PROJECT MANAGEMENT BEST PRACTICES

FOR CLIMATE CHANGE RESILIENCE

WITHIN LAKE VICTORIA BASIN

A Project Paper

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ABSTRACT

There are hundreds of non-governmental organizations working in the sphere of climate change resilience in rural communities, yet in many instances, there is a lack of collaboration and effectual management strategies, limiting the overall impacts of the organizations' projects. As climate change continues to have increased devastating impacts on those who have the least resources to mitigate them, it is crucial that these organizations utilize the most effective and efficient management practices. This paper follows the journey of one such NGO from conception to project implementation to add evidence to the growing field of these best practices. Specifically, this paper draws on qualitative and quantitative research including two trips to Uganda conducting focus group interviews and year-long communication with community members in the field. The projects implemented through this approach include four management training modules, climate-smart agriculture, food preservation, and vocation skills training a revolving loan fund, and an internship program. As a result, this paper argues that the four most effective strategies for improving effectiveness of NGO project implementation are to 1) engage in networks of knowledge-sharing, 2) diversify funding, 3) improve effectiveness of climate communication with both donors and beneficiaries, and 4) follow USAID's Collaborating, Learning and Adapting model considering community context.

BIOGRAPHICAL SKETCH

Laura Simmons-Stern was raised in Massachusetts where she developed her deep love of nature. She began traveling from a young age which led her to eventually work in international sustainable development. Laura holds a B.A. in Environmental Studies, a certificate from the Holleran Center for Community Action and Public Policy, and a minor in Psychology from Connecticut College. She then began working with NGOs in Uganda, Ghana, and Zambia in water sanitation, e-learning, and cash-grants for women's empowerment. Laura then fulfilled her dream of becoming a Peace Corps Volunteer, where she lived in Mexico, managing the Environmental Education Department for a state environment protection agency. She later developed and led technical trainings for Peace Corps East Timor trainees and then switched gears to work with an international sustainability consulting firm. These experiences led her to Cornell University where she furthered her studies of how best to improve livelihoods while protecting the environment.

To my family and friends for their unrelenting support.

ACKNOWLEDGMENTS

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LIST OF ABBREVIATIONS

CLA   Collaborating, Learning and Adapting Framework

CSA   Climate-Smart Agriculture

FAO   Food and Agriculture Organization

IC   Illuminate Change

IGA   Income-Generating Activity

LVB   Lake Victoria Basin

MEL   Monitoring, Evaluation and Learning

NGO   Non-Governmental Organization

UNCTAD   United Nations Conference on Trade and Development

USAID   United States Agency for International Development

PREFACE

This Master of Professional Studies Capstone project paper examines effective strategies in nonprofit management in the context of improving climate change resilience among smallholder farmers in Buvuma District, Uganda. Specifically, it will explore best methods for developing and implementing projects falling under the following four categories: climate-smart agriculture, food security, environmental conservation, and vocational skills.

Smallholder farmers are an underserved majority that hold the greatest potential to improve food security, reduce poverty, and positively impact growth throughout Uganda. The agricultural sector in Uganda is particularly vulnerable to climate change, manifested in the complex challenges resource-poor smallholder farmers are facing throughout Buvuma District. As one of the hard-to-reach areas in Uganda, Buvuma District is often absent from national and international community development programs. This research contributes to the lacking baseline data of the unique context of livelihoods in Buvuma District, which will serve to inform future projects.

This program seeks to improve the livelihood and climate resilience of these farmers and in doing so acts as a conduit to future impacts throughout the community. Using a management approach of collaboration, each aspect of our project integrates knowledge-sharing, commitment from the community, and creates a sustainable approach to poverty alleviation.

This research first identifies the impacts of climate change on the people of Buvuma District through a mixed-method research design including in-depth interviews and focus groups. Having distinguished the priorities of the community in relation to the research findings, and in partnership with community stakeholders, this program then facilitates management trainings in conjunction with the impact project implementation. The management training were designed to enhance the sustainability of the projects and of the initiation of an organization (Illuminate Change) to further develop the projects.

This scalable program provides a series of practical examples in support of sustainable growth, by facilitating a role in community and resource mobilization to the rural communities of Buvuma District.

INTRODUCTION

This capstone paper will follow the creation of a non-governmental organization, Illuminate Change, to shed light on the best practices and challenges of developing a small organization focused on climate change resilience. This collaborative program seeks to improve the livelihood and climate resilience of farmers in Buvuma District of Lake Victoria, Uganda, and in doing so, acts as a means to develop future impacts throughout the community.

This program was created through the support and ownership of the community and introduces a two-pronged approach through training to create a strategic sustainable management plan. The two training categories are: 1) facilitating implementation of impact projects with the priority of developing skills for local individuals (including microfinance group leaders) with an interest in greater leadership roles and; 2) developing program management skills and knowledge with a priority on facilitating inter-organizational collaborations and networking opportunities.

As a staff of four professionals (including three Cornell Graduate students and one Humphrey Fellow from Buvuma District, Uganda), we are leading this implementation in close collaboration with locally-based partners in Uganda. The program focuses on developing management skills for local community members to oversee the following three impact projects: 1) climate-smart demonstration gardens and food security trainings, 2) biogas systems for waste management, and 3) income generation activities involving vocational trainings for environmental conservation. Our team chose two geographical sub-counties within Buvuma District to focus our work: Buvuma Town Council and Busamuzi Sub-County. These communities are the islands' most agriculturally-based, receptive to incoming projects, and easily accessible throughout the duration of the project.

Building local managerial skills is essential for the sustainability of development projects. Currently, non-governmental organizations in Uganda have the potential to create change in Buvuma District, however, there exists a gap between implementing projects and providing management trainings

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for local leaders, which hinders project sustainability and increases dependence on future programs. Our program addresses this gap by prioritizing local community engagement while providing a supportive structure for the leadership of the impact projects.

The management trainings are attended by key leaders in the community who have expressed an interest in taking on a leadership role in the projects, with a focus on women's participation and local microfinance groups. The trainings are carried out sequentially to prepare for a successful management transition of the pilot impact projects for community ownership.

The goals of this program are to:

1) monitor and evaluate how climate change is affecting the people of Buvuma District in Uganda.

2) implement climate-resilience projects in agriculture, food security, environmental conservation, and income generation.

3) develop partnerships with NGOs, universities, and microfinance institutions that lead to future networking and collaboration.

4) educate and demonstrate effective strategies in NGO management and program development that address the economic disparities in Buvuma Districts in Uganda.

CHAPTER 1
LITERATURE REVIEW

This research project draws on the challenges of climate change implications and NGO management techniques. This literature review will, therefore, focus on both of these themes. Specifically, it will examine the impacts of climate change in Uganda, and within Buvuma District, followed by the role of women in climate-smart agriculture, management techniques including the psychological barriers to action, and concluding with two case studies of such work.

Climate Change Impacts on The Food, Water, And Energy Nexus

Climate change is arguably one of the greatest threats to human beings today. The impacts of climate change are incredibly multisectoral and representative of the nexus between water, energy, and food security. While the web of interconnection between these three areas is a vast one, a simple context is the following; climate change is and will continue to most impact developing countries and the communities that have the least resources to adapt to it and have emitted the least greenhouse gases to contribute to it (Gonzalez-Sanchez et al. 2018). Globally, the majority of people living in these rural communities are smallholder farmers and 80 percent of those farmers rely on rain-fed agricultural techniques for their livelihoods (Sathyan et al. 2018). These communities also often have less access to electricity, energy and financial resources, meaning that they have less availability of alternative resilience actions to protect their crops such as refrigeration or machinery.

Climate change will increase the prevalence and frequency of droughts and floods with less predictability, leading to a loss of agriculture crop production (Devereux, Sabates-Wheeler, and Longhurst 2012). Apart from the livelihoods of these smallholder farmers and communities, global food security is greatly threatened; with population and income growth, food production will need to increase by 70% by 2050 and most of that production will have to come from developing countries, including the 72% of all cereal grain grown ("How to Feed the World 2050 Global Agriculture 2009" n.d.).

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In India, for instance, agriculture is highly dependent on the south-west monsoon, and so the changes in patterns of rainfall will have a significant impact on productivity levels; one of the many consequences of this change is that India will see a loss of 4-5 million tons of wheat production annually for every 1 degree C increase in temperature (Shah 2018).

Climate Change in Uganda

Agriculture is a pillar in Uganda's rising economy, employing over 70% of the population and contributing approximately 26% to GDP ("Economic Outlook 2016 UG" 2016). However, the agricultural sector in Uganda is extremely vulnerable to climate change manifesting complex challenges for resource-poor smallholder farmers. With prolonged dry spells and unexpected heavy destructive rain, climate change has negatively impacted the seasonal planning of agricultural crops, yield, household nutrition and overall productivity on Lake Victoria and throughout the country ("Nutrition at a Glance Uganda" 2011). It is important to note that smallholder farmers make a large contribution to the entire food system and therefore their resilience to climate change is a vital concern for all (Thornton et al. 2014).

Climate change studies have found that temperatures have increased by over 0.5 degrees Celsius and there are be increasing frequency of drought events and more erratic rainfall seasons in Uganda ("Uganda Climate Change Vulnerability Assessment Report 2013 USAID" 2013). The mean annual temperature is expected to increase by 1.5 degrees C by 2020 and to 4.3 degrees by 2080 ("Lake Victoria Climate Change Readiness Brief No. 3" 2014). Hotter temperatures will increase the intensity of these droughts, impacting not only agriculture, but livelihoods and health in general. In Uganda, average rainfall has fallen by 12 percent over the past 34 years (Ssentongo et al. 2018), and the continued severity and frequency of droughts will also increase pests and diseases, severely impacting agriculture. While rainfall predictions vary over Uganda, in the Lake Victoria region, there is an expected significant overall decrease of 20% through the increased unpredictability (Nsubuga and Rautenbach 2018).

Increasing population, overfishing, and use of pesticides and fertilizers will additionally aggravate these changes in climate through an increase of waste overflows and contamination of soils and the water in Lake Victoria (Nsubuga and Rautenbach 2018). These challenges, combined with decreased rain and increased temperatures in Uganda, have resulted annual catch of the Nile perch decreasing 26% and tilapia by 34% from 2005 and 2011 (Nsubuga and Rautenbach 2018). Even in the midst of these drastic changes, government support to help farmers and fishermen adapt to these climatic changes is very limited (Nsubuga and Rautenbach 2018). Additionally, the International Red Cross estimates that 3,000 to 5,000 fishermen die on Lake Victoria every year due to the violent storms. NASA has also determined that these unusual weather events in the area will increase in frequency and continue to be violent due to anthropogenic climate change (Frederickx 2016).

The increasingly variable rainfall patterns and increased temperature due to climate change will continue to reduce the productivity of agriculture as well as the abundance of fish in the lake. The increased temperatures are contributing to a decreased water abundance as it increases the rate of evapotranspiration. This will directly negatively affect commercial fisheries and farmers. One project that is currently being implemented to address these vulnerabilities is by the Adaptation Fund with UNEP and the Lake Victoria Basin Commission (LVBC), but there is much more that needs to be done to increase resilience for these farmers and fishermen (Frederickx 2016).

Buvuma District Background

Buvuma District is located in the Central Region of Uganda and is composed of an archipelago of 52 islands in northern Lake Victoria, with no territory on the mainland of the country. This is a relatively new district, created by an Act of Parliament in July 2010, at which time it was subdivided into nine sub-counties. The largest of the islands in the district is Buvuma Island, named after the new district. The population of the district rose from 18,500 in 1991 to 89,890 in 2014, with much of that population emigrating from mainland Uganda, and especially Eastern Uganda ("Buvuma (District, Uganda) - Population Statistics, Charts, Map and Location" 2019) .
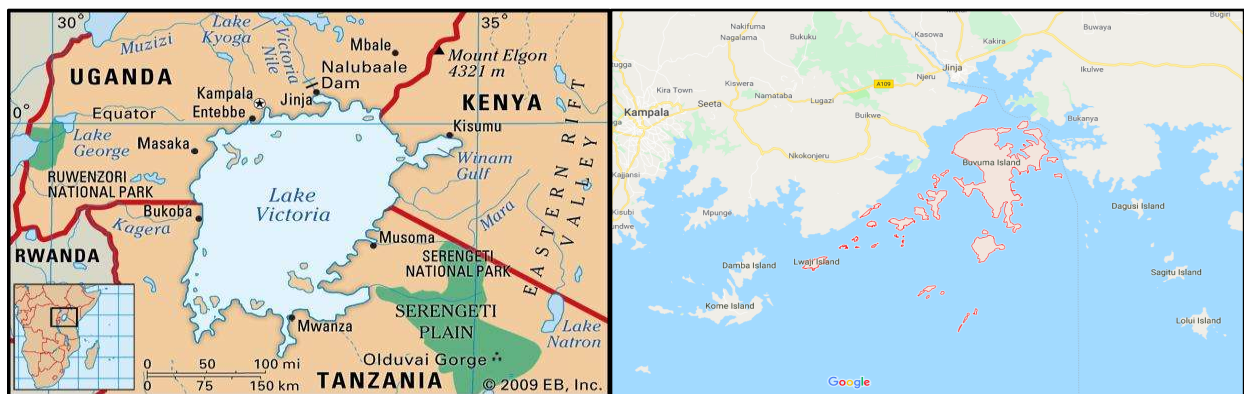
Map 1: Uganda and Lake Victoria   **Map 2: Buvuma District Islands**

The district has its own vision and mission statement which are as follows:

➢ *District Vision:* "A population empowered to sustain growth and development on Buvuma Islands."

➢ *District Mission Statement:* "To improve the quality of life of the people of Buvuma District through equitable service delivery and good governance so as to attain sustainable economic transformation" ("Buvuma Local Government Budget Framework 2014" n.d.).

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[1] Map 1: ("Lake Victoria | Size, Map, Countries, & Facts" n.d.)
Map 2: ("Google Maps" n.d.)

Compared to the rest of the country, across the Lake Victoria Basin (LVB), rain-fed agriculture accounts for significantly more of Uganda's GDP, at over 40% ("Lake Victoria Climate Change Readiness Brief No.2 (July 2013)" n.d.). The population of Buvuma District depend on subsistence agriculture and fishing as their main sources of livelihood. The socio-economic impacts of climate change in Uganda, therefore, have an even greater impact on food security, farmer livelihoods, health care, and living conditions throughout Buvuma's local economy, and will "perhaps even reverse the development gains" of the Ugandan government ("Responding to the Challenges of Poverty, Food Insecurity and Climate Change" 2015). Regrettably, smallholder farmers still remain with inadequate access to government and other organizational support, and with limited access to knowledge of effective mitigation and adaptation measures that can decrease the impacts of abnormal seasonal patterns ("Lake Victoria Climate Change Readiness Brief No.2 (July 2013)" 2013). The island nature of the district also makes delivery of services, as well as illegal fishing, two of the largest challenges for the local government and the communities ("Buvuma Local Government Budget Framework 2014" 2014).

In recent years, Buvuma fishermen have been threatened by a decrease in yields, in part due to the island's waste management system polluting the surrounding waters, compounding the impacts of the changes in climate. The high poverty rate, poor standard of living (99.8% not living in "decent dwellings"), and inadequate infrastructure (only around half the population properly dispose of solid waste) have also contributed to poor sanitation and health, and an increased severity of non-communicable diseases ("Non-Communicable Disease on the Rise in Uganda; Who Is to Blame." 2015). These factors affect household nutrition, and can be improved through an increase in income, and the proper storage of food products ("Water, Sanitation, and Hygiene (WASH) « Uganda Village Project" 2010). With the high rate of malnutrition across Uganda, the introduction of climate-smart agriculture technology is designed to improve yields and agricultural productivity associated with improved diets ("Uganda Climate Smart Agriculture Program Jointly Implemented By Ministry Of Agriculture, Animal Industry And Fisheries And Ministry Of Water And Environment 2015 - 2025." 2015).

There are many ways that 'resilience' can be defined in the face of climate change, however one that most fully encompasses its meaning is the following: "the potential to absorb and cope with impacts of climate shocks and extremes in the short-term, and to learn, reorganize, and redevelop, preferably to an improved state, in the longer-term" (Bremond and Moss 2013). As the impacts of climate change continue to worsen, mitigation (referring to the reduction or prevention of greenhouse gas emissions) is not sufficient. Efforts need to focus on effective strategies for making these impacts less detrimental or devastating today. As agriculture is one of the largest and most impacted sectors in developing countries, these resilience strategies must target improving agricultural techniques for these climate changes.

It is widely recognized that women are disproportionately vulnerable to changes in the climate (Yadav and Lal 2018; Lipper et al. 2014). It is also well known that the rural poor are more vulnerable to these changes. Rural women working in the agriculture sector are consequently one of the most vulnerable populations. It is also highly acknowledged that one of the most effective strategies for climate change resilience in agriculture are techniques falling under the term Climate-Smart Agriculture (CSA).

There a numerous studies that highlight the importance of including women in the creation of initiatives for climate change resilience, and especially in Climate-Smart Agriculture (Engle et al. 2014). For example, in India, climate change has been and is going to continue to cause increased temperatures, changes in seasonal precipitation patterns, and intensification of extreme events, resulting in lower standards of living for subsistence farmers (Mani et al. 2018). In fact, Southern India is expected to warm "substantially faster than the global average" (Salim et al. 2018), which is why it is an important case study to examine for other areas to learn from. A high percentage of women are working in the 11 most vulnerable hotspots to climate change in India.

Rural women also face unequal workload in agriculture which is increased with changes in the climate. For instance, women and rural populations rely mostly on rain-fed agriculture and so changes in rainfall patterns directly disrupt agricultural yield more so than for farmers that have access to irrigation

techniques and technologies (Xenarios et al. 2017). Women also often are responsible for collecting fuel wood which climate changes might result in needing to travel further distances which limits access to time for other credit-building activities (Basu 2017). 77% of the female population of India live in rural areas, making it even more imperative that they have access to Climate-Smart Agriculture techniques and credit resources (Basu, 2017). The situation of women in Uganda is no different, and so can also improve its resilience to climate change through targeting CSA practices toward women.

Consequently, as studies show, women's involvement in Self-Help Groups directly improves their ability to be more resilient to these changes (Chanana-Nag and Aggarwal 2018; Christoff and Sommer 2018). We will see two specific case studies proving this improvement later in this chapter.

Importance and Attributes of Effective NGO Management Strategies

There are hundreds if not thousands of organizations that have been working on combating climate change for decades. One of the most significant non-state actors working at this intersection of climate change adaptation and development are non-governmental organizations ("How to Feed the World 2050 Global Agriculture 2009" 2009; Tschakert and Dietrich 2010). Since their rise in the 1950s, the role of NGOs in development has become increasingly vital to the sector, as governments have become progressively reliant on them for carrying out development work.

The role of NGOs in the international arena has gained a reputation for being able to create change that larger international organizations cannot, as NGOs have a greater inherent ability to work on the community level. However, NGOs have faced and continue to face numerous challenges to their success, including difficulties in scaling their efforts, measuring impact, limited access to knowledge when addressing multi-sectoral issues, and "limited sharing of lessons from successes and failures" (Thomsen 2016). Each of these challenges threaten one of the most important factors for an organization's effectiveness: the sustainability of its operations and projects.

