvement in the livestock vaccine value chains (LVVCs) and providing capacity development to community animal health workers (CAHWs) and/or district-level veterinary officers (DVOs) or services to increase female livestock keepers' participation in LVVCs.

The primary objectives of this project include:

- O1: To design a gender and intersectional mapping tool for small ruminant and poultry vaccine value chains, and testing it in Nepal, Senegal, and Uganda.
- O2: To evaluate the impacts of gender, intersectionality and other site/country specific characteristics (socio-economic, technical, political) on women's entry and effective participation in and benefits from the LVVC.
- O3: To remove barriers for women's entry and participation in the LVVC by applying GITA through various modes of training and innovative interventions that will lead to their inclusive participation in LVVC.

The project is divided into three stages in all three target countries. The purpose of the first stage is to map: in Nepal, Senegal, and Uganda - the LVVC of the peste des petits ruminants (PPR) vaccine, and additionally, the LVVC of New Castle Disease (NCD) in poultry in Senegal. The primary focus of the mapping is to determine how the current vaccine value chains (VVCs) function in terms of delivering vaccines to or involving female livestock keepers in the vaccine distribution value chains, as well as the related attitudes and perceptions of various LVVC actors on women's involvement in LVVCs. Additionally, the mapping is designed to capture how gender intersects with other socio-cultural factors such as ethnicity, age, socioeconomic status, education, religion, livelihood, etc. The second stage will focus on designing a gendered intersectional transformative training program for CAHWs, DVOs and other community-focused veterinary services (including vaccination) to help them engage or better serve the female livestock keepers. The third stage will focus on systematic review and meta-analysis of findings from stages 1 and 2 of project activities to identify the main levers and barriers at each node of the LVVC and develop an analytical framework to assess factors underlying women's limited engagement in LVVCs and strategies to overcome the barriers.

## Theory of Change

Fatal livestock diseases are found to be a common issue negatively affecting both individual farmer sustainability and the global economy. Vaccination can prevent the endemic livestock diseases. However, in most of the developing countries low education and logistical constraints make vaccine delivery difficult and expensive to adopt (Meena et al., 2008; Mariner et al., 2012; Gitonga et al., 2016; Kiara et al., 2017). The farmer's perceptions of new technology vary by gender and, in developing countries, gender inequality is an issue within households and communities (Doss, 2001; Bagnol, 2009). Another aspect that it is gaining more attention among development researchers and practitioners is the issue of intersectionality, that is how the

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<sup>1</sup> The original project title is *Leveraging Intersectionality in Livestock Vaccine Value Chains for Gender Transformation (LIVT) in Nepal, Senegal, and Uganda*. In this document, the following abbreviation will be used to distinguish the UF project of interest, i.e., The LIVT project.

intersection of gender and age, or gender and caste or ethnicity, livelihood strategies and other intersectionality identifiers affect women's access and participation in the LVVC, and of the compounding social, economic, institutional and intersectional factors that influence women's ability to participate in the LVVC and benefit from it. This situation limits women's adoption of vaccines for livestock disease management, causing high levels of livestock morbidity and mortality, thus resulting in adverse effects on individual income, health, and nutrition, leading to economic insecurity.

Therefore, there is a need to identify the constraints in adoption of the vaccine technology through research and develop initiatives to enable the smallholder livestock systems to adopt the technology. The current LIVT project aims to address the vaccine adoption with the gender dimension of the issue by establishing a greater understanding of the role of women in the LVVC, which can lead to an increased engagement and empowerment of women livestock keepers. The UF LIVT project aims to alleviate the issue of livestock disease management by application of a Gendered Intersectional Transformative Approach (GITA) to improve women participation in the LVVC.

Our Theory of Change (Figure 1) is based on our research hypothesis, otherwise rephrased as (the assumption that): Women may increase their use of animal vaccines, or derive greater benefits from participating in the VVCs, due to a complex and interrelated set of factors not always related to their positionality as female. If LIVT, through GITA, assists with understanding and addressing gender and intersectional issues that affect women's access to and use of livestock vaccines along the small ruminant and poultry VVCs, then women, their households and communities, and their livelihood systems will benefit. Access, acceptance, and adoption of livestock vaccines will increase, as an effect of better understanding of which factors, such as gender, caste, ethnicity, class and livelihood, are most pertinent to the women in our studied contexts. This in turn, will lead to greater women's and men's empowerment and more equitable decision-making in households and communities vis-a-vis livestock vaccine use. Women's empowerment can also be expected to lead to improved family health and nutrition, especially of young children, although this project's time and resource frame is insufficient to firmly establish such causality.