These challenges can be considered as part of a larger issue: a lack of wide-scale, systematic collaboration and knowledge sharing between NGOs working on climate change issues. Particularly in the context of food security related to climate change, "building resilience to climate extremes and disasters requires new forms of collaboration that bring together the capacities of a wide range of cross-sectoral partners" (Jones, Harvey, and Godfrey-Wood 2016). If NGOs are able to collaborate on a deeper level on key climate change resilience strategies, and particularly in agriculture, food security and livelihood development, this will increase as exposure to innovations lead to the changes in climate causing less detriment to food crops.

Background

One of the chief reasons why the lack of collaboration exists is the fundamental organizational structure of funding for NGOs. This dilemma can be summarized as "unlimited needs chasing limited resources" (Viravaidya and Hayssen 2001). NGOs, and particularly environmental NGOs, rely on receiving grants from philanthropists and donors, meaning that they are consistently competing against each other for the same funding to keep their organization running. Another consequence of civil society's dependence on donors is the creation of institutional homogeneity or isomorphism because NGOs have had to become increasingly accountable to donors rather than/instead of their constituencies (Kamstra and Schulpen 2015). For instance, "if there are no other funding sources available, you have to adapt your organization to suit donor demands or face bankruptcy" (Kamstra and Schulpen 2015).

One exception to donor-reliance for priorities is that of larger NGOs. Long-standing and respected NGOs, such as Oxfam, are sometimes able to indirectly influence Call for Proposals based on their previous work and proven success.

One of the most unique factors of NGOs is their ability to design and implement context-specific solutions, however this trend is limiting the impact they are able to have due to their scale and resources, and consequently, means they have less of an impact on food insecurity and resilience in general in the context of climate change. NGOs' reliance on donor and grant funding also makes it difficult for them to

have long-term planning strategies as most grants are time-constrained (Viravaidya and Hayssen 2001); when considering an issue like climate change that inherently is a long-term issue, not being able to effectively make and carryout projects that have larger scale, scope, timeline, and address the larger nexus of food, water, and energy, hinders the effectiveness of these NGOs to enhance climate resilience in developing countries.

As competition for funding increases, so too does the need for increased time and fund spending on visibility of their achievements to donors and "maximizing the probability of project success" (Aldashev and Navarra 2018). Furthermore, existing literature has tended to "neglect collective action issues" and rather study more narrow "subsets of the NGO population" (Prakash and Gugerty 2010). This is an important point, as it shows that even when NGOs begin collaborating, they do not and cannot be "oblivious to the imperatives of organizational survival" (Prakash and Gugerty 2010).

In order to achieve the UN's 2030 Agenda for Sustainable Development, a recent publication from the United Nations Conference on Trade and Development (UNCTAD) stressed the importance of "hybrid innovation", "fostering linkages", and "strong collaboration and partnership among all stakeholders" (Stock et al. 2017). This research acknowledges Illuminate Change's priority of developing partnerships between NGOs, universities, and microfinance institutions as being essential for future networking and collaboration to increase climate change resilience.

While there has been a shift in international NGOs to focus on engaging local communities and community ownership from simply delivering aid 'to' the people, there must now be a push for this engagement to reach the organization-to-organization level. The future and improved success of NGOs will rely on their local credibility, partnership with cross-sectoral initiatives (as there is a growing realization in the world of development that "no one organization can achieve ambitious poverty-reduction targets on their own"), to act as "changemakers" and to be seen as a "fabric of local civil society" ("Reinventing the International NGO" 2012).

One of the newest and most comprehensive guidelines for NGO best practices is that of the United States Agency for International Development's (USAID) Framework: Collaborating, Learning and Adapting (CLA). This framework was developed in 2012 by USAID's Bureau for Policy, Planning and Learning (PPL) to more systematically integrate the three concepts into its Program Cycle ("Collaborating, Learning, and Adapting (CLA) An Analysis Of What CLA Looks Like In Development Programming" 2017). Since its adoption and use by USAID's development partners, there has been proven evidence that this approach enhances organizational effectiveness, and in turn, improves development results (Young, Shapiro, and Salib 2017).

Figure 1. USAID's CLA Framework
("Collaborating, Learning, and Adapting (CLA) An Analysis Of What CLA Looks Like In Development Programming" 2017)

This framework identifies the need to more structurally manage and consider specific enabling conditions alongside collaborating, learning and adapting strategies. Organizations that integrate the CLA approach into their own program cycles and operational methodologies are able to address some of the most prevalent hinderances to effective development. CLA was consciously designed to address the most crucial of these challenges including, the lack of coordination between donors and implementing

institutions, projects being "donor-driven, rather than country-led or community-owned", and not utilizing new evidence o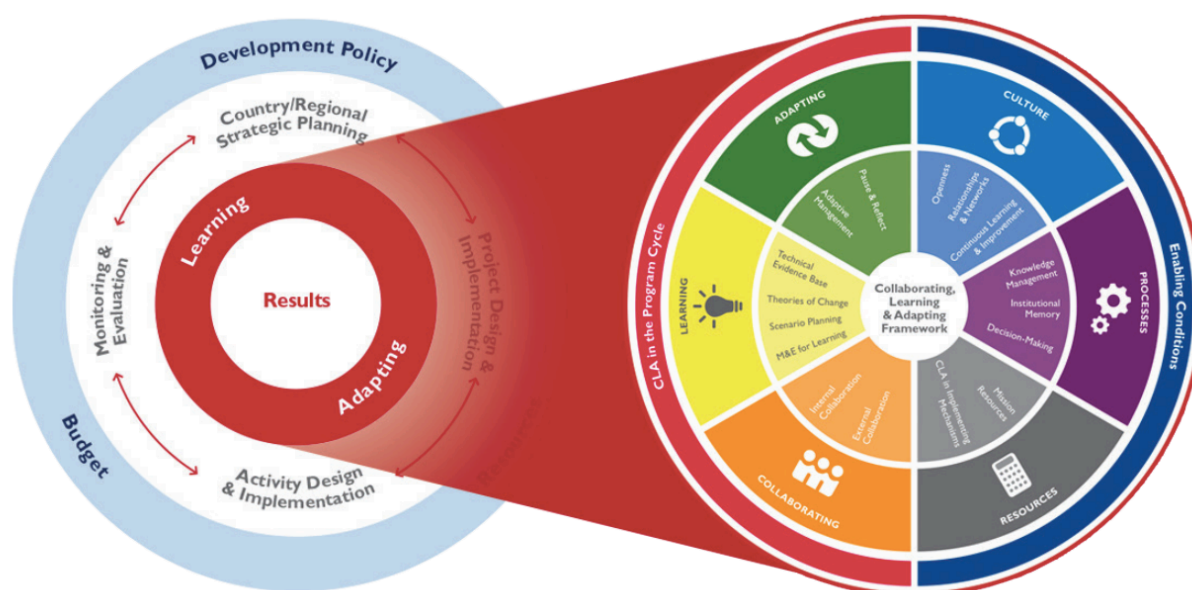r data ("Collaborating, Learning, and Adapting (CLA) An Analysis Of What CLA Looks Like In Development Programming" 2017).[2]

Psychological Climate Paradox

A major, and often less acknowledged, barrier to drastic action and support for climate change resilience both for NGOs' projects, and in society as a whole, which can also be attributed in part to why there is a lack of funding for such projects, is not that there is a lack of proof or knowledge around climate change, but rather that there is a psychological effect of the issue. This climate paradox refers to the contradiction of "growing scientific evidence that humans are responsible for disturbance in the climate system while public perception, concern, and action has been decreasing" (Stoknes 2014). The psychological barriers that are at play in this paradox and which NGOs must address to make effective progress in their work toward climate change resilience can be summarized by 'five D's': Distance, Doom, Dissonance, Denial, and iDentity (Stoknes 2014). To summarize one aspect of this evolving research, psychologists have found that human beings have "far less concern and visceral response" to threats that they perceive as distance or remote (Stoknes 2014).

Another psychological aspect of climate change action and communication that should be considered by NGOs is the way it is framed. Similar to how phrasing of "Global Warming" or "Climate Change" can invoke different responses, there is growing evidence that framing "Adaptation" as "Resilience" can have a strong positive impact on peoples' perception and likelihood of participation in climate action as well as enhancing adaptation practices and policies (McEvoy, Fünfgeld, and Bosomworth 2013). Specifically, studies demonstrate that "Resilience" framing invokes a belief of having

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[2] For more detailed information on the CLA model and how to integrate it into your organization, please see: https://www.globalcommunities.org/publications/2017-USAID-CLA.pdf.

the ability to "master challenges" and "emerging stronger", unlike "Adaptation" which more reflects dealing with stressors and "preserving existing resources" (Wong-Parodi, Fischhoff, and Strauss 2015).

By drawing on techniques to address this psychological climate paradox, NGOs will be able to more effectively encourage donors, stakeholders and local community members alike to be more engaged, interested, and invested in climate resilience action. These techniques are discussed in greater detail in chapter 2.

If NGOs continue to have to prioritize donor goals over communities they are trying to serve, including competing against each other for funding instead of making drastic headway in collaborating and sharing knowledge and tools, the consequences of climate change on food security (as well as lack of water, energy and economy), will continue to pose a serious threat.

NGO Case Studies

This section explores best practices of particular methods for management implementation in the climate change resilience sector. First, it highlights the Self-Help Group model from India, including two other local NGO case studies under that model. Then it looks at an example from the Food and Agriculture Organization (FAO) of the United Nations to further understand how larger organizations should approach developing large-scale project frameworks with multiple partners. This section will be followed by the third and most comprehensive 'case study': the development of the organization, Illuminate Change.

Case Study 1:

Indian Self-Help Groups: *An example for effective knowledge-sharing and women's social empowerment as a platform for climate change resilience in agriculture*

While there are many methods and models for effective knowledge-sharing related to networking that could be explored, there are few that have been as wide-spread, garnered international attention, and have had such proven multi-sectoral successes than the Self-Help Groups of India.

The Self-Help Group model was established by the Government of India on April 1, 1999, to tackle a wide array of social issues through "the process of social mobilization, training and capacity building and provision of income generating assets through a mix of bank credit and government subsidy" (Wong-Parodi, Fischhoff, and Strauss 2015). These groups are typically composed of 10-20 rural women and have expanded to involve millions of community members around the country.

One of the most important advantages of Self-Help Groups is their inherent ability to create and promote collaboration and the sharing of knowledge. The nature of Self-Help Groups is such that by providing a platform for community members to meet and work together they see an increase in social capital and solidarity. This collaboration can be seen in both the internal work within a group and on a larger scale between groups. Social capital can be understood as "networks together with shared norms, values and understandings that facilitate co-operation within or among groups" ("OECD Insights: Human Capital" n.d.). Even within this definition we can gain an understanding of the linkage between sharing understandings and networks. Social capital is also proven to "improve the efficiency of society by facilitating coordinated actions" (Saha, Annear, and Pathak 2013).

One important factor affecting collaboration and effective knowledge-sharing is that of peer trust. One study found that peer trust within newly formed SHGs resulted in increased collaboration and consequently, "growth in entrepreneurial ability" (Panda 2016). This study also found that trust developed the longer the group worked together, and this trust led to collective action. The study further explained that this same rule is applied to intermediation trust, such as that of the SHGs work with an NGO. This is important to note for NGO practitioners, that it is vital to gain the trust and not assume trust of such groups, to be most effective in their impacts.

One of the largest ways that networking and collaboration can be seen in relation to SHGs is member access to government programs, other banks, and NGOs. For the Government of India, as is the case with many governments, it can be difficult to effectively reach rural and remote areas around the country to carry out their programs. That is where the SHG model comes in; they are essentially "hubs of

service delivery" for such programs ("Scaling Self-Help Groups in India: Can Impact Investing Help? • Imago Global Grassroots" 2016).

The National Rural Livelihoods Mission, by the Government of India and supported by the World Bank, is one of the most successful and widespread implementations of SHGs. Through this program over 45 million women have saved $1.4 million collectively, and 3.3 million women farmers have increased their agricultural productivity ("Scaling Self-Help Groups in India: Can Impact Investing Help? • Imago Global Grassroots" 2016). However more uniquely, the World Bank is helping to build a platform for knowledge sharing amongst these Self-Help Groups through the creation of Innovation Forums and learning alliances. By bringing these SHGs and innovators into the same room, the forums allow for a more systematic scaling up of the most successful ideas.

Case Study Exploration

A 2011 wide-scale study of SHGs around India and Southeast Asia found that one of the largest and most important benefits of these groups was the women's empowerment. Specifically, through both quantitative and qualitative analysis, the study found that members saw improved networking, solidarity and community respect. The improved networking further proved to represent a "profound change" that was useful in "getting small projects completed". These results are nicely wrapped up in how one SHG member described the empowerment change: "One stick can be broken, a bundle of sticks cannot" (Kilby 2011).

NGO Partnership Initiative for SHGs

Here we will explore specific examples of how joining or creating a Self-Help Group can increase social capital, leading to increased networking and knowledge-sharing, and therefore improving access to information and support.

Pradan - The first example is of one organization's use of Self-Help Groups to further develop partnerships to improve income and climate change resilience. Pradan is a large and well-respected Indian organization who works with rural women on the following areas: social mobilization, livelihoods,

market access, food security, managing natural resources, and governance. In 2017, Pradan launched a new initiative specifically aimed at Self-Help Groups. This initiative is called SHG led Transformation of Rural communities through Partnerships, or STaRtuP (Kilby, 2011). The goal of this initiative is to draw on the collaborative nature of SHGs by creating 18,000 new SHGs by 2021 through 'Developing Clusters' ("Our Impact | Pradan" 2018). This partnership program allows for increased networking and knowledge-sharing, as the SHGs are connected and in closer proximity to each other.

Thus far, Pradan has not only increased market linkages for these SHGs for improved access and income, but they have also developed a targeted approach to Natural Resource Management and Climate Change Resilience. Through the SHGs trained by Pradan, 54,313 families have improved resilience. One specific tool they equip the SHGs with is water stress and surplus control measures, which allows them to be less vulnerable to rainfall pattern variabilities in their agriculture.

Swayam Shikshan Prayog - Another example of an NGO working with SHGs for climate resilient agriculture is that of Swayam Shikshan Prayog, or SSP.

This organization builds social capital of rural women in India by working with and creating SHGs to address the interlinked issues of climate change, access to markets, finance, poverty and women's empowerment. It's mission is "to empower grassroots women in underserved communities to attain economic self-reliance, and acquire new roles and social identities, and lead local planning and development" ("Our Work | Swayam Shikshan Prayog" 2018).

SSP's work with women leaders, whom it calls Sikhis, falls under four main areas:
1. Climate Resilience and Food Security in Agriculture
2. Health, Water and Sanitation
3. Clean Energy and Climate Change
4. Women's Entrepreneurship and Leadership Impact

The organization has been quite successful in each of these four sectors. For instance, their work has impacted over five million people in low income and underserved communities. However, this paper

will focus on their work and impacts regarding climate change in agriculture. The organization works in seven states around India, focusing on those with most vulnerability to climate change.

SSP's work in promoting agriculture for women in rural areas has not only reached a wide number of participants (41,000 to be exact), but they have consequently helped increase the annual income of these women by Rs. 516 crore as a whole. This impact is in part due to the 30,000 acres of land that the women brought under bio farming techniques, and the increased access to markets the women had due to their participation in the SHG networks ("Key Sectors | Swayam Shikshan Prayog" 2018).

However, SSP has also dedicated programming more specifically to climate resilience in agriculture for the women in their Self-Help Groups. They have done so by targeting both immediate and future impacts of climate change. As we have discussed, India has seen devastating disasters and hot spots of affected areas in agriculture in the past decade. SSP has developed a community resilience program that is being implemented throughout six areas around India that have been most affected by climate change and natural disasters from a changing climate. 2,400 villages are participating in this program which is run by its growing network of thousands of women in Self-Help Groups.

On the other hand, SSP focuses on disseminating information on climate resilient agriculture in a more preventative measure. The program targets drought resilience and recovery and particular sustainable agriculture practices. So far, the organization has enhanced the awareness of these practices to over 180,000 women farmers. Lastly, SSP takes an approach that recognizes the importance of women's empowerment specifically for these changes, through a leadership program where they have empowered 900 women to be 'leaders of climate resilience'. The organization has targeted six disaster areas most affected by climate change and chosen 2,400 villages to become part of their resilience program, run by the women leaders of the SHGs.

Large-scale Networking

SSP also serves as a connector between these SHGs and its partner, Huairou Commission which is a global network of grassroots women's organizations. They jointly manage a Community Resilience

Fund that funds "innovative resilience practices" ("SSP Annual Report 2017-18" 2018). This is a great source of both network and finance for climate-smart agriculture projects for Indian SHGs.

If all of these successes and impacts were not enough to demonstrate that their model of creating and supporting Self-Help Groups was worth replicating, we can take note from the leaders in international climate change resilience programs: The United Nations.

In 2017, SSP won the competitive United Nations Development Program's Equator Prize for creating an "ecologically sustainable agriculture model to combat the adverse impacts of drought" ("SSP Annual Report 2017-18" 2018). SSP was also awarded the United Nations Framework Convention on Climate Change's Momentum for Change Climate Change Award for "Creating a network of Rural Community Leaders Combating Climate Change" in 2016. In both cases, they were the only Indian entity in the running ("Awards & Recognitions | Swayam Shikshan Prayog" 2018).

Pradan's model of collaboration is also one that brings in larger-scale networking through its two-fold approach; not only do they work to bring together women into SHGs but they also develop partnerships with organizations with a similar mission. In this sense, they are truly 'walking the walk' as they recognize the benefits that collaborating can have for enhancing quality of life. For example, one of their main partners is the IKEA Foundation who has been supporting them since 2013, allowing Pradan to have the capital and connections to begin the STaRtuP program. Beyond IKEA however, this program is directly created to develop" collaborative action between PRADAN, mature collectives, local NGOs and market players" ("SHG Led Transformation of Rural Communities through Partnerships (STaRtuP) | Pradan" 2017).

The Indian Government's National Rural Livelihoods Mission also provides an example of large-scale networking beyond the internal SHG cooperation; due to its scale, scope, and ties with the National government and the World Bank, this program has drawn the attention of other countries. 30 countries to be precise, have sent representatives to India to visit SHG project sites and learn how they too can begin a SHG model approach to women's' empowerment and livelihood development ("Scaling Self-Help Groups in India: Can Impact Investing Help? • Imago Global Grassroots" 2016).

While the Self-Help Group approach is garnering increasing international awareness and interest, it is time for the rest of the world's countries to sit up and take notice. The dramatic results from these groups in India and their recognition from arguably the most influential development organizations proves in itself that this model works. The prevalence of case studies, manuals, and variety of knowledgeable stakeholders including NGOs and national governments not only further proves the successful impact SHGs can have on climate change resilience through empowerment, but perhaps even more importantly, demonstrates the feasibility of others to begin such a model themselves.

Case Study 2:

FAO Approach in Uganda

The Food and Agriculture Organization of the United Nations (FAO)'s work in Uganda will be explored as a case study example of how large development agencies collaborate, prioritize projects, and create logical frameworks that must include many stakeholder ideals. This case study will conclude with recommendations or lessons learned for how organizations working on these development issues should develop appropriate logical frameworks and approach working with many stakeholders.

Background of FAO in Uganda

One of the largest players in the world of International Development is the FAO. The Food and Agriculture Organization of the United Nations is a multilateral agency established to "monitor the global supplies in food, fibre and forest products and to enhance their production" in 1945 ("Our Office | FAO in Uganda | Food and Agriculture Organization of the United Nations" 2019). In order to provide effective analysis of the current situation of development approaches to climate change, it is imperative to highlight such a key player.

The FAO first began working in Uganda in 1959, providing technical assistance in livestock disease control and aquaculture development. This work led to the opening of its official representation in

the country in 1979 ("Uganda And FAO Fostering Sustainable Development And Better Livelihoods"
2018). The FAO Uganda office currently has a staff of 84, with 60 nationals, and 45 field staff.

<center>*Vision shift*</center>

The FAO Uganda program recently shifted its priorities from an emergency relief focus to more
long-term sustainability projects. Their focus was on immediate rehabilitation and emergency in response
to the twenty-year insurgency in Uganda. By 2010, the program made their shift in priorities under three
priority areas, starting with 20 projects through 2019. These projects are aimed at resilience in
agriculture-based livelihoods and are increasingly emphasizing resilience building to the effects of
climate change ("Our Office | FAO in Uganda | Food and Agriculture Organization of the United
Nations" 2019). They are also supporting in the drafting of national strategies and legislation for
"transformational development" and to "alleviate hunger". The majority of these original 20 projects have
been concluded, however the program has recently begun a new multi-sectoral project which will be
analyzed.

<center>*Current Priorities*</center>

The FAO operates following its 2015-2019 Country Programming Framework (CPF). They
developed this framework with the Ugandan Government and its other partners. As such, it reflects and is
aligned with the country's development policies including the Agriculture Sector Development strategy
and Investment Plan (DSIP) and the National Development Plan II 2015/16-2019-/20. It was also
designed to align with the UN Development Assistance Framework (UNDAF) for Uganda ("Uganda And
FAO Fostering Sustainable Development And Better Livelihoods" 2018).

FAO Uganda priorities

Priority Area 1: Production and productivity of agriculture, forestry and fisheries commodities
Priority Area 2: Agricultural knowledge and information
Priority Area 3: Resilience to Livelihood Threats with Emphasis on Climate Change

<center>21</center>

Priority Area 3 Project Example: Sure - Karamoja

This analysis will focus on FAO Uganda's Priority Area Three (3): resilience to livelihood threats with emphasis on climate change. In particular, the FAO Uganda has launched a new project entitled "Fostering Sustainability and Resilience for Food Security in the Karamoja Region (SURE–Karamoja)," which falls under Priority Area 3, and so will be highlighted as an example and analyzed on its programmatic logic. This project is a collaboration between stakeholders, with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) acting as implementing partner, the UNDP acting as National Implementation Modality and the FAO acting as Operational Partner Implementation Modality.

The timeframe of this project is starting in January 2017 and ending in December 2021, with a total budget of $65,139,450 USD. FAO will be administering $3,550,024 USD of that. The project focuses on four districts in the Karamoja sub-region with the hopes of upscaling in the future. Because there are many partners working toward this project, they all have their internal objectives, or in other words, they are participating because the projects fit into their own organizational goals. For instance, for FAO Uganda, this project fits into FAO's strategic framework.

Logical Framework

In order to assist the FAO and its partners in its monitoring and evaluation of this project, as well as to ensure that their stated goals are met, I will analyze their given indicators and outcomes in the following logical framework, in Table 1. The stated overall objective of this project is "contribute to enhancing long-term environmental sustainability and resilience of food production systems in the region." It plans to do so by "rehabilitating ecosystem services through restoration, agro-forestry, natural regeneration and sound pasture management, among other activities" ("FAO, Government of Uganda and UNDP Launch New Project to Address Food Security and Strengthen Ecosystems in Karamoja Region" 2018). This objective falls under the project's specific objective of improving "food security by addressing the environmental drivers of food insecurity and their root causes in Karamoja sub-region

("FAO, Government of Uganda and UNDP Launch New Project to Address Food Security and Strengthen Ecosystems in Karamoja Region" 2018)."

It is important to note that the FAO's role in this project is operational, while UNDP's is the in-country implementation. This distinction of duties must be considered for each of the activities presented under the outcomes. While some indicators are included in the Annex of the published project document in their results matrix, they are not specifically highlighted in the body of the project document, indicating to the reader that more emphasis is being placed on the activities to be carried out rather than the measurement of the project.

Analysis of project

This project has been thoroughly designed and well organized. That being said, there are a number of aspects that, were they to be altered, would increase the efficiency, effectiveness, and sustainability as a whole.

<div align="center">

Role distinction

</div>

Because of the large and complex nature of this project, it is imperative that every stakeholder has a very clear understanding of what activities and outcomes they are responsible for.

This project did begin to address this by specifying what each stakeholder's contributions to the project will be (FAO Uganda is "responsible for Outcomes 2 and 4, contributing partner to outcomes 1 and 3. Member of the project board, quality assurance"). However, there is not enough of a distinction between the responsibilities of the FAO and the other stakeholders. The role distinctions between FAO Uganda and UNDP are not clear enough, especially as indicated in the logical framework, and could potentially lead to disputes, duplication of work, etc.

Timeline of log frame

While the timeline of the activities is included in the workplan in the Annex, when developing a logic model, it is important to make these target times clear by incorporating them into the objectives and outcomes themselves. The specific objective also does not include the phases of time.

Wording in log frame

The project does a good job of defining what it means by resilience after it identifies resilience in its specific objectives. There are numerous instances where the word choices for the outputs, outcomes, and activities, are not the best selection for proving the objectives were met.

Having so many of the programmatic elements focused around the number of trainings given is problematic because they are not addressing monitoring the behavior change of the trainees; the number of trainings do not matter if the participants do not learn, retain, and then actually use the knowledge provided. These goals focus on the built capacity of participants, however this wording is unclear and therefore difficult to measure. Similarly, by using the word "support", there is no defined point when they would be able to measure that they have been successful in the support.

Unclear connection to larger objectives in log frame

The overall and specific objectives of CURE – Karamoja Project are not clearly recognized throughout the logical framework matrix. This is largely due to the organization of this programmatic structure; by leading the design with outcomes instead of the specific objectives, and followed by activities first rather than the indicators, that connection is not clear.

Unclear connection to FAO Uganda's strategic framework

This project focuses on activities but does not address the specific indicators they will use to actually measure the activities. It is vital that all outcomes are directly associated with how they will be

measured. Additionally, none of the objectives (or outcomes for that matter) are associated with a finite timeline.

<p style="text-align:center">Recommendations</p>

My recommendations can be categorized as larger scope and more detailed. Overall, FAO Uganda should collaborate with UNDP and MAAIF to integrate the timeframe matrix within all objectives and consequently each output, alter wording of outcome etc. to be clearly representing what can be measured, and incorporate each organization's priorities within the explanation of their roles in outcomes.

<p style="text-align:center">Include roles in the programmatic logic</p>

Due to the widespread collaboration of this project between numerous stakeholders, connect each aspect of the project framework to each organization's or program's country specific goals. For instance, since FAO Uganda has been increasingly focused on sustainable climate resilience, making that connection between each activity will be beneficial for the communities and donors. This connection should be further made to ensure that each actor can point to individual activities as being directly related to their own priorities. For instance, as it is stated that FAO's Strategic Framework includes capacity development for production systems, their role is the capacity building activities should be specifically highlighted.

Have clearly defined target dates for each objective. The objectives should also be more clearly stated within the logical framework itself, instead of within a body of descriptive text, which will also contribute to being able to clearly identify how each output is related to the larger goals.

Original Objectives	Recommended Objectives
Overall objective	*Overall objective*
"contribute to enhancing long-term environmental sustainability and resilience of food production systems in the region."	Increased environmental sustainability and resilience of food production systems in Karamoja region, Uganda by December 2021.
Posited specific objective	*Specific objective*
"rehabilitating ecosystem services through restoration, agro-forestry, natural regeneration and sound pasture management, among other activities." ("FAO, Government of Uganda and UNDP Launch New Project to Address Food Security and Strengthen Ecosystems in Karamoja Region" 2018). Improving "food security by addressing the environmental drivers of food insecurity and their root causes in Karamoja sub-region."	By 2021, improve food security by addressing the environmental drivers of food insecurity and their root causes in Karamoja sub-region through rehabilitating ecosystem services."

Change outcome and output verbiage

Following the specific examples outlined in the analysis section of this memo, FAO Uganda should work with the other stakeholders to change all outcome and output language to reflect not only what they can clearly and cost-effectively measure, but also that they can be identified as reflecting the objectives. It is also important to define all terms the first time they are mentioned, to ensure the reader can follow along.

Lessons learned

This FAO case study is representative of how collaboration amongst multiple parties in and of itself is not sufficient to effectively affect change. These strategy recommendations can also be applied for other organizations seeking similar objectives. One of the biggest lessons learned from analyzing this project is that even if there are clearly defined outcomes and planned activities, it is imperative to make sure each activity can be evaluated through specific indicators. As part of this, it is important to make sure all outcomes and outputs use appropriate verbs that target measurable changes, all of which must be clearly connected to the larger objective. Another important lesson is to ensure that if working with multiple partners, the logical framework states whom is responsible for each output and why, and not simply within the annex of the document. Organizations can learn from the detailed programmatic organization of this project, specifically those who will be partaking in multi-stakeholder collaborations.

PROJECT DESIGN

This chapter discusses the design of the capstone research project which led to the creation of the NGO, Illuminate Change. The chapter is organized by identifying the project objectives and research questions, followed by brief descriptions of the impact projects and management trainings. The project objectives and impact projects have had a transformative process over the course of a year, which will be examined in the following methodology chapter. As such, the information provided in this chapter reflect the original project design plan.

Illuminate Change Team

What started out in September of 2018 as a conversation between myself and Cyprian Kaziba, has now evolved to include a team of ten directly involved team members including four interns.

- ◊   Laura Simmons-Stern & Michal Matejczuk – MPS International Development, Cornell University
- ◊   Sarah Wasser – MPH, Cornell University
- ◊   Cyprian Kaziba – Humphrey Fellow, Cornell University; Local government official, Buvuma District
- ◊   Alex Sserwanga– Local government, Program Liaison
- ◊   Adrian Ndugwa– Community Liaison

    Interns:
    Cole Johnston – Undergraduate, Cornell University
    Wanzusi Allan – Undergraduate, Makerere University
    Mwebaze Onesmas – Undergraduate, Makerere University
    Janet Babirye– Graduated, Makerere University

Project Objectives

The following project objectives were jointly designed by three of the four Illuminate Change team members prior to field research or the extensive community interaction that followed. They were planned through initial conversations with potential stakeholders and contacts in Buvuma District.

The preliminary objectives of this project were to:

1) Improve the livelihoods and climate resiliency of sixty (60) rural smallholder women farmers in Buvuma Islands, Uganda.

2) Implement three (3) project models that support a more sustainable non-profit organizational approach to mobilize various stakeholders in individual communities and acts as a grassroots fundraiser seeking to improve conditions to address climate change.

3) Train three (3) NGOs, one hundred (100) community members carrying out impact-focused projects (including three (3) microfinance organizations with access to group funding), and develop collaborations between sixty (60) rural women farmers and regional groups with greater institutions (i.e. Makerere University) that can act as an academic support for future projects that require assistance and research (leading to secondary support to NGO programming).

4) Create a recognized NGO that is capable of carrying-on the successful implementation of the three (3) proposed projects, through the use of the trainings to train community members in the three (3) sub-counties in Buvuma. (These NGO members will also be expected to hold effective collaborative meetings with other organizations and stakeholders to exchange ideas, best practices, and develop greater networks and partnerships).

Research Questions

The primary research question for this capstone paper is:

What are effective NGO management strategies for improving livelihoods and climate change resilience in Buvuma District, Uganda?

The specific questions to support this research are:

■ What are the main impacts climate change is having on rural communities in Buvuma District,

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Uganda?

- To what extent do management trainings improve the implementation of livelihood-enhancement projects?

- How can developing partnerships with similar organizations influence the success of an NGO and the outcomes of its pilot projects?

COMMUNITY IMPACT PROJECTS AND TRAININGS

The Illuminate Change team led project implementation in close collaboration with locally-based partners in Uganda which includes three rural farmer groups, two sub-county leaders, and three microfinance organizations working in Buvuma District, and specifically, on Buvuma Island, as it is the largest, most inhabited and easiest to access. Implementation began prior to the group's summer arrival in 2019 with a focus on: 1) climate-smart demonstration gardens and food security trainings, 2) biogas systems within waste management, and 3) upcycled fishing nets and more. These project ideas were initially considered and discussed prior to the December field research through our contacts with stakeholders and knowledge from the staff member from the area. However, they were flexible and subject to change based on findings from the focus groups and discussions with community members, which is what happened. From these findings, the last project idea has changed to vocational skills training for environmental conservation. More information on these changes can be found in Chapter 3.

Climate-Smart Demonstration Gardens & Food Security Trainings

The project's first facilitation is the creation of three climate-smart demonstration gardens to act as a learning center for adopting and scaling climate-smart agriculture techniques. These demonstration gardens not only allow for practical training of farmers on improved agricultural practices, but also to encourage others to replicate what they learn in their own homes and onto their own farms, thereby accelerating the rate of potential adoption to climate-smart agriculture techniques.

Following the establishment of the gardens, rural women will participate in hands-on trainings targeting the lack of food storage and food preservation as a climate change adaptation strategy. With increasing temperatures, and shortages for water, it is imperative to utilize as much of the crop during the wet season's harvest, which will improve nutrition and more stable incomes throughout the year.

Biodigester Waste Management System

The biogas waste management project has multiple benefits, and contributes to improving livelihoods, mitigating climate change, reducing deforestation on island communities, and to make use of agricultural waste. As a source of renewable energy, biogas replaces the use of fossil fuels, as well as firewood and charcoal, by converting our waste into energy. In this project we hope to partner with a national organization (Bio Gas Solutions Ltd Uganda) and a local microfinance institution to support the creation of a scalable model.

Upcycled Fishing Nets & More

With assistance and expertise from the Uganda Industrial Research Institute (UIRI), this project hopes to partner with a microfinance institution in Buvuma District that is interested in recycling the plastic waste from the surrounding shores and community to create fishing nets (and other textile products) woven/loomed from plastic bags. These fishing nets, replacing the commonly used treated mosquito nets, have the opportunity to become an income generating activity to raise future funds for the microfinance group, and is intended to be a scalable approach in how other communities can recycle their plastic waste.

NGO MANAGEMENT TRAININGS

The management trainings target four main themes for successful project management.

- **Community Organizing** – This module focuses on three larger concepts: stakeholder engagement, community buy-in, and participatory approaches to development projects. It is important to begin the summer with this training to ensure all community members involve as much of the community as possible.

- **Managing a Nonprofit** – This training teaches the basics of two of the most vital aspects in managing a nonprofit: financing and goal-setting.

- **Monitoring, Evaluation, and Learning (MEL)** – This module addresses more specific tools for how to ensure that each project is successful and sustainable. It is designed around each stage of a project: pre, mid, and post.

- **Developing Sustainable Collaborations** – This last training session is aimed at encouraging the continued collaboration between our organization and the community members, and the stakeholders and partners we have met in Uganda. By first training the participants on best strategies for networking and then allowing them to do so in an event we hope to end the summer with plans between them to continue working together.

The management trainings will be attended by Illuminate Change staff, key leaders in the community who have expressed an interest in taking on a leadership role in the impact projects (with a heavy focus on women's participation), and local microfinance groups. The trainings are carried out sequentially to prepare for a successful transition to Illuminate Change management of the pilot projects with community ownership.

These training modules have been developed with input from local stakeholders with three overall goals:

1) providing the fundamental skills and knowledge to the community leaders to be able to effectively continue the impact projects.

2) providing current and potential future Illuminate Change members with the expertise to oversee all projects and organization management for sustained capabilities of the NGO.

3) providing interns with the opportunity to gain first-hand experience orchestrating training sessions while learning what management strategies are most imperative in a rural setting.

In the spirit of sustained management of the program, we are not simply providing the trainings and hoping for retention. Rather, we are developing a collection of user-friendly management manuals and workbooks in collaboration with our partners to leave with the community group leaders as Illuminate Change staff, to refer to and to hold future trainings. These materials, along with the tools and presentations during the actual trainings, took into account the low levels of literacy in Buvuma, and are in both English and Luganda.

Management Training #1

COMMUNITY ORGANIZING: STRATEGIES AND IMPORTANCE

This initial training session introduces three concepts that fall under community organizing for participating community members to learn about. This session connects the importance of having community engagement between community stakeholders and outside partners through our activities and by discussing the benefits of multiple perspectives. We are beginning with this session as a demonstration of our motives, ways on how to participate in each phase of the projects, and to reinforce the priorities for the organization and vision we hope to establish.

- *Effective Communication Strategies* – The first phase of this session explains the best strategies for community members to communicate with each other. Communication is also one of the most essential components to successful program management. Anyone working on these

projects must know how to effectively convey their thoughts in both a meeting and presentation setting. In addition to practicing techniques for communicating in these settings through role-play, this phase will also address proper methods of mediation and conflict resolution.

- *Community Buy-in* – The next phase of this session involves a discussion of why working on getting community buy-in from the beginning of the program is essential for sustainable success.

- *Participatory Approach* – Lastly, the participants will engage in a hands-on activity practicing one of the many example activities under the manual *Participatory Analysis for Community Action*.

Through adult learning techniques of explaining why community organizing is important, and then allowing them to put the strategies into action, the community members should leave this training session with enhanced knowledge and practical skills allowing them to involve others throughout future projects.

Management Training #2

MANAGING A NON-PROFIT: **GOAL-SETTING AND FINANCING**

This session delves into the fundamental logistics of the day-to-day operations of managing a small nonprofit in their setting focused around the following three principles.

- *Goal-setting* – This session begins with reviewing the importance of goal-setting with practices of how best to develop and stay on track with programmatic goals. Since the Village Savings and Loans Associations (VSLA) that are currently active in the district are invited to participate, they will learn how to best integrate a microfinance organization into these projects, enhancing the overall sustainability of the program.

- *Financing your Project* – This session then primarily focuses on arguably the most important aspect of success for a program – financing. If a program has no money to run it or the money it begins with is not managed properly, the projects will not last or even come to fruition. This

aspect is also crucial to focus on because the majority of the participants in these trainings have never had basic finance trainings before. The specific activities under this phase include learning and practicing how to create budget sheets, annual reports, etc. This training also introduces our Loan Program and the requirements for applying for this loan to help kick-start their project ideas. During this training we work with each group leader to develop a proposal that demonstrates their knowledge gained and sustainability plan.

Management Training #3

MONITORING, EVALUATION AND LEARNING: **BEST METHODS FOR COMMUNITY PROJECTS**

Monitoring, evaluation and learning (MEL) is a critical aspect of measuring performance in any successful project or organization. In order to improve the success and sustainability of this organization as a whole, team members will gain a basic understanding of the structure of basic MEL practice structured around the pre, mid, and post-project timeline of a given program.

- *Pre-implementation -* One example of a practice participants will learn is creating a logical framework for a project. If there is not a clear set of indicators and objectives, it becomes impossible to know what to monitor or evaluate. This results in not being able to prove that any change occurred due to the project and consequently makes it difficult to prove to donors that their money was spent on the intended changes or gain donor interest in the future.