This new understanding will be used to develop, identify, and adapt appropriate and relevant innovations and policies to increase women's engagement in the LVVC by removing barriers for women's entry and participation to promote sustainable improvements in incomes and nutrition of livestock holders and consumers. A set of preconditions are required for our project to achieve its long-term goals; these include changes in knowledge, attitudes, skills, and aspirations, which will lead to changes in practices of key stakeholders from the agricultural research and development sectors in the three target countries.

The required preconditions that will lead to the desired changes are as follows:

- a) The participants will expand the use of intersectional mapping methodology (aka tool);
- b) The participants will have increased knowledge on the role of gender and intersectionality;
- c) The participants will have increased understanding of GITA and business skills as well as opportunities for co-locating services (e.g., human health with animal health);
- d) The vaccine service providers will gain awareness about women's distinct roles and intersectionality characteristics in LVVCs;
- e) The vaccine service providers will adopt effective modes of information transfer to women on LVVC's;

- f) The vaccine service providers will increase their delivery of vaccine services to both men and women livestock keepers.

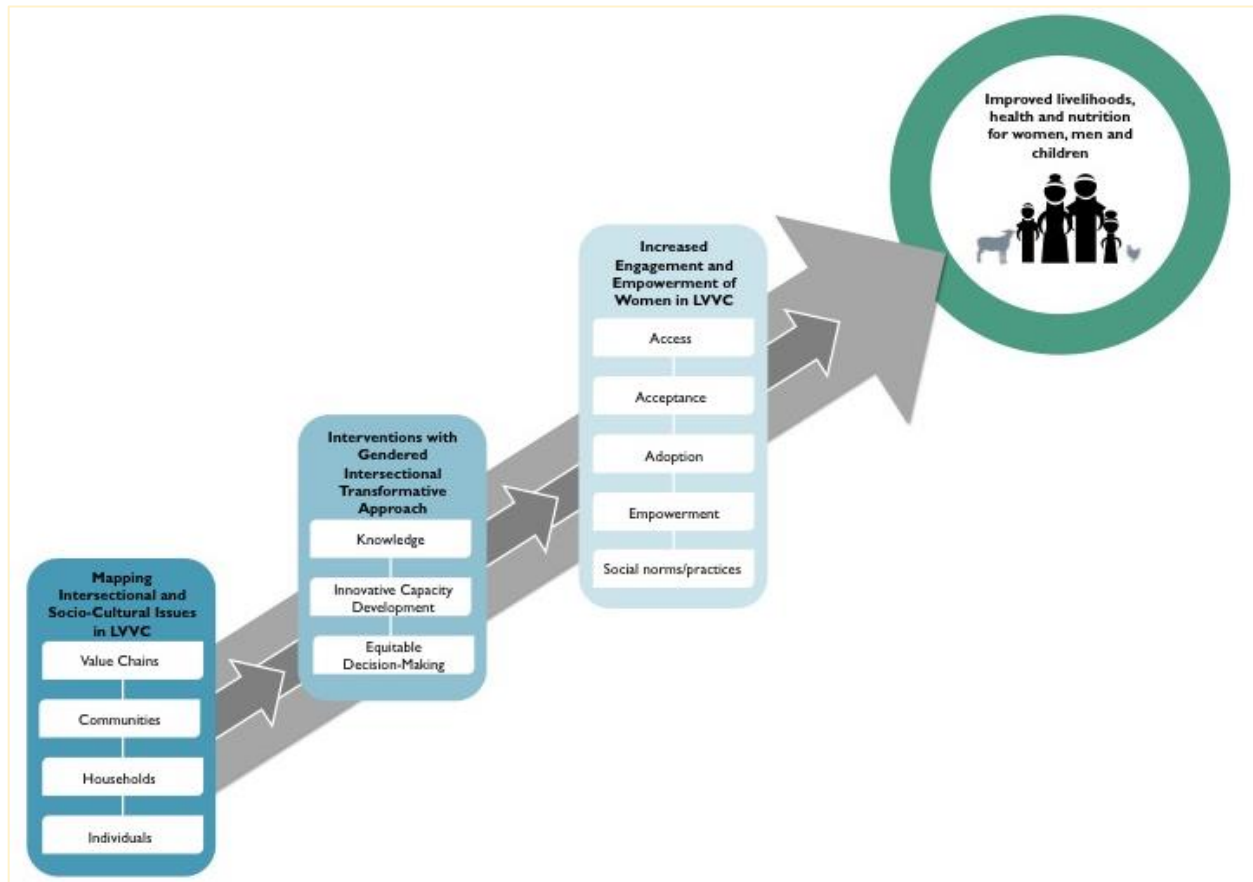


Figure 1: LIVT Project Theory of Change

To achieve above-stated preconditions, the LIVT project will implement a process of change with funds, effort, and support from the IDRC. The infrastructure, expertise, efforts, and support of the upper administration, faculty and students at UF, will be combined with the efforts and expertise of in-country project coordinators, as well as faculty, staff and students from target country universities (Agriculture and Forestry University (AFU) in Nepal; Universite Cheikh Anta Diop de Dakar (UCAD) in Senegal, and Makerere University (MU) in Uganda). The first practical change for