- *Mid-project* – This phase of the training delves into the most technical and vital tools. These tools include learning the basic techniques of using the Weavers Triangle, following a project cycle, why and how to collect M&E, and developing formal surveys. They will use templates and then move on to creating their own examples from scratch.

- *Post-project* – Lastly, participants will learn how they can carry out future studies in their community and develop a written project plan. The techniques this phase focuses on are

questionnaires, household surveys, and interviews. They will learn how to adapt each of these tools for one week, one month, and every month post project completion.

For each aspect of the MEL techniques they will learn, participants will practice these skills by supporting the monitoring and evaluation efforts within the projects being implemented by our organization over the summer. In essence, they will put these new skills in action resulting in both their increased retention of the knowledge and improved MEL data to improve our projects and show our donors.

Management Training #4

DEVELOPING SUSTAINABLE COLLABORATIONS: STRATEGIES AND PRACTICES

This last session is designed to develop actual and lasting collaborations between Illuminate Change staff, community members, and external stakeholders from around Uganda. The hope is that community members will be able to demonstrate their new project successes and knowledge with partners that might be inspired to continue working with them in the future. The training will accomplish this goal through two phases: 1) a training for Illuminate Change and community leaders 2) an event bringing together each partner organization we have been collaborating with over the past year.

- *Networking Strategies* – The final management training session for both Illuminate Change staff and community group leaders will focus on how to effectively and clearly communicate the work they are doing, or more specifically, the project they have been working on. This session will introduce how to frame program priorities to different intended audiences, followed by various networking strategies.

- *Networking Event* – This event will serve as the culmination of both these management trainings and the completion of the summer impact projects. There are a few key components of this event to help promote the goal of continued collaboration past the summer.

o   We as staff members will facilitate this event by introducing presentations from each organization listing their goals and interests in working with Buvuma leaders.

o   This is followed by a presentation by the newly-formed Illuminate Change team members on their experience thus far, and their goals, to orient the attendees to the work that has happened over the year.

o   This presentation will lead into rotating working stations between organizations, with a representative from Illuminate Change at each table, with the goal of developing a plan for further collaboration and a facilitated discussion of agreed upon next steps for the community.

o   One of the activities each organization is required to perform in this session is to compare assets with one another, and map ways of assisting one another in their goals.

CHAPTER 3

METHODOLOGY

Beginning Stages: September-December

Engaging local stakeholders during each stage of this program is critical to ensure ownership, sustainability, and the future success of Illuminate Change. Prior to field research in December, the team conducted informal Skype interviews with key NGOS, the Uganda Industrial Research Institute, Makerere University, and community stakeholders and microfinance groups in Buvuma District. These interviews focused on gathering primary data of the existing challenges of their work, and interests in collaborating on our projects. They also served to establish relationships for future collaboration.

The research in December provided evidence on the community's main issues and has informed the direction we took the impact projects and training modules throughout the spring and summer program. In holding focus groups in the two identified sub-counties in Buvuma District, we built upon the knowledge and direct experience of Cyprian Kaziba (who has worked in Buvuma District for seven years) who provided us with the initial roadmap on the broader issues facing the district. Interviews and meetings with the stakeholders in both Kampala and Buvuma, form the greater framework for our summer programming.

Identified location and prepared timelines	Connected with key community contacts and stakeholders	Created M&E & Research questionnaires
• Developed budget • Applied for funding • Held weekly staff meetings	• Interviewed all contacts, government officials, and NGO leaders • Continued revising literature review and qualtitative research to support methods	• Gained IRB approval • Drew upon resources from similar organizational questions

Initial Field Research in December

3

      In December of 2018, our team conducted preliminary research in Buvuma District, Uganda. While our initial goal was to meet with 3 focus groups, we ended up conducting 16 focus groups over seven days across the two sub-counties. These focus groups consisted of 259 community members, 115 or 44% of whom were women. These groups represent VSLAs, farmers, fishermen, and often a combination of all three. We were additionally able to hold three introductory meetings to gain support of community leaders, 2 government staff council meetings, and a kick-off meeting where representatives of 14 community groups attended. Profiles of each of these community groups can be found in the appendix. These profiles reflect the information we collected during this research including their current group projects and priorities, or topics of interest for future projects.

      At this meeting they began collaborating between themselves, learned what projects and future interests each other had, did community mapping, asset mapping, priority setting, and selected their own priority projects as they relate to our support focus on the three project areas. We also provided them with basic project management and

Community Group members mapping their community.

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[3] Unless otherwise noted, all pictures are credited to the author, Laura Simmons-Stern.

development worksheets and training to begin steps to start preparing for these projects. Our team also began conducting individual interviews which we video recorded.

Additionally, while in Kampala, our team was able to hold meetings with nine stakeholder organizations (see Appendix for profiles). Some of these partners began holding their own research and implementing trainings over the next six months under this collaboration.

Met with national and local stakeholders	→	Met with community leaders and government

Held focus groups •Held kick-off event with training and next steps •Including daily debriefs with the team	→	Identified priority needs and interests and adjust projects to fit •Made changes to design and implementation plan accordingly
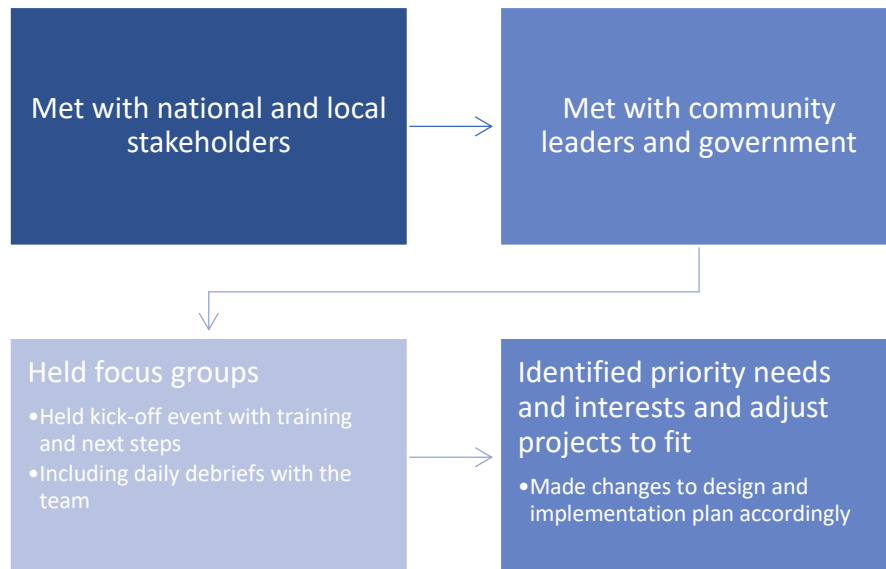
Spring Stage: January-May

During the month of February one of our implementing partners, the National Agricultural Research Organization (NACCRI) conducted a field scope within Buvuma District on our behalf, after continued communication and following the information received in our December Research Report which we sent to all stakeholders. We then coordinated efforts for a March/April/May implementation of demonstration gardens with drought resistant seeds. These gardens provided numerous benefits to our

rural farming groups and helped to address the growing need for practical (and effective) examples on how to apply best agricultural practices.

In speaking with two of Uganda's leading biogas waste management companies, we worked on finalizing training dates for the rural farming groups that have not only shown the most interest, but also have begun a workplan that states their current and future participation using this waste management system. The development of the food security and public health trainings were also developed in this time for summer implementation, led by Michal, including research discovered by a recent trip to Kerala, India by both Laura and Michal that shed light on various post-harvest interventions that can promote an extended shelf life of different vegetables and fruits also represented in Uganda.

In our December trip we met with the Uganda Industrial Research Institute who not only showed us the project portfolios they are initiating, but ones that seek to engage with our team's focus on many items that can potentially raise farmer livelihoods. Two of the projects that stood out were their textile production unit, and a bio-briquette processor; both of which included parameters that can help generate potential income, while at the same time promoting environmentally sustainability.

We also began developing the management trainings for the community groups. We collaborated with stakeholders to ensure the key messages and skills they believe will make these impact projects successful were appropriately conveyed. I developed these trainings following the 4MAT method that uses adult learning strategies including motivation, application and practice.

We also continued developing a partnership with Makerere University during this stage, with the end goal of developing an internship program over the summer for a couple of their undergraduate students, and to work closely with our other stakeholders. We simultaneously worked on rolling out a new NGO name, website, vision, and mission, which focuses on the importance of multi-stakeholder collaboration to enhance the impact projects can have on livelihood development.

We continued to hold scheduled check-in meetings with our local government contacts in Buvuma District who, in turn, communicated with each community group to keep them accountable,

make sure their project ideas were moving forward, and determine in what ways they would like support from us or potentially our stakeholders. This also helped to inform stakeholders of which and when introductory trainings should be held. We used this information to keep track of their profiles of what they have done thus far, leading to our eventual decision on which of the 15 community groups we could focus our resources on for carrying out the demonstration projects.

These check-ins also included having local government partners secure a location and building towards the vocational trainings, which in the future might turn into a Vocation Training Center. We also began brainstorming Income-Generating Activities (IGAs) for the NGO itself to be more sustainably funded.

Make changes to design and implementation plan accordingly •Identify priority needs and interests and adjust projects to fit	Idenfity community groups to be demonstration sites
Bring on additional staff members and connect with more knowledge-sharers	Develop and launch dual internship program
Develop training manuals	Launch NGO •Register in both countries •Ensure mission and vision align with community priorities

End stage for capstone: June and July

In the summer, we began by conducting focus groups interviews and individual interviews using the network we previously built in December, and included: 1) visual charting, such as resource mapping and timelines with separate groups of women and men, 2) storytelling, 3) transcription, 4) translating field notes, 5) possible audio and visual recordings of interviews, as well as 6) verification and validation throughout the process which will also serve to expand on initial responses by community members. We had selected two primary site locations for our impact trainings in Busamuzi and Buvuma Town Council sub-counties based on prior criteria that NACCRI had used for its demonstration garden sites, including most equitable access to all community groups and pre-preparation of land.

Through our constant and continued conversations with our partners in Buvuma and the Field Visit Report from NACCRI, we were able to identify four sites for initial demonstration project implementation. These four community groups represent the two sub-counties equally.

The first site was Nkere, next to the landing site for the island. The community group that resides there is the Nkere Tusituke-Tutambule Farmers Group, which translates to the Nkere Get-up-and-move! Farmers Group. A brief description of the challenges and goals for the group are nicely explained in the following two pictures (credit to the Chairman for putting this together). Since our trainings, they have

Nkere Group members practice triangular planting with natural pest repellent garlic and ginger.

taken up bio-briquette making, building a solar dryer for fruits and vegetables, and making additional CSA gardens using the techniques we taught them. [4]

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[4] Photo credit Michal Matejczuk.
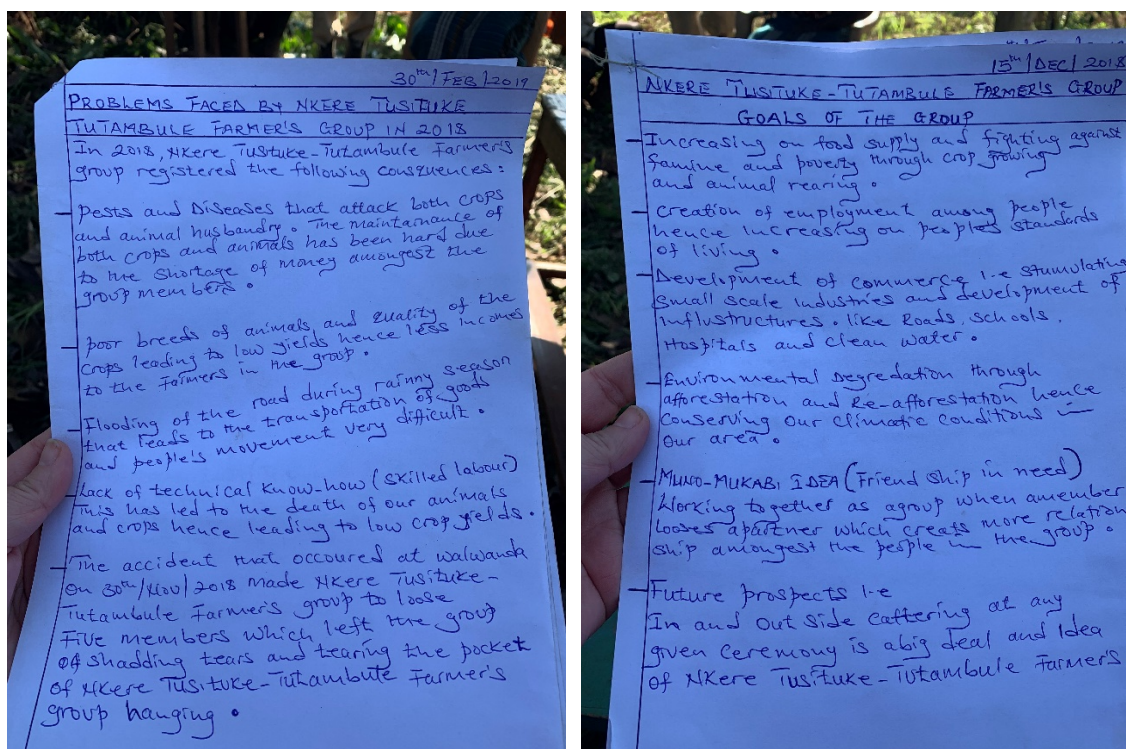
The second location in Busamuzi sub-county was Nkoka, approximately 30 minutes by boda-boda drive inland from the first. Nkoka was very interested in the water-saving techniques in our CSA trainings, and in animal rearing.

Nkoka Group members practice learn about using berms for water retention.

Over two months we implemented our pilot demonstration projects and the program management trainings. The pilot projects were carried out through a series of practical trainings, each training delivered in two different locations within each sub-county, each month, for a total of four replications of each training session.[5]

Nkoka bio-briquette training

Each of the management trainings were repeated twice, the first month they were conducted for the leaders in Buvuma Town Council, and the second month in Busamuzi Sub-County.

Feedback of the management trainings through pre-and post-surveys[6] also demonstrated knowledge gained and allowed us to make changes throughout the trainings. Continued monitoring and evaluation of both the impact projects and management trainings revealed the success of knowledge gained and development of each project. This also allowed us to follow up on answering any new questions from the participants.


MEL of projects and dietary assessments
in Nkere with IC staff and interns.

[5] See the appendix for a more detailed calendar of events.
[6] For an example of post-training M&E questions see appendix.

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A large part of our project implementation included managing three interns, two from Makerere University, and one from Cornell University. We worked with these interns on developing their skills while allowing them to contribute to the projects and gain first-hand experience in the field. Lastly, we identified potential staff members to continue to oversee the projects following the summer programming, and left management workbooks and guidebooks for every training for sustained success of the projects and the organization. Continuity and sustainability of the organization and each project we initiated were of upmost concern for us from the beginning. As such, the program design to train community leaders to join our organization in the future, was an important step. The flow chart of information and follow-up with the projects shown below demonstrates our current plan for ensuring success and support for the community groups after our group left in the summer.

This sustainability organizational plan following August 2019 is as follows:

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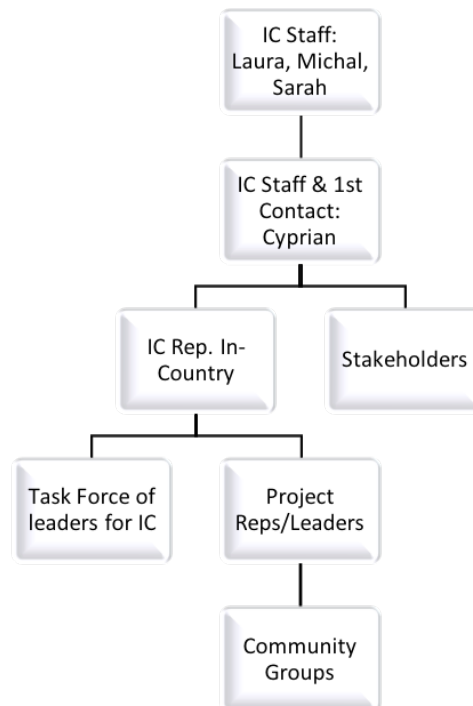
[7] Author's own creation

As this chart shows, chosen representatives of each community group will be in direct communication with the Illuminate Change country representative, to be selected at the end of the summer. The newly formed task force of all the community leaders will also regularly report to the country representative. This person will make regular visits to the groups as well and report to Cyprian on a monthly basis or as concerns arise. Cyprian will then communicate the progress, any issues, and developments he has learned from the representative, along with stakeholder initiatives, to the rest of the Illuminate Change staff at monthly Skype meetings. During these meetings we will collaborate to resolve any problems, and give direct feedback to the groups that will be passed through our field representatives.

Coordinate pre-arrival logistics with local partners
- Mobilize groups to be in attendance at trainings

Meet with all local leaders
- Local government
- DISO, RDC, Agriculture officer, etc.
- Send official letter to national government

Implement trainings
- Hold daily reflections with interns and staff meetings
- Conduct continuous M&E
- Support interns in developing their personal projects

Meet with stakeholders
- Invite to and plan closing networking event
- Meet with selected local leaders who will be responsible for further M&E and connect with us starting in August

Hold final reflections and feedback with interns and community groups

CHAPTER 4

RESULTS & DISCUSSION

IC Staff and interns with a few Nkere group members at their
new CSA demonstration garden

Findings of Community Challenges from Initial Field Research in December

Below are the most pertinent challenges facing community members in Buvuma Island as
compiled from our focus group research in December.

- There has been minimal access to outside organizations → limited trainings provided due to lack of access → groups are operating projects without full-working knowledge.

- There has also been a lack of practical demonstrations, particularly of climate-smart agriculture methods.

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[8] Photo credit: Wazusi Allan, IC Intern

- Even though they are physically close to one another, the groups do not collaborate often. This is partly due to three issues: competition between groups, a lack of confidence of their own skills, and lack of trust to teach and learn from each other respectively.

  - One example is one community group had a fish farm they had spent a year digging, which was then poisoned by neighbors.

- There is an expectation from outsiders regarding materials, gifts, or financial assistance.

- Access to reasonable and fair markets is threatened by mainland traders and lack of reliable transport options.

- They have increasingly small plots of land in part because of the Oil Palm Project (VODP/Bidico) which has been either paying off or displacing people, though the specific methods were not made clear.

  - Therefore, there is a greater need for more productivity using less land.

- Due to the declining profitability from agriculture, most community members ventured to the lake for fishermen work, but now because of overfishing some are going back to agriculture where the land allotment is much smaller.

Our team is continuing to collaborate with multidisciplinary stakeholders to develop pilot projects on improvement on climate change resilience, food security, nutrition, and health, and returned to Uganda in June to continue implementations.

How December Field Research Changed the Program Approach

One major theme that came out of our research in December is that there is a lack of transferable skills to improve incomes. Therefore, we designed each of our impact projects to have an underlying goal of vocational training or transferable skills. The management trainings were also further adapted to reflect their priority of business and financial management skills.

#	Original Objectives	Changed Objectives Informed by December Research
1	Improve the livelihoods and climate resiliency of 60 rural smallholder women farmers in Buvuma Islands, Uganda. We combined this with the second: Implement three project models that support a more sustainable non-profit organizational approach to mobilize various stakeholders in individual communities and acts as a grassroots fundraiser seeking to improve conditions to address climate change.	**Waste management → environmental conservation** 1. This research has led us to understand that the larger underlying issue that we need to focus on is the introduction of **vocational skills.** 2. Deforestation has been impacting them greatly - and with the Oil Palm development project, will continue to be a problem. 3. We also found that plastic waste was less of an issue on the island because people do not have the income to consume large quantities of packaged items like bottled water, chips, etc. Therefore, we are shifting our focus from waste management to environmental conservation efforts. Specifically, we are pursuing introduction bio-briquets as a method for conservation that aligns with vocational skills.
2	Initiate collaborations between one NGO, three microfinance groups, and three institutions (i.e. Makerere University, UIRI) that provide support for future projects needing assistance and academic research.	**Three microfinance groups → six community groups.** After meeting with all of the groups we realized that there was much less of a distinction between groups that were solely microfinance focused or general community groups. We found that the majority of the groups we met with were in fact community groups that had developed a system of savings and loans on a small scale to help fund their group project interests. The number also doubled due to the number of interested groups and the fact that we were planning to carry out three different impact projects in two sub-counties simultaneously.
3	Train three NGOs, 100 community members carrying out impact-focused projects (including three microfinance organizations with access to group funding), and develop collaborations between 60 rural women farmers and regional groups with greater institutions (i.e. Makerere University) that can act as an academic support for future projects that require assistance and research (leading to secondary support to NGO programming).	Training for six (not three) community groups. Again, due to the blurred line between microfinance and community group, we decided to combine these leader categories. Since we met with 16 groups instead of the 3 original, and only 6 will now serve as the sites for the demonstration projects, we want to make sure that we do not leave them behind or create false expectations. We want to develop a plan of keeping them in a pipeline. We took the groups' self-identified priority projects and compiled that with our priorities, to develop the

		narrowed plan for which 6 of 16 groups we will be working with.
4	Create a recognized NGO that is capable of carrying-on the successful implementation of the three proposed projects, through the use of the trainings to train community members in the three sub-counties in Buvuma.	We knew that the two components to making this objective category a reality were the management **trainings** and creating a **sustainability plan**.

Through this process, the modified and final objectives of this project are to:

1. Implement three impact-driven projects that support a more sustainable approach to mobilize 60 rural stakeholders in the community, and acts as a grassroots initiative to improve conditions related to climate change, food security, and environmental conservation.

2. Initiate collaborations between one NGO (Illuminate Change), six community groups, and three institutions (i.e. Makerere University, UIRI) that provide support for future projects needing assistance and academic research.

3. Facilitate four management training modules for one NGO, three microfinance leaders, and six community group representatives to improve the success and sustainability of the three projects being implemented.

4. Establish an organizational framework for one organization (Illuminate Change) capable of managing and expanding the three projects, leading to the expansion of a non-governmental organization.

    a. This NGO is expected to hold routine meetings with other organizations and stakeholders to exchange knowledge, best practices, and develop a greater network and partnerships.

Community-identified priorities:

After conducting an additional activity at the Kick-Off event in December with each community group where we walked them through determining their own group priorities for future projects, and consolidating these results, the following list are the top priorities of all the community groups.

1. Agricultural "Best Practices" Trainings
2. Vocational trainings on soft/hard skills (especially for youth and women)
3. Biogas Waste Management
4. Fisheries: Cage Fish Farming; Pond Farming
5. Animal rearing (diary, piggery, goats, poultry, etc.)
6. Reforestation
7. Bees keeping
8. Healthcare access improvement

These priorities developed by the community leaders was then used to inform our impact projects and trainings.

Original Projects		Final Projects Informed by Communities
Climate-Smart Demonstration Gardens & Food Security Trainings	→	Our original plan did not include larger-scale CSA trainings, however after our collaboration with NACCRI, we were able to develop a partnership where they could deliver these trainings directly to the community groups. This addition also more fully addressed community priorities for improving the resilience of their larger fields.
Biodigester Waste Management System	→	The BioGas Uganda Company might implement trainings and two systems in the future. There were two companies we met with to determine best fit, however there was not sufficient time to coordinate this before the summer programming ended.
Upcycled Fishing Nets & More	→	This project was completely changed following our December research, to directly address the communities' priorities for vocational training and environmental conservation. We also found during this field research that the information we had gathered and heard regarding plastic contamination was not wholly accurate and would not support our initial plan.

This project consequently turned into bio-briquette making with the future support of UIRI. This project theme also ended up including a training on solar drying of fruits and vegetables from their crops, drawing on the success of a local Ugandan woman who shared her materials with our groups for their construction. |

Management Trainings[9]

→ We decided to implement one training every week of our two-month implementation over the summer, to correspond with the implementation of the impact projects, so that participants could practice the trainings on the actual projects they would be taking over. As such, the plan changed to hold the sessions twice, to allow for maximum community participation, reinforce ideas, evaluate knowledge, and enhance community management of the projects as they progress.

We also decided to move Stakeholder Engagement and Communication Strategies under the first training, to ensure adequate time for finance and goal-setting in the second training, based on the communities' priority of financial management.

These collaborations we had in the field helped inform this internal document for further targeted stakeholder engagement. See Appendix for more detailed strategic stakeholder mapping tools used in future planning.

Community level	National level	International level
-Local government officials -Group leaders -Group members -Their families -Vendors we support -Local CBOs working in the district -Elders	-Makerere University professor, student leader -2 Makerere University interns -Biogas company -Ugandan Government Agricultural Research Institute -Other NGOs working in Uganda -News outlets - Daily Monitor -Peace Corps Uganda -National Government Palm Oil Project	-The three other team members working to set up this NGO -Cornell intern -Cornell professors working with us -Funders and donors including the Institute for African Development, and others we want to reach out to -TechnoServe -Cornell Alumni Network

Figure 2. IC Stakeholders 2018-2019

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[9] For an example Management Training Lesson/Facilitation Plan see Appendix.

Reflections from December Research

The following are specific, unfiltered reflections from our team's experiences for carrying out the program. The reflections are divided between real-time, immediately after our completion of the December research trip for what to consider or change for our summer return, followed by final reflections after the completion of initial implementation during the summer. These reflections address both logistical and managerial considerations. While these considerations are a direct result of our work in Buvuma District, many, if not all, are relatable for other organization work in remote locations.

Logistics

There were numerous logistical aspects of working in a remote, rural district in Uganda that, after our initial experience in December, we recognized as being important to consider for future work.

When planning the December research, we had originally prepared to use the local boda-bodas (motorcycles) on the island for transportation to the various communities. However, it was not until we arrived in country that we realized the roads had become increasingly muddy with the recent rains, and it would be difficult to find three boda-bodas at all times for all of us to move (there are no paved roads on the island). In the end we were able to rent a car and carry it over on the ferry with us from Kampala. Even with the car there were times, including the day of our arrival, that the roads were completely impassable due to construction and flooding. Therefore, we needed to think of alternative transport means beforehand for further trips. This could look like arranging to hire a private car in advance and having more concrete back-up options.

Similarly, while our plan was to take the ferry over to the island on a certain day, which was inflexible due to our tight schedule of meetings, it turned out that the night before our first trip, the ferry had broken down and was being repaired due to its old age. While it is difficult to ensure unforeseen setbacks do not happen, two ways to prepare in this instance are to check for time to time updates on ferry availability and organize the schedule as such that it allows for changes in travel.

Other related logistical considerations we identified as crucial after our first field visit are the following.

- Identify accommodation in advance; both for us and for Makerere interns since we will be a larger group.

- Think about food in advance; whether to prepare own food or make arrangements with a service provider. Since there is only one woman who cooks for a restaurant on the island, a large group might be overwhelming.

- Working space; we needed to think about what our working space and computers will be if possible. Internet and electricity are unreliable.

Management

There were numerous management practices that we initiated from the beginning that led to the success of our initial field work in December and that should serve as standard practices for our future work and for similar NGOs.

Having mobilization and coordination on the ground prior to our arrival by local government was imperative to our success over December. Every community member was aware of our arrival, waiting, and present for us. This sped up the process, making it possible for us to meet with as many groups as we did in a short time. Having the first communication by these local government officials additionally helped with community buy-in. We also had a government leader come with us to each meeting and introduce us and the project; doing so allowed us to expand upon the established respect between the communities and government officials, helping to build trust and buy-in.

That being said, we noticed that through the multiple people that were taking notes (not including us when we were actively conducting the activities), including the local officials, we ended up having varying content and depth of information captured. This hindered the ease of writing a research update

report for our stakeholders and in the general organization of our information that informed our projects. Therefore, among the preparations for such field work especially when working with partners from different background, organizations should conduct a training on what type of note-taking is expected for all involved, including doing practices to ensure the results will be consistent.

Relatedly, there is great need to make sure there are clear internal and external expectations and rules set well beforehand. Internally, this will ensure all staff and partners are in the loop on actions they need to be, easing confusion and possible conflict in the future. Externally, it is vital that all community members including government officials and leaders be included during every step of the process and that their expectations match what the organization is delivering. This process needs to begin well before any planning takes place, and certainly before arriving to the site.

It was also important and helpful for us to hold wrap-up and reflective meetings at the end of each day. This helped us make real-time changes such as when to do PACA tools or not, and lead to the creation of the kick-off meeting, which would not have happened without those discussions.

We should have had a more effective system for taking detailed notes including having direct translations. Our plan of having these local partners be paid and take detailed notes was not completely effective, and as a result, we have lost out on capturing some important information. While we do have full voice recordings of each meeting, it is more laborious to go through those.

When considering our future field work we recognized that we also need to make sure to hold timelier wrap-up reflection and note review after the trip, and not let busy schedules get in the way. By doing so we can capture everyone's thoughts, considerations and prepare for next steps, while it is still fresh.

Lastly, we recognized the importance of leaving behind easy-to-follow tools and resources for the community members to use independently. We knew that attending only one training would not be sufficient for knowledge retention. We therefore began developing more of a 'toolroom' rather than a 'toolkit' for our management and trainings for the summer.

Culture

After our experience holding many meetings with community groups, one of the most important cultural aspects that we should have emphasized more was to keep in mind and to schedule in the meetings at least 15-30 minutes of introductions, prayers, and impromptu meals. Not having this built into the plan led to us being late to sequential meetings.

Our experience holding the focus groups led us to consider how to develop ways to encourage the leaders, elders and men to not take over the conversations to have more representative conversations. We found that while these participants had quite productive and thoughtful information and opinions to provide, we were hearing more from them than from the women. As we wanted to make sure we had accurate and demonstrative information and participation, we made an effort to respectfully encourage the quieter women what their thoughts were during the conversations. That being said, cultural respect was of course a main priority of ours, and again, a big asset was to have local and respected leaders who had joined us for these meetings to be the ones to thank the leaders and men for their contributions and gently shift the conversation and pointedly ask what the women thought. This was especially important when speaking with women's' groups who had a male attend the conversations but was not part of the group.

Another cultural consideration that is important to make is what the more and less productive days including holidays are in the community. For example, in Buvuma we knew to not schedule events on Sundays or Mondays because many people, especially government employees leave the island to visit family from Thursday to Monday. This hindered the amount of time we would be able to conduct meetings, focus groups, and trainings. Another related important cultural aspect that we recognized as needing to remember for future work is to account for the culture that if holding an event over an hour or close to lunch time, it is expected to provide a full meal including rice, posho, or matoke. Not doing so risks community members viewing the organization as disrespectful.

Aside from the local cultural context, working with diverse partners and stakeholders meant that we needed to consider their different priorities, cultures, and scope of work. As such, it was important to

identify commonalities between them and to rally around a common goal. We also tried to rally not just local government partners but specifically people who are respected and get things done in the community. Because leadership roles are considered so highly in the community, we wanted to ensure that we maintained an equity in participation and eventual determination of future Illuminate Change community liaisons.

Additional Observations and Reflections from Summer Field Work

Providing trainings in centralized locations was imperative to our ability to get through all of our trainings due to lack of time and resources. However, this also limited the number of community group representation we had at each training. Ideally in the future, we will have more training sites to allow for easier transportation and access for all interested group members to attend.

Some of the practices we used that proved successful include, debriefing the icebreakers, giving personal examples for each concept, writing in Luganda and using pictures, making sure as facilitators we were integrated in the circle rather than sitting in front at a table, keeping our training plans flexible, and making last-minute changes based on feedback from participants to ensure information that is of most interest to them is shared.

Although it logistically made sense to split the impact and management trainings by sub-county, it would be better next round to conduct both in one sub-county at a time. This is because the introduction of the loan and project planning would be more effective if it were introduced at the same time as the impact project trainings. For example, the leaders in Buvuma Town Council received the management trainings in the first month, and the impact project trainings in the second, and so were not fully aware of the projects they might consider for their loan applications.

The cross-cultural internship program was one of the great successes for Illuminate Change. Though it was a lot to plan and organize at the same time as the first summer of implementation of projects, their participation played a big role in the impact the projects had. Next round I would also like

to make an internship workbook for daily intern reflections and make laminated emergency contacts or wristbands for the interns.

Another consideration learned from this experience was the importance of flexibility in the stakeholder collaboration field. New partners are going to show up when least expected and it was fruitful for us to recognize that there is always a way to align interests. Two examples of these new partnerships that developed over the summer was the owner of the guest house we stayed in who was interested in turning that space into a demonstration training center using our projects, and a network of Cornell Ugandan Alumni.

Outcomes

Objectives	Outcomes August 2019
1 Implement three impact-driven projects, mobilizing 60 rural stakeholders to improve conditions related to climate change, food security, and environmental conservation.	Over 60 community members are currently continuing the impact projects we implemented on CSA, fermentation, and bio-briquettes. With the intern projects adding four more projects falling under the same goals.
1. Initiate collaborations between Illuminate Change (IC), six community groups, and three institutions that provide support for future projects needing assistance and academic research.	In addition to connecting NACCRI to six community groups through their two trips and trainings, we also directly connected our partners to all of the groups through the closing networking event. Collaborations with Makerere University and the groups was strong and we hope will continue. While we are still in communication with BioGas, Technoserve, Daily Monitor, and UIRI, and plan to help connect them with Buvuma in the future, there was not enough time over summer programming to initiate those direct collaborations.
2. Facilitate four management training modules for IC, three microfinance leaders, and six community group representatives to improve the success and sustainability of the three projects being implemented.	Not only did we facilitate each of the four trainings twice (once in each sub-county) with representatives from all three categories, but from our evaluations immediately following, and for weeks after, found that each was successful in improving knowledge. The group projects are currently being carried out using the tools and worksheets we provided.

3. Establish an organizational framework for Illuminate Change capable of managing and expanding the three projects, leading to the expansion of an NGO.

   a. Hold routine meetings with other organizations and stakeholders to exchange knowledge, best practices, and develop a greater network and partnerships.

At the time of this writing, we are still in the process of developing this framework and have not yet officially registered. However, we do have a sustainability plan in place including future responsibilities, monthly meetings, an organizational chart for staff and community responsibilities, and will continue to hold meetings with current and potential partners.

As stated at the beginning of this paper, one of the goals of this work was to bridge a gap in traditional development project management and implementation techniques. One anecdote from the summer encapsulates our success in bringing a new approach to development to the island; during one of our introduction meetings with a local government leader for Buvuma District, one of the first questions he asked us was 'what materials are we giving to the communities?'. We explained that unlike other development projects they were accustomed to, what we are 'giving' to the community is knowledge. He proceeded to exclaim how different that approach was and that he would like to connect us to the other couple of programs that were giving out food and medicine, to help them develop an educational component.
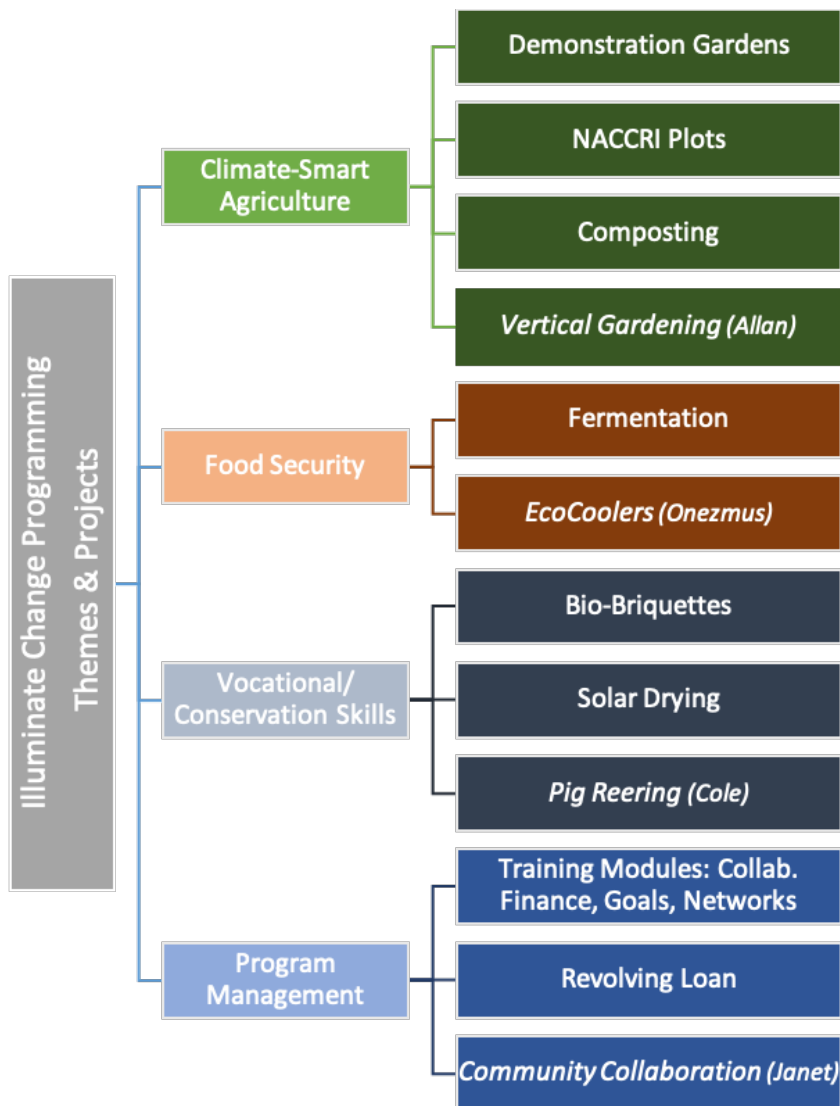
The projects themselves evolved even during summer implementation. The organizational chart of these final completed projects is below.

Additional results from the summer implementations include:

Management tools were used by each community group to further prioritize and create budgeting and timelines for project implementation (examples of the worksheets below).

The training participants have begun creating bio-briquettes on a group scale and they are working efficiently and garnering increased interest.

Additional projects were initiated through new trainings, including on vertical gardening, solar drying, and pig rearing which participants are planning to continue developing in the coming months.

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[10] Photo credit: Sarah Wasser; Nkere Chief showing his vertical garden demonstration and the group with their solar drier.

CHAPTER 5

LESSONS LEARNED / FURTHER WORK NEEDED

It is important to note that this study has been just one of numerous organization practices that consider community and stakeholder collaboration in climate change resilience work. This paper is not assuming that the strategies used or suggested here are all-encompassing nor are revolutionary in the field. However, it has put certain NGO management strategies to the test throughout the process of the development of Illuminate Change and its projects and has demonstrated the validity of the importance of following suggested strategies from other actors in the field.