success is to expand the use of intersectional mapping tool by in-country stakeholders to increase access and control over resources in the LVVCs. For the purpose of developing the intersectional mapping tool, students from UF and in-country partners will be trained in mapping methodology and data collection. The data will include intersectional categories based on research questions specific to the country, as in Nepal it is about engaging caste and gender, in Uganda, it is ethnicity and gender, and in Senegal, it is about ethnicity, livelihood, and gender. Data will be analyzed to understand the barrier, benefits, and related aspects of the three target countries. Based on the analysis, a gender-mapping methodology will be refined. Findings from mapping will help develop an intervention strategy for each country. Intervention strategy will consist of trainings at VVC lower nodes, including male and female livestock keepers, and in Senegal combined with exploring opportunities around co-location of services. Trainings will be tailored for one group value chain actors through existing

collaborations with networks and programs in the target countries. GITA will be applied through trainings and innovative interventions. Finally, as stated above, a meta-analysis will be conducted to test the hypothesis.

The above activities are expected to result in the change of knowledge, attitude, skill, and aspirations of the stakeholders. The project aims to increase the knowledge of the role of gender and intersectionality in increasing equitable access to and control over resources in the LVVCs. A change in knowledge would result in an increased awareness among vaccine service providers regarding the equal and vital roles of men and women in the LVVC. It will also help to enhance the capacities of vaccine service providers for expanding vaccine campaigns. This awareness would result in an attitude change of the individuals in the community. In long-term both men and women will be empowered about GITA infused LVVC, leading to a better vaccine's accessibility and adoption.