What are effective NGO management strategies for improving livelihoods and climate change resilience in Buvuma District, Uganda?

This paper has mentioned many strategy practices for effective NGO management particularly through the lens of working in the Lake Victoria Basin. To synthesize the most important aspects for consideration, I have identified four that will make the most impact for NGOs working in the climate change and livelihood development sector in a rural setting. These four are as follows.

1. Engage in networks of knowledge-sharing

2. Diversify funding

3. Improve effectiveness of climate communication with both donors and beneficiaries

4. Follow USAID's CLA model considering community context

Many NGOs tend to be resource-limited and small organizations particularly lack specialized knowledge on all aspects of the multisectoral cross-cutting issues that impact climate change effects, and so there is still a large demand for increasing both creation and availability of access to climate learning tools. In order for each NGO entity to make the most impact efficiently, they must join forces to fill in knowledge gaps for each other and learn from each other's' practices and experiences more than they currently are. Since "our existing methodological toolbox is sparsely equipped", and there is still an "absence of learning tools that explicitly encourage adaptation processes," NGOs should focus on furthering the creation and sharing of tools (Tschakert and Dietrich 2010).

In this age of technology, it is only fitting that NGOs take to the internet to further their goals. There are numerous online platforms for knowledge sharing of climate change adaptation strategies, such as Weadapt.org (Thomsen 2016). WeADAPT provides over 1000 case studies and articles, as well as access to Knowledge Partners, numerous other online networks such as CARE's Adaptation Learning Programme, discussion forums and lists of individuals and organizations wanting to collaborate. Two other noteworthy knowledge sharing platforms are: Climate Adaptation Knowledge Exchange (CAKE www.cakex.org), and The Change Agency, (www.thechangeagency.org) (Thomsen 2016).

The success of food security projects also relies heavily on the input of local knowledge, because each community context plays a large role in how the project should be developed. In other words, "combining local and scientific knowledge systems is important for making climate information relevant locally and for empowering communities" (Liwenga, Jalloh, and Mogaka 2014). Four billion people now use the internet, demonstrating that by using online platforms for knowledge sharing on best practices for effecting change, NGOs will be able to reach a much larger audience ("Digital in 2018: World's Internet Users Pass the 4 Billion Mark" 2018). We have already established the importance and impact that networks of knowledge sharing between organizations can have, and so by expanding this sharing to an

online platform, the access and therefore potential increase in scale of effective projects and strategies can increase dramatically.

Since climate change is a deeply multi-sectoral issue, bringing together NGOs from many sectors is one approach to dealing with the many sides of the issue, to result in more sustainable and wholistic changes. Working with partners and stakeholders from different expertise to develop intensive climate-smart communities is another approach that has proven successful. The concept is that by pooling approaches and solutions that address multiple aspects and underlying causes of climate vulnerability (the nexus) into one location, communities will see the most impact. Relying on other NGOs who have the expertise and resources to focus on one aspect and connect that to a larger systems approach will also result in more efficient spending of funds while having more sustainable results.

One example of this is the International Crops Research Institute for the Semi-Arid Tropics' (ICRISAT) work on creating Climate-Smart Villages to help farmers in India, Kenya, Niger, Nigeria, Mali, Mozambique, Zimbabwe, Ethiopia, Malawi, and India ("Coping with Climate Change – ICRISAT" 2016). These villages are just one of the many projects ICRISAT works on, and they are not the only organization implementing the concept of climate-smart villages. While they are a research institute, they partner with numerous NGOs who are well-versed in the country-specific contexts needed to make the projects successful. Their specific approaches that are implemented in each village are: watershed management, futuristic multi-model, agricultural and digital technologies, meteorological advisory and farm systems approach, and climate and crop modelling ("Building Climate Smart Villages" 2016). Each of these methods play into the larger system of causes of food insecurity.

The concept of developing collaborative networks between NGOs is certainly not a new one, yet there is still a long way to go in the space. The case of Uganda is no different. One example is the Ugandan National NGO Forum which was launched in 1997 to bring together organizations and all actors in civil society to address policy issues and networking across all development themes. One of the ways this coalition has been able to build the capacity of these organizations is by providing connections

between them and the district governments. This has allowed them to more directly align their funding proposals to district priorities and general enhanced relationships to the local government, improving their funding opportunities. To date, the coalition has built the capacity of 2567 NGOs across 61 districts. They have also developed District Networks, or DNs, which are serving as information hubs. These are incredibly useful methods for increasing collaboration between actors, and if these DNs could also separate into specialized subsectors that would allow for even greater knowledge-sharing on a condensed and focused arena. There are currently 400 active members of the coalition. One limiting factor for full inclusion and especially for the most grassroots-level changemakers is the membership fees which range from 50-500 Ugandan shillings. More support must be given to such endeavors to reach beyond one network ("Capacity Development – Uganda National NGO Forum" n.d.).

Illuminate Change's work throughout this year has been centered around networks and knowledge-sharing, which has shown to be integral in our initial successes. This sharing of knowledge has been both internal and amongst stakeholders, both of which were important. One example is our internship program which allowed students from different backgrounds, educations, and cultures to exchange stories and their project interests and knowledge on a daily basis. In terms of our program objective effectiveness, promoting this collaboration and exchange resulted in deepened partnerships and three new projects led by the interns. The internship program was successful in providing flexibility for the interns to develop their own projects but that also complemented and furthered our program goals.

IC Interns Allan, Cole, and Onesmas

Another example is our facilitation of knowledge-sharing between community groups and between the groups and stakeholders from mainland Uganda. Specifically, we helped connect one community group who was interested in starting a pig rearing business with another group who had been successful in doing so, to have the latter share how to begin their business. Knowledge-sharing and collaboration is especially crucial when working in a rural setting, and particularly in the Lake Victoria Basin, as access is already inherently limited due to the location. The majority of stakeholders and partners that we communicated with throughout this process had never heard of Buvuma District, let alone implemented any projects in the area.

Our team additionally served as a catalyst through enhancing relationships between local government officials and the sub-county groups. Firstly, community members were accustomed to meeting at government buildings, making them convenient locations for some of our work. However, by bringing both parties together to work jointly on projects they were able to learn from each other, and develop more in-depth trust and support. Our final networking event that brought together all of our stakeholders and groups was also a rewarding opportunity for local officials to learn about what others from other sub-counties, as well as other regions of the country, were doing. This allowed them to begin the process of being inspired by each other and plan future collaborative work.

Lastly, engaging in networks of knowledge-sharing has been vital in the sustainability of our organization and each community project we have begun. Through sharing our reports and knowledge of the challenges and potentials, we have begun to draw increased interest in the area which will hopefully continue to grow in the future. The level of collaboration and networking we achieved was also integral in ensuring the continuity of the projects and organization as a whole. By developing relationships and connections with the local leaders, government, and external multi-sectoral stakeholders, we were able to develop a network of communication and support that will allow us to continue the programming for the future. Specifically, our organizational flowchart of support and accountability for after the summer programming was only made possible through joint planning and trust between us, our local partners and

field staff, newfound community leaders from the management trainings, and the mainland stakeholders. The revolving loan fund has now seen six community groups successfully apply for and win funding from us for their new projects they developed with our support from the management trainings. They will report their progress and be supported in person by our new connections on the ground. Furthermore, our deepening relationship with Makerere University has allowed us to already be planning a growing internship program for the following year.

Community group leaders from Buvuma Town Council and Busamuzi Sub-County share their work and ideas at IC's first Networking Event.

STRATEGY 2. DIVERSIFY FUNDING

On the journey that we took to develop and manage Illuminate Change and its projects, one of our first obstacles was finding funding. As was discussed earlier, the majority of organizations, and particularly when first starting out, face a challenge of finding and competing for funding from limited sources. The inherent funding structure for NGOs especially environmental organizations not only makes

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[11] Photo credit: Sarah Wasser

it difficult to initiate (in part due to the lack of evidence of success), but also is an underlying reason for the lack of collaboration, which we know is essential for continued change-making.

One approach to do so is to diversify resource mobilization strategies or funding sources to be able to focus on bottom-up local context missions. This allows NGOs overall to be able to provide more sustainable solutions to climate change impacts on food insecurity. There are many practices for resource mobilization that have proved effective for NGOs in the past. One such practice is to incorporate cost-recovery components in program design which could manifest as having beneficiaries pay a portion of program costs including in-kind contributions or per service (per bucket of clean water from new sanitation center for example). Another practice illustration is to incorporate "commercial ventures" into the organizational framework, like merchandise, training charges or membership fees (Viravaidya and Hayssen 2001).

Similarly, another successful way of diversifying is through creating a consecutive hybrid for-profit, non-profit model, such as running a for-profit clinic in a more financially stable city and using that revenue to support a free clinic in a more impoverished area. Related, there is a more recent trend of NGOs exploring social entrepreneurial roles such as SolarAid or Grameen Shakti, to create financial sustainability ("The Sustainable NGO: Why Resourcing Matters" 2014). There should be more growth and development of these types of social enterprises, linking private and public partnerships and businesses.

Apart from the social entrepreneurial model, or especially during the beginning or early phases of organizational management, another way to diversify funding is through taking advantage of the different scopes that traditional grants might have. The continued development of Illuminate Change is still facing the challenge of how best to diversify its funding sources. It is especially difficult to do so when still in the beginning phases of organizational development with less results to point to successes. A hypothetical example of capitalizing on these scopes, in a context of Illuminate Change's background and priorities is as follows. Due to our current affiliation with a leading agricultural research institute (Cornell University)

we might focus on identifying grants designated specifically for research institutes working on climate change agriculture innovations and implementation. After winning such a grant, we could then bring in additional partners to be funded under that grant but that had a broader scope of expertise, such as business development. This concept can be used in reverse, with our team identifying partners that fall under a different lane than our organization and serve as their local implementing partner. This could allow us to gain access to funding that we otherwise would not have been eligible for, such as government contracts, multilateral aid or a Corporate Social Responsibility program.

Diversifying funding also minimizes funding risk. This strategy is especially important for smaller and younger organizations; as one study found, as environmental advocacy organizations in the U.S. grew to $10 million in size, they continued to diversify their funding, however once they reached the $50 million mark, they had more consolidated funding sources such as from government institutions (from different countries to minimize risk) ("How Nonprofits Get Really Big (SSIR)" 2007). By pursuing these different approaches to fund diversification, it will be more feasible to move to a programming-based approach rather than grant-based approach. Needing to be more creative by integrating multiple funding sources under core goals rather than project by project.

STRATEGY 3. IMPROVE EFFECTIVENESS OF CLIMATE COMMUNICATION

As one article describes the dilemma, climate change "is a deadly threat precisely because it fails to trip the brain's alarm, leaving us soundly asleep in a burning bed" ("Local Scale Water-Food Nexus: Use of Borehole-Garden Permaculture to Realise the Full Potential of Rural Water Supplies in Malawi" 2018). This concept is especially pertinent to NGOs seeking funding from donors. Organizations should draw on changing their framing to hit the brain's alarm system straight on the head. We additionally found this dilemma important to address with our community members themselves through our messaging and within trainings.

To address the five D's of psychological barriers creating this climate paradox, organizations should follow the following five strategies in their management and communications to stakeholders, community participants, and donors alike: Social, Supportive, Simple, Story, and Signals.

D's of Psychological Barriers to Climate Change		S's for Effective Climate Communication
Distance	→	Social
Doom	→	Supportive
Dissonance	→	Simple
Denial	→	Signals
iDentity	→	Stories
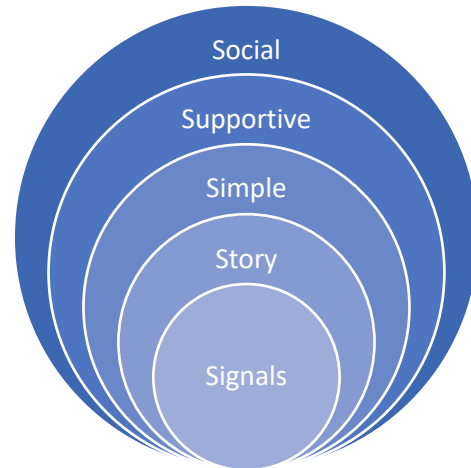
12

Framing - Using words such as 'preparedness' rather than 'adaptation' has been proven to be 85% more effective in persuading voters in the United States (Wong-Parodi, Fischhoff, and Strauss 2015). By changing the way NGOs frame their messaging to work with the pre-conceived notions that people have in a way that changes the message from 'uncertain and expensive' to 'risk and insurance' is psychologically much more likely to garner support and action against climate change initiatives. For instance, as one paper describes, western countries do not pay for military defense because it is cheap, profitable or a war is imminent (Stoknes 2014).

Supportive – Rather than communicating the challenges of climate change it is more effective to express the benefits for adopting changes. For instance, focusing on the amount of new technological jobs or increased health aspects for adoption of clean energy, people will be more likely to be on board. For organizations, this means that focusing messaging on the benefits that relate to donor and community

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12 Author's own creation.

priorities will be more effective than framing a pitch on purely the negative effects climate change will have if no action is taken.

In Uganda one instance of how we adopted this framing is through our vocational training of environmental conservation approaches for income generation. Specifically, while community members were initially skeptical toward why they should not cut down trees for their firewood, after learning about the potential for using waste as a new form of cooking fuel (bio-briquettes) that would not only eliminate the need for timber but could serve as a new business, every community group expressed keen interest and has already begun making these briquettes on a large scale.

Simple – Behaviors will be more likely to change when it is easier to do so in daily activities and habits, often referred to as nudging. This strategy is most helpful to consider when working with local community members or project participants. For example, the farmer groups Illuminate Change has been working with have the daily behavior of cutting down trees contributing to deforestation and increased vulnerability to climate changes, while at the same time planting produce that is more vulnerable to changes in rainfall than other produce they could be planting. In this context, we chose to identify simple changes in action that would not alter their activities too drastically. For instance, our partner NACCRI provided these farmers with new varieties of drought-resistant seeds for crops they are already used to planting, which allowed them to continue their routines of planting, but with enhanced resilience to drought. Additionally, introducing bio-briquettes, they were able to save time going to the forest to cut firewood by making this new energy source with materials they already had in their yards.

Social – Social norms and networks play a large role in influencing people to change. This concept of social contagion or peer effects has been widely documented for decades beginning in France and more recently has been proven to play a role in influencing people to adopt solar PV on their homes (Allcott 2011; Curtius et al. 2018; Nolan et al. 2008; Schultz 1999).

In Uganda, we capitalized on the concept of social networks and norms; by using a scaling model of demonstrations, others can see their neighbors and then be more incentivized to do so themselves. By doing so, community members have already begun replicating projects they have seen from other neighbors for themselves, such as the climate-smart agriculture techniques, in both sub-counties.

Stories – To combat the barrier of a lack of identity with climate change, one of the most effective techniques is to use storytelling (Stoknes 2015). Moreover, organizations should use a variety of stories that touch different people in different ways. As climate psychologist Adam Corner puts it, "it is human stories, not carbon targets, that capture people's attention" (Corner 2013).

This concept was important for us to incorporate not only for our external stakeholders but also for our communication with the community members. One way we did so was by telling the story of a local Ugandan woman who successfully started her own solar drying business, which allowed other training participants to feel like they had the capacity to start their own solar drying businesses, which they have since begun doing. We also

Nkere group leader shows how ready she is to take on the changing climate on Buvuma Island.

highlight stories of specific people and groups to show our stakeholders more compelling evidence of our impact. [13]

Signals – One way to support these stories is through showing signals of positive change. These signals can take the form of indicators demonstrating integrated wealth or ecosystem health. One way we will use signals in our organization communication is by drawing on our continuing monitoring and evaluation as the group impact projects take off and highlight the positive changes the climate resilience work is having on a range of aspects in their lives. For more information regarding effective communication strategies for climate change, look at this handbook written for IPCC authors by Climate Outreach ("Principles for Effective Communication and Public Engagement on Climate Change A Handbook for IPCC Authors" 2018).

STRATEGY 4. FOLLOW USAID'S CLA MODEL TAKING INTO ACCOUNT COMMUNITY CONTEXT

USAID's CLA Framework combines the dimensions of the incorporation of collaboration, learning and adapting, into a program cycle, and of the enabling conditions of an organization that support this integration. The many challenges facing development work and NGO effectiveness mentioned thus far, particularly, donor-implementer relationships and cultural context, can be directly addressed and improved if organizations integrate the CLA methods into their preexisting program cycles. We saw the benefits of following this framework directly through our journey of program management in Buvuma. This is important to note because creating change through using this approach does not require an upheaval of programs and projects already being implemented or designed, but rather can help guide their execution from any stage. For example, in northern Uganda, Mercy Corps adopted the CLA approach to their Revitalizing Agriculture Incomes and New Markets (RAIN) program between 2011-2016 USDA-funded. By doing so they were able to improve their impact by helping 33,000 farmers access new seed and inputs, and in general, see "dramatic change" in an "increased vibrancy and integration of agricultural

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[13] Photo credit: Sarah Wasser

inputs and output markets in the area" ("Principles for Effective Communication and Public Engagement on Climate Change A Handbook for IPCC Authors" 2018).

Another example of the importance of following the CLA framework can be seen in the Illuminate Change program process; while the initial project design included creating fishing nets using recycled plastic, by conducting field research and having direct conversations with hundreds of communities before mentioning this project, we were able to recognize that this project was not the most appropriate, impactful or of interest in the particular community context. This project was then adapted to focus on what the community prioritized and what the community resources provided for, which was environmental conservation techniques that provided vocational training skills. By being open to continuous learning the bio-briquette trainings that replaced the fishing net trainings became one of the most popular projects, with at least two community groups already developing a business with it. We are also continuing to conduct monitoring and evaluation and make changes accordingly. We are also continuing to collaborate both internally and externally, as well as further develop a culture of building relationships and networks. One specific example of this is helping to link our interns who are interested in climate resilient agriculture with our partners at NACCRI to both help inform their internship projects and to support their future careers.

The answers to the specific questions to support this research are as follows:

- *What are the main impacts climate change is having on rural communities in Buvuma District, Uganda?*

   One of the most challenging considerations that has faced this research is to what from the current situation can be applied to climate change as opposed to environmental degradation. The focus group results of all 259 community members explaining how now only the climate was changing but that it was greatly impacting their livelihoods, corroborated the quantitative and external reports of the area, explored in chapter 1. Both of these indicators have shown that the most impactful

change in climate currently facing Buvuma District, and that will continue to worsen, is that of increased dry and wet spells with increased lack of predictability.

That being said it is also true that the increased environmental degradation all over Buvuma Island have also played a part in exasperating these climate change impacts. For instance, the continued deforestation of the rainforest has exposed more land to extreme weather including high winds and rains. This has resulted in even more damage to banana trees (and other agriculture as well as housing) and to the dirt roads and crops, respectively.