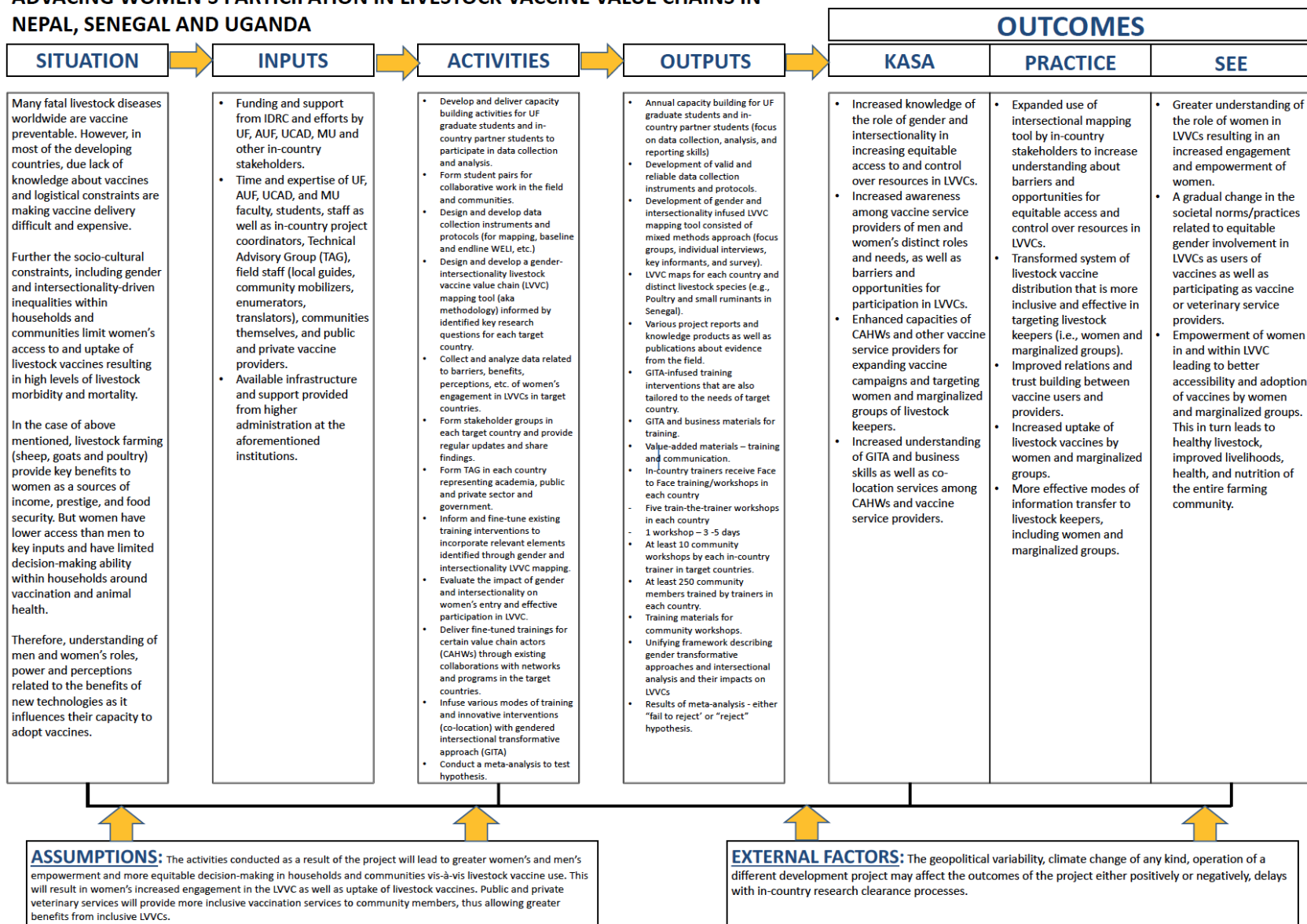
Being a human development project, several assumptions and confounding factors have been identified. Assumptions include that activities conducted as a part of the project will lead to greater women's and men's empowerment and more equitable decision-making in households and communities vis-à-vis livestock vaccine use. Increase in women's use of animal vaccines will derive more significant benefits for them. Another assumption is that stable funding is available for the entire project period. There are political stability and security during the project implementation period. The country research clearance is obtained in due manner to conduct research. Possible confounding factors include geopolitical variability, climate changes of any kind, and operation of a different development project may affect the outcomes of the project either positively or negatively.

The LIVT project will utilize an impact logic model (see Table 1 below) for planning and implementing the project evaluation. A logic model is considered as the first step in an evaluation process (see more on the evaluation process under section [M&E Plan](#)). The logic model helps in planning for evaluation resources so that they can be used effectively and efficiently. Logic models are considered as stabilizers for programs during times of change, as they work as guideposts helping program strategies stay on course to reach the target (Alter & Murty, 1997). The logic model serves as a document of project change and lets stakeholders track this change mapping linkages between the problem, the specific intervention, and the impact. The development of the logic model and the Theory of Change (ToC) for the LIVT project is consistent with the activities included in the first step of outcome mapping (Earl, Carden, & Smutylo, 2001). We do not plan to use outcome mapping in our MEL but we will include select elements from the Outcome Mapping methodology to achieve comparable results in terms of project monitoring, learning and evaluation (MEL). Our project logic model shows the progression toward the intended long-term impact of the program.

Table 1: An impact logical model (presented next).



## ADVANCING WOMEN'S PARTICIPATION IN LIVESTOCK VACCINE VALUE CHAINS IN NEPAL, SENEGAL AND UGANDA



Note - KASA=Changes in Knowledge, Attitudes, Skills, and Aspirations; SEE=Changes in Social, Economic, and/or Environmental condition addressed by the program.

## Project MEL Framework

This MEL framework aims to give a comprehensive yet a practical guideline to the monitoring and evaluation (M&E) and learning strategy of the LIVT project to the research team and in-country project coordinators. In order to integrate it in the project management strategy and ensure progress throughout the life of the project, the MEL framework sets out to follow several key and overarching principles regarding how to conduct and manage monitoring activities, evaluation, and learning:

- The M&E process is an integrated part of project management. It is being valued as a key approach to inform research and programming, as well as improve and ensure quality of interventions, and generate useful evidence of project's results and challenges.
- M&E information should be collected both on process and product/service, and monitoring activities should be aligned as much as possible and practical with project activities.
- Simple and clear indicators and targets are set for the project, with a focus on achieving results at intermediate outcome and outcome level ([Appendix 1](#)).
- The learning strategy defined for the project is well-structured and planned out, with an increased emphasis on dissemination and sharing of lessons learned, as well as project's findings with a range of stakeholders.

## M&E Plan

An M&E Plan is essential to assess if a project is meeting its set targets, therefore, a formal M&E plan is an integral component of project's MEL Framework. M&E tools discussed below offer meaningful data for assessing the project progress and further guide the LIVT project design and implementation. The data will also provide accountability information to the sponsoring agency (i.e., IDRC). During the evaluation process, an emphasis will be placed on meeting the standards of utility, feasibility, propriety, and accuracy (Yarbrough et al., 2011).

The M&E plan comprises the following four tasks:

- 1) Engage stakeholders to maintain a responsive and focused evaluation program;
- 2) Collect relevant M&E data from the project;
- 3) Analyze and interpret data to establish the quality, effectiveness, and impact of the project; and
- 4) Report and share evaluation findings and recommendations with key stakeholders.

Our M&E plan is participatory to enhance the relevancy of activities and products to the stakeholders. Such participation enables the key stakeholders to reach a shared understanding and provide input regarding the evaluation goals, products, and the utilization of findings for reporting and decision-making. The M&E activities will be conducted with a focus on the utilization of outcomes (NSF, 2002; Patton, 2008). Table 2 below illustrates project outputs for measurement that have been identified in the LIVT Milestones document and regarded as project deliverables to report on biannual and annual basis to IDRC.

Table 2: Measurement Outputs

IDRC Output	UF LIVT customized output	Level at which measurement will take place	Tool and mode of data collection	Rationale	Frequency of data collection
1311. Gender-sensitive educational materials on vaccines and vaccination against targeted diseases produced and disseminated to livestock smallholders and key stakeholders. <ul style="list-style-type: none"> <li>Percentage/total of female and male livestock smallholders confirming awareness and understanding of the benefits of vaccination after each training event.</li> </ul>	Number of GITA-sensitive education materials produced and disseminated.	All levels of LVVC  Training centers for CAHWs and DVOs	Records of materials produced Records of materials disseminated Records of materials used by training centers and others Collected in person Disaggregated in sex	This will allow to address findings from the LVVC mapping	Every six months once intervention strategy starts
1312. Training session on the benefits of vaccination organized and delivered to livestock smallholders, especially women <ul style="list-style-type: none"> <li>Number of trainings on the benefits of vaccination completed</li> <li>Number of farmers trained on the benefits of vaccination completed</li> </ul>	Number of GITA-sensitive trainings delivered to LVVC actors (disaggregated by sex and by the type of actors in the VC)  Number of LVVC actors (disaggregated by sex and by the type of actors in the VC) trained	Training centers for CAHWs and DVOs  Community centers where community members to be trained	Training record of number of LVVC actors attending and completing the training Disaggregated by sex Collected in person Monitoring visits will also ensure that communities are attending targeted events	This will allow the project to know who is trained	Every training event and quarterly afterwards
1313. Reports on cultural, social and economic determinants of vaccine adoption produced and disseminated <ul style="list-style-type: none"> <li>Number of reports on cultural, social and economic determinants of vaccine adoption produced and disseminated</li> </ul>	Meta-analysis report on the efficacy of GITA-sensitive interventions in target country	Project level	Records of reports produced Records of reports disseminated	This will allow to compile and share evidence with donor and other relevant stakeholders in target countries, internationally and UF	Every report event and quarterly afterwards

Our M&E plan includes both formative and summative evaluations (Owen, 2007); these forms of evaluation will be used for evaluating and monitoring the progress, quality, and effectiveness of the activities and products of the project. The formative evaluation consists of process evaluation and monitoring (Owen, 2007). The formative evaluation will be used to establish how well the project activities are conducted in relation to the project's plan (Rossi, Lipsey, & Freeman, 2004). These two approaches to formative evaluation will enable to understand what is taking place in the project and to identify if, and how, different project elements contribute to the outcomes. Monitoring will be a continuous internal activity of the project to track progress for accountability and improvement. Summative evaluation provides information to measure success of a project (i.e., if the intended goals were met). Information about such progress is necessary to find precise criteria and evidence that allows stakeholders to make judgements (Rossi et al., 2004). IDRC, in-country decision makers and various LVVC actors, and international research and community of practice communities will be the primary stakeholders who will use the findings from a summative evaluation. An impact assessment will be used to determine if the desired outcomes were attained and to explore if the changes also include unanticipated consequences (Rossi et al., 2004); this type of evaluation normally examines short, medium, and long-term outcomes.