- *To what extent do management trainings improve the implementation of livelihood-enhancement projects?*

While there are thousands upon thousands of livelihood-enhancing projects currently being carried out around the world that involve the community to achieve a sense of ownership, we took the approach of making sure the community members and project participants were directly involved in every management decision from inception. Moreover, by pairing each impact project in time with management trainings we were able to provide additional support in having the communities have autonomous control and capability to oversee their own projects. By conducting the management training sessions simultaneously with the impact project training sessions, the participants also had the ability to practice the management techniques experientially on their actual impact projects.
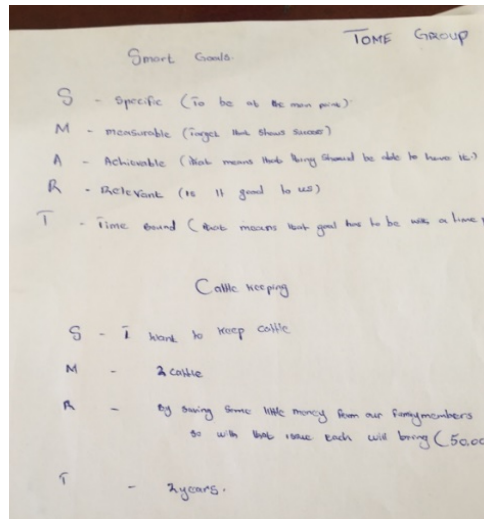
Example of goal-setting for impact projects by Tome Community Group from Buvuma

These trainings also improved the implementation of the impact projects because they allowed for increased monitoring and evaluation of the progress throughout every step by the community themselves.

Management trainings in Buvuma Town Council

The feedback from the participants both during and after these trainings were positive and supported our hope that they would be successful in that manner. One technique I used to evaluate the effectiveness of the trainings was a wrap-up circle where participants shared what they found most useful and other feedback at the end of each session. One instance of feedback from this activity (pictured below) was, one VSLA leader's comment that sums up what many other participants said; he said, 'before I had these trainings I had tried to start business but failed, but after receiving this knowledge, I know I cannot fail again'. Similar comments were echoed from other participants at each training. I also conducted fact and knowledge-gained checks

throughout and after the trainings to determine level of information retained, which was confirmed by each participant successfully answering questions and completing worksheets independently.

Interactive wrap-up from a management training in Buvuma Town Council.

- *How can developing partnerships with similar organizations influence the success of an NGO and the outcomes of its pilot projects?*

We have found that the partnerships we developed have been crucial to the success of our work so far. First, the support and collaboration with NACRRI allowed us to expand our level of expertise and climate-resilient crop varietals we could provide to the community members, while at the same time allowing the Institute to expand their own outreach efforts as they had never worked in the district before. Particularly, the drought-resistant seeds that they provided and taught how to care for was a large priority for the community groups and was only possible for us to provide through the Institute's support. Additionally, our partnership will allow us to connect our interns with leaders in the field.

One of the most successful and promising partnerships was our Internship Program between Cornell and Makerere Universities. Not only were the students able to learn from each other daily,

but there is potential for the professors from both universities to continue collaborations if the internship program continues in future years. Another institutional example is the Cornell Alumni Network that we were able to connect with in Kampala and are working to expand through the use of LinkedIn and other social media.

In full consideration of this project question, it was not the partnerships with similar organizations that contributed most to our outcomes, but rather, our partnerships with stakeholders of different makeups and expertise than our organization. For example, UIRI, the research institute, was able to provide pertinent insight into how to create bio-briquettes and turn the concept into a sustainable business, which we were then able to bring to our community groups and became one of the most successful outcomes of the trainings.

<div align="center">*   *   *   *</div>

There is not only great potential for increased food security in the face of climate change should NGOs increase their collaboration, but it is in fact proven to be imperative that they do so. Our experience in developing and implementing projects through the creation of Illuminate Change has brought to light the many challenges small organizations face, but also the many positive outcomes that can be created when following management best practices.

One example of success outcomes that could be replicated and adapted by many different NGOs is that of Water For People – Malawi's facilitation of borehole-garden permaculture ("Local Scale Water-Food Nexus: Use of Borehole-Garden Permaculture to Realise the Full Potential of Rural Water Supplies in Malawi" 2018). This project combines the knowledge and support from stakeholders from multiple sectors including Environmental Health Officers, Community Development Officers, village chiefs, entrepreneurs (who emphasized the use of eco-fertilizers, various Malawian government ministries, and extension workers. By acting as bonding agents, bringing together experts from many connected sectors of climate change, projects have more successful long-term impacts.

Climate change is an amorphous issue that presents rapid shifts in realities on the ground, and so NGOs' role of working directly with communities will become increasingly important to be able to change their strategies quickly. Working with local knowledge, NGOs have a greater depth of understanding what solutions to food security adaptation will work, and so by learning from each other and the local community, rather than needing to carry out their solutions based on what donors think is best, will ultimately create more impactful solutions. In other words, "synergizing across stakeholders" is not just one option for NGOs fighting food security in the face of climate change, it is in fact, the essential change in development if we are to feed the world fifty years from now ("Building Multi-Stakeholder Processes for Climate Change Adaptation in Sub-Saharan Africa" 2013).

No one strategy is alone going to ensure climate resilience is enhanced. NGOs must take a multipronged approach that combines strategies for the most impact. My creation of Illuminate Change has been a year-long journey that has demonstrated the challenges and best practices in program management for climate resilience. Yet this is just the beginning of a larger goal. We know our network of stakeholders and passionate inspiring local leaders will only continue to grow and join the growing movement of climate resilience. By diversifying their funding, supporting knowledge sharing, pooling resources and targeting communication approaches to address the underlying causes of climate vulnerability, NGOs will be able to carry out projects that are more efficient, more effective, and more sustainable.

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PROJECT TIMELINE

Identify location and prepare timelines
- Develop budget
  - Apply for funding
- Hold weekly staff meetings

Create M&E & Research questionnaires
- Gain IRB approval

Connect with key community contacts and stakeholders
- Interview all contacts, government officials, and NGO leaders
- Continue revising literature review

Conduct first research visit
- Meet with national and local stakeholders
- Meet with community leaders and government
- Hold focus groups
- Hold kick-off event with training and next steps

Make changes to design and implementation plan accordingly
- Identify priority needs and interests and adjust projects to fit
- Write field report for partners

Idenfity community groups to be demonstration sites
- Hold monthly meetings with partners to discuss any changing priorities and logistics

Bring on additional staff members and engage with stakeholders to begin implementations
- Apply for additional funding
- Sign MOU with NACCRI

Develop and launch internship program

Develop training manuals and implement trainings
- Conduct continued M&E
- Collaborate with local leaders to further develop projects

Launch NGO
- Register in both bountries
- Ensure mission and vision align with community priorities

Coordinate pre-arrival logistics with local partners
- Mobilize groups to be in attendance at trainings
- Finalize accomodation, food, buying of materials, transporation etc.

Meet with all local leaders
- Local government
- DISO, RDC, Agriculture officer, etc.
- Send official letter to national government

Implement trainings
- Hold daily reflections with interns and staff meetings
- Conduct continuous M&E
- Support interns in developing their personal projects

Meet with stakeholders
- Invite to and plan closing networking event
- Meet with selected local leaders who will be responsible for further M&E and connect with us starting in August

Hold final reflections and feedback with interns and community groups
- Write Grant Reports using M&E from the field

Appendix 2

Ugandan Stakeholder Profiles

Organization	Location	Name	Title/Affiliation
Peace Corps	Kampala	Richard Bagada Irene Kangume Irene Atuhairwe	USAID Feed The Future / Peace Corps & Global Health Seed Partnership
TechnoServe	Kampala	Meralyn Mungereza	Country Director
Makerere University *College of Agricultural & Environmental Sciences* (CAES)	Kampala	Dr. David Mfitumukiza Gordon Yofesi	ERICCA Climate Adaptation Specialist & Student Group Liaison
Daily Monitor (Uganda News)	Kampala	Elizabeth Akaniza	Brand Manager
Uganda Industrial Research Institute (UIRI)	Namanve, Kampala	Denis Okoria	Marketing Manager
National Agricultural Research Organization (NARO) & NACCRI	Gayaza	Dr. Godfrey Asea Winnie Nanteza Victoria Mbigidde	Director of Research Staff Staff
BioGas Solutions Uganda Limited	Kampala	Michel Muvule	Executive Director
Reach The Children	Buvuma District	Ali Saava	Project Manager
Action for Development in Underserved Areas (ADUA)	Buvuma District	Richardson Kyambadde	Executive Director
Cornell Alumni Network	Entebbe	Dr. Daniel Lumonya	PhD from Cornell, Coordinator

Appendix 3

Community Group Profiles[14]

#	GROUP NAME AND LOCATION		ENTERPRISES	MAJOR CHALLENGES	PRIORITIES/ INTERESTS
	Busamuzi sub-county				
1	**Nezikokolima Nkoka Farmers and Savings Group** *Nkoka, Busamuzi Sub-County*		§ Farming (Maize, beans, rice, cassava, sweet potatoes, bananas, etc) § Poultry keeping § Savings and Credit	§ Market access § Transport constraints § Access to improved crop varieties and animal breeds § Lack technical knowledge § Access to technology like water pumps for irrigation	§ Pond Fish farming alongside rice farming § Biogas § Vocational skills development § Bee keeping § Piggery

[14] Developed jointly with Cyprian Kaziba

2	**Nkere Tusituke Tutambule Farmers Group** *Nkere, Busamuzi Sub-County*		§ Goat rearing § Piggery § Farming § Afforestation and re-afforestation	§ Agricultural seasonal changes and prolonged dry spells § Access to schools § Poor animal breeds § Lack of irrigation systems § No access to improved seeds	§ Trainings in animal care § Trainings on good agricultural practices § Business management trainings
3	**Nkere Youth Group** *Kirongo/Bukaayo, Busamuzi S/C*		§ Pond fish farming § Farming (Maize, cassava, beans, sweet potatoes, bananas) § Afforestation and re-afforestation	§ No credit for expansion § Lack of technical knowledge in fish farming § Limited support on fish value addition § Climate change	§ Pond expansion § Fish packaging § Food security

| 4 | Mawanga Fishing Village Mawanga, Busamuzi Sub-County | | § Fishing (Silverfish, Tilapia, Nile perch) § Petty trade (shops) | § No boat engines § No legal fishing nets § No fishing handling facility or drying racks § Transport constraints § Fish preservation challenges § Theft on water § High government taxes § Credit for cage fish farming § No toilets § Waterborne diseases | § Fishing ponds § Cattle rearing and Poultry § Biogas |

5	Butende Twezimbe Women Group *Butende, Busamuzi Sub-County*		§ Dairy cattle § Farming (Maize, banana, cabbages, tomatoes)	§ Animal pests and diseases § Insufficient funds for animal treatment § Inadequate technical knowledge on animal care § Market access for agricultural produce § Seasonal changes and long dry spells § Access to technology like water pumps	§ Biogas § Agricultural training § Financial/business training § Vocational training
6	Bugabo Farmers Group *Bugabo, Busamuzi Sub-County*		§ Farming (Maize, Sukuma, cabbages, tomatoes) § Fishing (silverfish) § Petty trade	§ No irrigation § Climate change § Limited loan fund (capital)	§ Silver fish project § Piggery § Tailoring trainings

7	Buvuma Traders SACCO *Kikongo, Buwooya Sub-County*		§ Savings and Credit § Cage fish farming § Commodity trading (maize) § Farming (maize, rice) § Skills development (Tailoring)	§ Limited loan fund (capital) § Transport constraints § No storage facilities	§ Vocational skills training like weaving, carpentry, tailoring § Financial management trainings § Agricultural trainings and food storage
		Buvuma Town Council			
8	Kabubbu Saving group *Kabubbu, Buvuma Town Council*		§ Farming (maize, rice, cassava, beans, sweet potatoes, millet etc) § Saving and Credit	§ Seasonal changes and prolonged dry spells § Market access § Access to education/schools § Access to health facilities	§ Trainings on Poultry

9	**Mirembe Women Group** *Kitamiiro, Buvuma Town Council*		§ **Farming (banana, maize, ground nuts, cassava, sweet potatoes, millet, beans)** § **Piggery**	§ **Seasonal changes and prolonged dry spells leading to low yields** § **Market access** § **Pests and diseases** § **Inadequate funds and technical knowledge on animal care** § **Storage (for agricultural produce)**	§ **Vegetable growing including mushrooms** § **Poultry keeping** § **Biogas**
10	**Tome Youth Group** *Tome, Buvuma Town Council*		§ **Cage fish farming** § **Farming (Banana, maize, ground nuts, beans, cassava)** § **Livestock (Cattle, goats, chicken)**	§ **Poor quality fish feeds** § **Technical knowledge** § **Heavy winds on the lake** § **Seasonal changes and prolonged dry spells**	§ **Improved cage fish farming** § **Vegetable growing** § **Poultry keeping**

11	Tome Gain Development Association *Tome, Buvuma Town Council*		§ Farming (Banana, maize, ground nuts, beans) § Livestock (Cattle, goats, chicken)	§ Market access § Seasonal changes – prolonged dry spells	§ Fish farming projects § Agricultural trainings, bananas and oranges § Vocational skills § Basic financial skills
12	Tome Fishing Village *Tome, Buvuma Town Council*		§ Fishing § Farming (maize, cabbage, tomatoes, § Livestock (Cattle, goats, pigs, chicken)	§ Lack of toilets § Credit for fishing equipment § Low lake productivity § Credit for fish farming § Heavy winds on the lake § Access to schools and health centers	§ Biogas § Good agricultural practices § Vocational skills

| 13 | Bakuseka Majja Saving Group

Buliba, Buvuma Town Council | | § Farming (Banana, maize, beans)

§ Community primary school

§ Trade

§ Savings and Credit | §Climate change

§Access to land

§No fish

§Poor loan repayment by members

§Failure by parents to pay school fees for children

§Cost of agricultural inputs | § Financial management (personal)

§ Increasing productivity of small agricultural land plots

§ Vocational training center

§ Improving education |

Appendix 4

Additional Photos From Program Implementation in Buvuma

95

Community Leaders

Introduction:

Community Leaders

Cyprian:

- Ask permission to record and get that confirmation recorded so there is proof
- Story
- Introduce Research Team (i.e. M&L have both worked and lived in Uganda, dedicated years to working with community members on similar projects
- Intro why we are here - to learn and see how we can work together
- Thank you for agreeing to meet with us, this should take 1-1.5 hours, to respect your time.
- For VSLA: We are students and here to learn from you more about Buvuma, improving livelihoods, and how VSLAs play a part in improving their livelihoods and those in the community. We are interested in learning how projects can be implemented to improve livelihoods in Buvuma, and how we might work together to do so.

Cornell IRB's Recommended Informed Consent Language For Data Sharing

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"De-identified data from this study may be shared with the research community at large to advance science and health. We will remove or code any personal information that could identify you before files are shared with other researchers to ensure that, by current scientific standards and known methods, no one will be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data."

Community Mapping

Laura: We would like to start off by doing some activities in groups. First, have men make a circle over here and women over here. We would like you to use this paper and markers to draw a map of your community…

- Start with the main feature of the community - (example, draw the main road, school, well)
- Everyone can draw at the same time- work together
- Define scope - focus on your sub-county

Mapping Qs:

1.   Draw the most important natural resources in the community
2.   Draw where can people meet, where the majority of people could have access? - If necessary, work together to rank which are most important
3.   Where do we see men more frequently?
4.   Where do we see women more frequently?
5.   Where do we see girls more frequently?
6.   Where do we see boys more frequently?
7.   What do you feel proud about in your community? What are the strengths of the community?

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[15] Some of these questions and activities have been adapted from the team's previous work including Peace Corps materials. The translations were done by Cyprian Kaziba.

8.   What are the different community groups (specific to the focus group members ie. farming)?
9.   Where do community groups meet?
10.   Where does your water come from?
11.   Where is there the most trash? Why do you think?
12.   Where is the soil best for farming?
13.   Where are the most important resources?
14.   Where do you sell your produce?

Brief 2 minute sharing between groups - choose a group member to present what they drew
- What did you think about this activity? What did you learn? What was surprising?
- This was very informative for us to learn more about your community. Thank you.
- Now we will come back together as a group to learn even more.

Farmers

I. Livelihoods:
   1. What are your main sources of livelihood?
       Bintu ki ebisinga okubayimirizaawo oba byemuggyamu eky'okulya?
   2. What crops do you grow? (then ask which are grown most - ranking)
       Birime ki byemurima? (Biki byemusinga okulima?)
   3. What types of animals do you keep? (put number of animals)
       Bisolo ki byemulunda? (Olina bimeka?)
   4. Which crop is most important to you? Why? (example: $, food security)
       Birime ki ebisinga omugaso gyemuli era lwaki?
   5. What is the role of women in providing livelihoods?
       Abakyala balina buvunaanyizibwa ki mu kuyimirizaayo amaka?
   6. What is the role of men in providing livelihoods?
       Abaami balina buvunaanyizibwa ki mu kuyimirizaayo amaka?

ii. What are the key challenges and opportunities for agricultural production in Buvuma?
   1. In this sub-county, how big is considered a small farm and how big is a big farm? (ha, acres) (are there more small farms or more big farms? (Why)
       Mu Ggombolola eno, omulimi gwetuyita omutono ayinza kuba na ttaka nga lyenkana wa?
       Wano musinga kuba nabalimi batono? Oba banene?
   2. Do most farmers have their farmland located in one area or scattered in different areas?
       Wano abalimi abasinga ennimiro zaabwe ziri wamu oba ziri mu bitundu byanjawulo?
   3. How do you acquire inputs for your agricultural activities?
       Ebikozesebwa mu kulima mubifuna mutya?
   4. How do you store or preserve your produce for future use?
       Mutereka mutya oba mukuuma mutya emmere mukwetegekera ebiseera ebyomumaaso?
   5. How do you market or sell your excess agricultural produce? (that you do not eat)
       Ebirime byammwe mubitunda mutya oba mubifunira mutya obutale?
   6. How do you finance your agricultural activities?
       Ssente ezibayamba mu mirimu gyammwe egy'obulimi muzifuna mutya?
   7. What other challenges do you face as a smallholder farmer (or in general)?
       Bizibu ki ebirala byemusanga mmwe ng'abalimi abatono?
   8. In your opinion, who is responsible for addressing these challenges?
       Mulowooza ani alina obuvunaanyizibwa okugonjoola ebizibu ebyo?

iii. What is the impact of climate change in Buvuma and what is the capacity of smallholder farmers to mitigate and adopt to climate change.

1. How do you receive information on weather or climate change? What appropriate channels would best work for you?
2. What was the weather like 5 years ago compared to what it is now (more or less rain, hotter or colder?
3. What changes in Lake Victoria have you seen?
4. What changes in the soil have there been in the last 5 years? (how many people agree - what is the consensus - take and record number?)
5. What do you think are the reasons for some of these climatic changes?
6. How have these climatic changes affected your agricultural and fishing activities?
7. Have these climatic changes affected you in any other way?
8. What do you do to survive amidst the effects of climate change?
9. What climate smart agricultural practices are you aware of?
10. What climate smart agricultural practices do you practice?
11. Have you received any training or support from government or any organization? Which one? (ie. on climate smart agriculture) (Get #s for each type - gov, NGO, neighbor)
12. What organizations or projects have you done before? How successful were they? Why so?
13. What would you need to start practicing more climate smart agricultural practices?
14. Have you ever received funding for any project?