## Evaluation Team

Two evaluation experts affiliated with the UF/IFAS Department of Agricultural Education and Communication (AEC) will be responsible for designing and implementing the Evaluation Program for the project.

- *Jyothi Swaroop Bommi*, a Doctoral student in AEC. His primary research foci are program evaluation and technology adoption and utilization.
- *Dr. Sebastian Galindo*, a Research Assistant Professor in AEC. He has 15 years of direct evaluation experience and has served as the primary evaluator, or member of the evaluation team, for numerous externally funded projects.

## Evaluation Task 1: Engage key stakeholders to maintain a responsive and focused evaluation program

Involving the key stakeholders in the project evaluation process adds value. Participatory evaluation is an evaluation approach where the key stakeholders are actively engaged in evaluation plan development and execution (Narayan, 1994). This evaluation is unique as it deviates from other forms of evaluation by directly involving people who have a high stake in the project. The people included in the evaluation process consist of people from all levels of the project, such as partners, LVVC actors, project indirect beneficiaries (i.e., communities), funders, and key decision/policy makers. The evaluation plan is designed to address the questions that are relevant and meet the needs of both the project staff and the project beneficiaries (Narayan, 1994). The evaluation team plans to engage as many stakeholders as possible in relevant evaluation activities. Formal communication will be established between the evaluation team and the stakeholders maintaining regular contact to update them about the progress. Such formal contact will also enable the evaluation team to gain insights from stakeholders on emerging evaluation needs. An impact logic model (see Table 1) will be utilized as a framework for planning and implementing the evaluation for the project. The evaluation team will periodically refine the logic model throughout implementation based on feedback from stakeholders to ensure that the program is focused and relevant. This practice would enable the M&E plan to be responsive to changing user needs. Where needed, we will develop country-specific logic models to make the M&E plan country specific and to address stakeholders concerns and suggestions. The steps on

developing country specific logic models will be done after the LVVC mapping is complete to incorporate the findings on value chain actors and additional country specific nuances into the MEL framework.

### Evaluation Task 2: Collect relevant M&E data

The M&E process adopts a combination of both quantitative and qualitative methodologies to study project progress and assess the extent to which the project meets its intended goals. Previous research literature identified the importance and advantages of mixing methods in evaluating a complex multidisciplinary intervention (Creswell & Plano Clark, 2011; Greene, 2007; Plowright, 2011). For example, Greene, Benjamin, and Goodyear (2001; p.27) state that “the fundamental uncertainty of scientific knowledge – especially about complex, multiply-determined, dynamic social phenomena – can be better addressed through the multiple perspectives of diverse methods than through the limited lens of just one.” The use of mixed methods allows researchers to collect and analyze both quantitative and qualitative data together providing an opportunity to understand a research problem holistically (Creswell, 2002). Mixed methods research affords studying multiple perspectives and paradigms when investigating the research problem (Creswell, 2014).

In order to track the project progress, monitoring will be carried out using tools borrowed from the outcome mapping model, including outcome journals, strategy journals, and performance journals (Earl, Carden, & Smutylo, 2001). The data collection methods for the evaluation of the LIVT project will include focus group interviews (Israel & Galindo-Gonzalez, 2008), quantitative surveys (Dillman, Smyth, & Christian, 2014), in-depth individual interviews (Holstein & Gubrium, 2003), observations (Plowright, 2011), and the use of project records (McCulloch, 2004; Wholey et al., 2004). The quantitative surveys will be administered following non-experimental designs (Posavac & Carey, 2007) either in the form of a pre- then post-test design (Rossi et al., 2004) or a retrospective pre-test design (Pratt, McGuigan, & Katzev, 2000). All the interviews and observations will be based on a constructionist framework (Crotty, 1998).

The evaluation of the project will document different findings and products resulting from the program activities. The presence of anticipated products and implementation of planned activities like training programs for students, development of instruments, data collection and analysis will be monitored in each research project (output-based evaluation); monitoring will also track the participation of intended audiences in planned activities. The intended outcomes, such as increased knowledge, awareness, enhanced capacities, and others, will be documented.

### Evaluation Task 3: Analyze and interpret data to establish the quality, effectiveness, and impact of the program

The quality and effectiveness of the work of the project will be determined using appropriate methodologies to elaborate on their impacts (Israel, 1992; Lipsey & Corday, 2000) and the satisfaction of the participants (Israel, 2000). Results will be assessed in relation to the intended outcomes identified in the logic model. Quantitative data will be collected through surveys, and archival research, which will be saved in comma-separated values format for use in data analysis software. Data will be stored in SPSS and Excel. Qualtrics (a web-hosted survey application) may be used where possible to collect data, as well as a data entry tool (Newberry III, Gouldthorpe, & Israel, 2014). Outputs of analyses will be saved in the respective project's output style as well as in portable document format. The demographic data will be collected in a quantitative form and will be provided in published reports to convey the characteristics of the subject population. Qualitative data will be collected by focus groups, in-depth individual interviews, and observations. Summaries and comparisons, coding, and thematic analysis (Bazeley, 2013; Harding, 2013; Yin, 2011) will be

used to analyze the qualitative data. The qualitative data will be saved in Microsoft text and Microsoft word files for compatibility across various technological platforms and data analysis software.

#### Evaluation Task 4: Report and share evaluation findings and recommendations with project staff and key stakeholders (part of Learning Strategy)

Reports will be developed using the findings from the evaluation. A Manuscript will be expected for submission in related peer-reviewed academic research journals (this manuscript has not been included in our Milestone table). In order to promote the utilization of findings (Patton, 2008) and to foster a responsive (Stake, 2004) and developmental (Patton, 2011) approach to evaluation, the evaluators will share preliminary findings with the research team to discuss effective ways to utilize the evaluation results to fine-tune project processes, and to adapt evaluation strategies to meet relevant information needs of the project.

### Key Evaluation Questions

As stated earlier, project evaluations will focus on assessing results at Intermediate Outcomes and Outcomes level, which is why the evaluation questions are defined to look for causal links at a higher level. However, the LIVT project activities and outputs remain important in terms of consistency and how these relate to the Intermediate Outcomes, and then to the Outcomes. The project's theory of change will be tested at each evaluation point and validated or adapted if needed depending on findings. The following project evaluation questions will help generate evidence, and demonstrate achievements on effectiveness, relevance, efficiency, sustainability and impact.

<b>Relevance</b>	<ul style="list-style-type: none"> <li>• To what extent is the LIVT project's theory of change still valid?</li> <li>• Are the activities and outputs of the project consistent with the Intermediate Outcomes and Outcomes?</li> <li>• Are the Outcomes of the project consistent with the overall project objective of increasing the participation of women in LVVC?</li> </ul>
<b>Effectives</b>	<ul style="list-style-type: none"> <li>• To what extent are the objectives likely to be achieved (Baseline, Midline, and Endline evaluation)?</li> <li>• To what extent has the LIVT project reached and made a difference to marginalized sub-groups of women (i.e., marginalized along intersectionality)?</li> <li>• To what extent have the project's interventions addressed the major barriers and challenges to marginalized women's participation in the LVVC?</li> </ul>
<b>Efficiency</b>	<ul style="list-style-type: none"> <li>• Did the LIVT project achieve its objectives on a timely basis?</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• What impact did the LIVT project have on the participation of women in LVVCs?</li> <li>• How many female and male livestock keepers have been positively affected by the project interventions?</li> <li>• What are the main results achieved by the project? And what are the key factors (and barriers if any) behind these achievements?</li> <li>• What effect has had the project's work on social and gender norms at the community level and along the LVVC (at least at lower nodes of VVC)?</li> </ul>
<b>Sustainability</b>	<ul style="list-style-type: none"> <li>• Which interventions have the highest potential and likelihood for scale-up?</li> <li>• What are the key factors/barriers, which require more attention from the project to increase prospects of sustainability at intermediate outcomes and outcomes level?</li> </ul>



Some of the evaluation questions were designed with the aim of generating evidence that would feed into the LIVT project learning strategy. The findings resulting from these questions will facilitate more learning and more adaptation to improve programming and sharpening the focus of the project's interventions throughout the life of the project. By endline, the evaluation findings will lead to further evidence-based approaches and interventions, available for future projects to learn from, to be shared widely among LVVC actors, government bodies, international research and community of practice communities, and finally, potentially for scale-up.

## Learning Strategy

The learning strategy will be used as a project learning tool to identify and communicate on lessons learned during project implementation. This strategy aims to increase the effectiveness and efficiency of the project, as well as make the project flexible and adaptable to the changing environment and context. The strategy will rely heavily on the information from the M&E and research findings.

The learning strategy will include a set of common steps and activities: The activities will include but not limited to:

- Convene stakeholders and partners to identify learning information needs;
- Identify, prioritize and adopt learning questions;
- Review the literature for what is already known about the topic;
- Develop a plan for answering those questions;
- Implementing learning activities;
- Disseminating the evidence usually through learning products in order to allow the audience to use and apply the findings in their work.

As part of the project's Theory of Change, the research team recognizes that the impact of improving women's participation in LVVC cannot be achieved through a linear implementation of interventions; it needs to be approached in a holistic way, where different environments and core components are influencing and reinforcing each other. Therefore, training quality, positively changing gender and social norms in community, and active and collaborative engagement of the government and local stakeholders are key to the project's success.

Our learning strategy will be supported by a collaborative approach; which is based on the model that knowledge can be created within a population where members actively interact by sharing experiences. Through our training interventions and communications with stakeholders we will also involve men to increase their awareness on the crucial roles women play in animal health and veterinary services, and the LVVC. This will imply collaborating intentionally with stakeholders for the production and transmission of knowledge—both explicit knowledge and tacit knowledge, conducting focus group discussions with community stakeholders.

To disseminate the results the project will organize community workshops and a national-level symposium toward the end of Year 3 in each target country.

The main audiences for this project and interventions will include the stakeholders in the poultry and small ruminant VVCs, including male and female producers, extension providers, marketers, veterinary service

providers, agricultural input suppliers, processors, and consumers. The findings of our research will be widely shared with government and NGO livestock extension services providers, CAHWs, and other key stakeholders where LSIL works.

Upon completion of the major outputs described above, we will disseminate them using these methods:

- Local community and stakeholders via print materials (literate, non-literate, and in local languages), videos, and radio announcements,
- Research community in LVVC and gender via journal publications, conference presentations, and discussion papers,
- National and international policy community via policy briefs, discussion papers jointly authored by government stakeholders, and finally
- Posting training modules on LSIL's website: <http://livestocklab.ifas.ufl.edu>.

The learning from this project will assist LVVC stakeholders understand more fully women's roles and contributions to animal health related to the specific diseases being targeted, and whether gender or other intersectional factors are most important to consider. In addition, understanding the best mechanisms to reach women (i.e., distance learning vs. face-to-face training methods, co-location with other services to distribute vaccine and animal health information, etc.) will improve outreach by government, NGO, veterinary and extension services to increase the efficacy of vaccine use and campaigns.

We expect the following learnings:

- Expanded knowledge of the role of intersectionality in increasing equitable access to and control over resources in the LVVC.
- Increased awareness by vaccine value chain stakeholders of women's roles in LVVC, as well as their potential for expanding vaccine campaigns.
- Improved delivery of vaccine services by understanding the benefits of co-locating human and animal health services or animal and climate information to distribute livestock vaccine information.
- Determining the most effective mode of information transfer to women.

## Evaluation Timetable

Activities	Timeline / deadline
Project appoints and forms an Evaluation Steering Committee	Sept-Oct 2019
Inception meeting and workplan review	Different in target countries Nepal – April 22, 2019 Senegal – September 17, 2019 Uganda – November, 2019
Definition of M&E research instruments and development	Oct – Dec 2019
Finalize and submit evaluation quantitative and qualitative tools for IRB approval	January 2020
Develop and carry out MEL training workshop for in-country project coordinators	Jan – Feb 2020
Testing and piloting data collection tools	Jan – Feb 2020



Collect benchmarking data and baseline data	March 2020
First draft of baseline report and clean datasets	Early May 2020
Presentation to Project team and Evaluation Steering Committee	Early June 2020
Final Baseline Study Report + clean datasets submitted	September 2020
Inception phase of midline evaluation	Oct - Dec 2020
Fieldwork of midline evaluation	March 2021
Final Midline Study Report submitted	June 2021
Inception phase of endline evaluation	Oct-Dec 2021
Fieldwork of endline evaluation	Jan 2022
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## Appendix 1. LIVT Project Indicators

Please see separate Excel spreadsheet with LIVT Project Indicators.