Fishermen (Quantitative/Qual) Questionnaire

- What fishing activities are you involved in?
- How many people own a fishing boat? (How many? hired or owned?) (Do you share boats?)
- What type of fish do you fish or deal with?
- What do you consider to be the biggest things preventing you from having more income?
- How long have you been fishing here?
- Who taught you how to fish?
- Do you own, or rent your boat?
- How much fish do you catch in one day (in kilos)?
- Have you seen this number shorten/change over time?
- Where do you buy your nets?
- If you were to buy your nets here in Buvuma, how much would you spend on a strong net?
- Have you, or another fishermen had your nets removed by the government before?
- Do you use mosquito nets when you are fishing?
- How often do you catch plastic waste in your nets?
- Is plastic waste an issue for you?
- How do you prepare the fish you catch?
- Are you familiar with how to preserve fish for many weeks?

VSLAs

- What are challenges you have faced as a group?
- How many people save more than once?
- What do most people save for? (School fees, etc.)
- How many people are in your group?
- How long have you been a group? How many years?

- What has been the most you have saved as a group? What was your highest goal as a group?
- What would help your group become more successful or move forward?
- Have any members received trainings?
- Have members defaulted?
- How have you handled people who default?
- How often do you meet as a group?
- Do you have a written agreement or constitution for rules for the group?
- Has your group worked together on one project before? What is the group dynamic?
- Do you meet or work together outside of this group?
- What do you think will make your group more successful?

Matrix Choosing Activity:

This activity was carried out with some of the groups and then revisited during the Kick-off priority setting time for each group. Example matrix:

	Education	Build clinic	Local health workers	Access for women	Build latrines
Education					
Build clinic	Education				
Local health worker	Education	Local health worker			
Access for women	Education	Access for women	Access for women		
Visiting nurse	Education	Visiting nurse	Visiting nurse	Access for women	

Appendix 6:

Example Management Training Lesson Plan

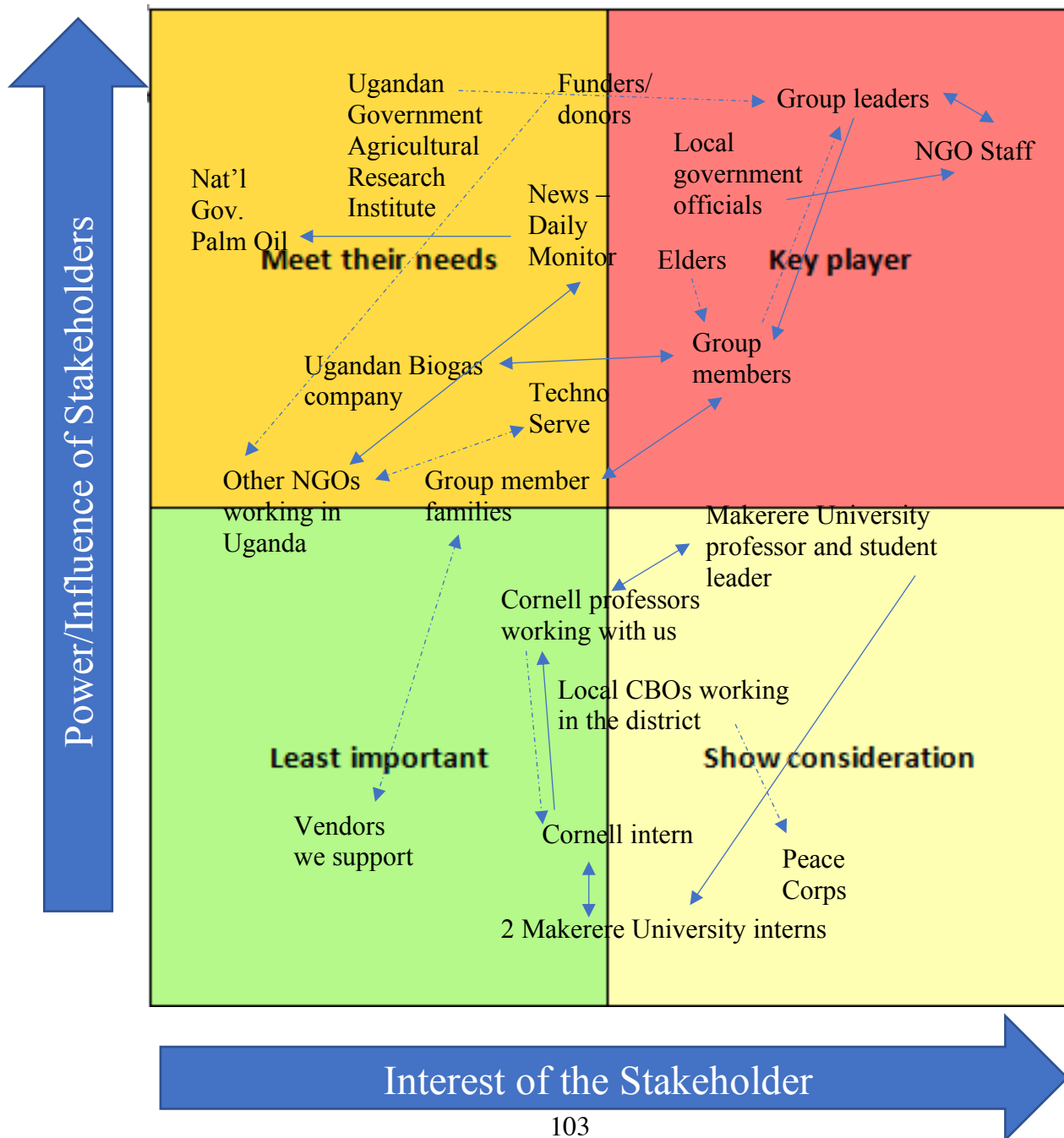| Phase /Time /Materials	Instructional Sequence

Introductions	Opening Prayer
	
	Emphasize that these trainings are to give them skills, confidence and knowledge to sustainably manage these impact projects themselves.
	
	Agenda
	  1. Goal-Setting
	  2. Financing your project

#1 Motivation 30 mins	*Show picture on flip chart of man reaching a crossroads.* Explain that this man is not sure of which road to take. Ask participants which way the man should go and take some answers. Say how it is impossible to know which path to take if you do not know your final destination. Each one of us has hopes, dreams and goals. But in order to reach them we must identify them and that will help us figure out the path to take us there. In order to be happy in the future, you need to be clear about what you want, but also clear about what your life is like right now. Today we are going to be talking about the importance of having goals to guide our path to the future and you will have a chance to think about some of your own goals.
#1 Information 10 mins	List you and your group's goals - following the flipchart SMART goals introduction - and relate to number of fingers - importance of each SWOT - Introduction *Using the two flipcharts, examples and stories from similar contexts and cultures, and the worksheets*
#1 Practice 20 mins	In community/VSLA groups, choose one project and develop a new goal for the project using SMART and then fill out the SWOT worksheet for that project.
#1 Application X mins	Groups will be able to share the new goals for their group project and what their SWOTs are.
Assessment X mins	Teams were able to successfully plan the implementation of a bio-briquette project to be sustainable for a community group.

Second Section	*Break for food and sodas*
30 mins	#2 Financing
#2 Motivation	Saving in a bank or with a savings group is one way of planning for the unexpected. Your community group can be doing a great job saving money and sticking to your budget, but how do you cope if the unexpected? What can you do if a friend or relative needs to borrow money? What if your house is burgled?
	One of the most popular activities that all community groups said was their priority from us, when we visited in December, was to learn some basic financial literacy. Today we are going to do that.
	We also want to announce today that though we are students, we have been working hard to find grant funding for you, and now we are able to provide a small loan to three of your community projects in this sub-county. *Show flipchart and hand out sheet of requirements.* You will be eligible to submit a proposal to us to receive the loan. We will work with you at a later session to make sure you have everything you need. All of the tools and worksheets we introduce today will be a part of this application.
#2 Information X mins	Hand out and flipchart of Savings Plan - explain and do.
	Flipchart of ledger and record keeping - handout and do
	Cashflow - loan and VSLA in groups - flipchart
	Tell us some of the projects that your community group has done and how through your VSLA you have been able to put money back into the project? (i.e. piggery - selling pig for food for other pigs)
	Since we are now creating new projects with your groups, we want to ensure that these projects can be sustainable and last to help you for years to come. We want to be able to bring money back in to have a fund to buy more things for the project (i.e. More seeds or for emergency, or to expand so more community groups can implement the projects in their own homes such as a Biogas).
	Today we will be giving you easy-to-use financial planning tools.
#2 Practice X mins	1. Within groups, review each of the high level steps to community group financial health that were covered in this training session. (5 minutes) 2. Within groups, each person lists the two most important actions they will take to improve their community group's financial health. (10 minutes)
	Instructions: The instructors will first provide the following scenario:
	Now that you have seen some of these techniques for keeping track of your budget, we are going to practice using it. Imagine your community group is interested in buying a bricket machine to make money for your group, for a vocational skill your youth can learn, and to save the forests. Each bricket machine costs $500 USD. Using this sheet template, work in partners to figure out how much each person should contribute weekly, how long it will take you to purchase the machine, and how you can sell the brickets to make money to sustain your group.

	A budget is a tool your community group can use to decide what to do with your money. It helps you see how much money you have coming in and going out and in this way helps you pay for what you need and save up for the things you want.
	Sticking to your budget is one way to protect your money. Saving up to invest in your business will help your money grow, while saving up for the things you want will help you avoid going into debt. Creating a budget is to improve your community group's financial situation, give you breathing space in emergencies and help you reach your financial goals.
	Life doesn't always go to plan though, so you must consider strategies to protect your money. First you will look at ways to bring your fellow community group members on board so you can work together to make your budget work. One coping strategy is saving your money in a safe place such as a bank. Another coping strategy is insurance, a tool that can help your community group survive damaging events you can't always plan for.
	If your community group is going to be successful in meeting your savings goals and sticking to your budget, everyone will have to work together.
#2 Application X mins	Each community group will fill out the strategies to protect your money and the steps to making the most of financial services templates below to record their savings and monetary goals towards their community projects. Work with your community group to apply a budget to your specific project. Come up with questions that you still have to make sure you are able to use these worksheets independently.
Assessment X mins	Instructors: Do you have any additional questions you would like us to address or skills you are interested in learning more about? Participants fill out smily-face ranking chart to give feedback on what they learned, if they still have concerns, and which aspect was most useful to them. Close training with circle, and everyone putting their 'SMART' hands into the circle to cheer.

Appendix 7:

Stakeholder Mapping and Engagement Plan.

Below is a mapping matrix of where each of the previously listed stakeholders lie. This tool was made in May 2019 prior to summer departure to Uganda, and allows me to determine and analyze the level of engagement we should have with each one. The solid arrows represent the directionality of power or influence, and the dotted lines represent a weaker relationship between the two stakeholders. It is important to note that the arrows are not a comprehensive representation of every potential relationship or power dynamic, however, it demonstrates the important relationships for the Plan's objective.

Laura Simmons-Stern										
Overarching Thesis Objective:	To create the sustainable management of impact projects through multi-stakeholder collaboration.									
Stakeholder Engagement Objective:	To determine how to have all stakeholders in agreement that increased collaboration will increase project impacts through ensuring their priorities are being met.									
Table Key										
-- Key Player										
-- Meet Needs										
-- Show Consideration										
-- Least Important										

Stakeholder Engagement Plan

Stakeholder Group	Attitude	Profile	Person To Meet	Link to Social Risk	Motivations	Engagement Objective Strategies	Level of Engagement	Engagement Venue	Frequency	Relationship Owner
Community Level										
Local government officials	(+)	Influencer	Head of Busamuzi and Town Council	Nothing happens on the island without approval and support from the local government. It is crucial that they feel involved through transparent engagement from the beginning and throughout the entire process. They also have the ability to help in the success of the projects as they are respected in the community and have some resources.	As the leaders of the sub-counties, these government officials want to be part of and have projects that will increase the local economy and has the best interest of the community in mind. They also do not usually stay on the island over the weekends and so do not want to have the responsibility of having to oversee anything during those times. As they also rely on elections the more they can point to as being a part of they more likely the community members would be to want to re-elect them.	A couple of engagement strategies for these local officials include involving them from the very beginning so that any project work comes from them, and that they can gain a new official title from engaging with it. Also demonstrating concretely how the projects will enhance economic growth. One way to do so is to start with a small project that is more focused on and has shorter turn-arounds for ROI that are tangible.	High - Key Player	Government Offices and at community sites during project meetings	Upon first entry, monthly, and before leaving country	Cyprian
Group leaders	(+)	Decision Making	Six leaders so far from both sub-counties	These leaders have the respect of the community and the power to put a stop to, or champion the projects based on their interests, opinion of the work/NGO, and competency for leading the projects.	The group leaders are community members who have shown a deep desire to help their communities and that they have gained the trust and respect of their group members. They want to make sure the projects they pursue are for the benefit of all group members.	We hold open and consistent communication through always asking their opinions during and after each interaction to avoid conflict and gain trust to also avoid confrontation. From the beginning we have made a point to hold informal meetings in addition to the formal focus groups, consultations, and trainings. We have also always framed the work as needs-driven rather than budget-driven; for instance, one of our first group meetings consisted of doing asset mapping to demonstrate the other resources we all can draw on.	High - Key Player	The households each group meets at	Upon first entry, weekly and at trainings, and before leaving country	All
Group members	(+)	Decision Making	Multiple	The members are the heart and sole of the success of the projects and ultimately the NGO. If they are not engaged strategically they might not feel buy-in and therefore not have an interest in working on the projects.	The group members for the most part are already in established microfinance groups and so are already looking to develop and carry out impact projects. They want projects that will provide them income, support their youth, and will not cost too much. Currently the group members say they are lacking expertise to successfully carry out the projects they have tried in the past including agriculture plots.	The most important aspect we need to focus on is building trust. We have been consulting them as the experts since before we ever arrived in country and had them be the leaders of developing their own priorities and project ideas. In order to most effectively continue building this trust, we have been in communication with them even when we have been at Cornell, through our contacts on the ground, and will continue to meet them and show up every time we say we will. We are making sure that they are consulted at every step, and that when we said we would bring in trainers that we followed through.	High - Key Player	The households each group meets at	Upon arrival, daily or weekly depending on training schedule, before leaving, and monthly after	Cyprian
Group member families	(+/-)	Influencer	All	The family members are essentially extensions of the community groups. Especially for the women groups, if the spouse does not approve of the time or outcome of the project work they have power to shut down the member's participation.	The family members want to see an immediate increase in household revenue through these projects.	Behavior change takes the longest, and since the majority of these families are subsistence farmers and fishermen, it is crucial that the very first project we begin with, can quickly and clearly bring each family an income. For instance, instead of only starting with a Biogas system which will take months and large investment to see any benefits, it is important to pair that with a smaller demonstration that already has a proven market for them to sell at.	Medium - Meet Needs	At their individual households, at training sites, and at the guest house	Upon arrival, 3-4 times a week corresponding with trainings and M&E, at final event	Sarah, Cyprian

Stakeholder Group	Attitude	Profile	Person To Meet	Link to Social Risk	Motivations	Engagement Objective Strategies	Level of Engagement	Engagement Venue	Frequency	Relationship Owner
Vendors we support	(+/-)	Interest Group	Woman who owns only restaurant and prepares us food, chapati food stand owner, guest house owner and staff, boda-boda and taxi drivers	The vendors are a bit higher up in the map than they might have been, because they number of locations we can go to for food and accomodation are very limited on the island and so it is important we maintain good relationships with them.	These vendors are money driven. They are looking for customers to support their businesses and families.	Have clear and open communication with them to demonstrate we will be reliant upon them for the time we are in country.	Low - Least Important	At their establishments	Upon arrival, daily and before leaving	Cyprian, Sarah
Local CBOs working in the district	(+/-)	Interest Group	Reach the Children, etc.	These CBOs have had prior experience working in Buvuma and with the community members and can therefore provide much-needed information, contacts, and support for us if they so desired. They also have the potential to serve as extensions of the projects we are starting and to support in M&E when we are not in country.	These community-based organizations are mission driven and dedicated to helping improve the livelihoods of the people of Buvuma. However, like us, they have limited funding and resources to make the impact they hope to.	As these CBOs are also small-scale and currently without many national or international connections, there are two main ways we can engage with them. The first is to have them attend a training by one of our partners, such as NACCRI, to see the value and expertise we are bringing to the island, and then start with working on one small demonstration project together as a small way to demonstrate how two organizations working together can be more effective than one. Second, to invite them to our final stakeholder networking event to allow them the opportunity to develop their own network, and further see the value of collaborating.	Medium - Show Consideration	At their local offices, in Buvuma, at the guest house, and via skype when not in country	Upon first entry, at trainings, monthly, and before leaving	Cyprian
Elders	(+/-)	Influencer	In both sub-counties	Elders are the most respected community members on the island and their opinion will inform whether the rest of the community will support the collaboration of other stakeholders.	The elders have said they want to secure good incomes and lives for the youth in the community.	By demonstrating that these projects and allowing outside stakeholders to work with them will increase the incomes and livelihoods of the youth in the community, we can address their priorities. Additionally, as is true for all of the community group members and leaders, we must be sure to show respect for their culture, including making the effort to learn the local language on top of using translators, and not being rushed (never turning down food) even when we have many other meetings to go to.	High - Key Player	At their homes or trainings they attend	Upon first entry, at trainings, monthly, and before leaving	Cyprian
National Level										
Makerere University professor and student leader	(+)	Decision Making	Gordon and Dr. David	MU is an important stakeholder for the sustainability of the organization. Particularly for this summer and the coming couple of years, the NGO has very limited funds and having connections and support of both interns and professors from multiple departments allows us to bring in more local knowledge and expertise to the projects. There is also potential for this partnership to grow and for the University to connect with Cornell and have an increased role in operations moving forward.	In particular, Dr. David is hoping to create a more interactive and hands-on internship program for his students which will provide them with more meaningful experience and allow them the opportunity to get a good job after graduation.	One tool is to make either or both of our closest contacts at MU part of the advisory committee with their own titles, and possibly in the future, part of the Board of Directors. Additionally, by starting small with two interns, we hope to demonstrate the value to the university of participating in the growth of the internship program, and build confidence for working together in more capacity moving forward.	High - Key Player	Skype and at University in Kampala	Monthly	Sarah
2 Makerere University interns	(+)	Influencer	Alan and Mwembe	If they do not perform well while also enjoying the experience, we will not be likely to continue the internship program and lose sustainable 'staff' support to make future projects possible.	Both interns must complete an internship to graduate however they want to gain more hands-on experience in agriculture and development, than a traditional internship would normally offer. In getting that experience they hope to be more qualified and ready to enter the job market when they graduate.	Begin engagement well before the program begins, and work one-on-one to help them develop a hands-on project that directly aligns with their biggest interests. Ensure they are able to have leadership experiences in working with the community members and that they feel supported at every step, especially since they have not had such a work experience like this before.	Medium - Show Consideration	Skype, Makerere University and at guest house conference room in Buvuma	Bi-monthly prior to program, daily during program, and monthly following project.	Sarah, Laura

Stakeholder Group	Attitude	Profile	Person To Meet	Link to Social Risk	Motivations	Engagement Objective Strategies	Level of Engagement	Engagement Venue	Frequency	Relationship Owner
Ugandan Biogas company	(+/-)	Influencer	Florence Kintu	Biogas was one of the projects the community groups chose as their priority, and as our team are not experts in biogas, it is essential the company is able to and continuously interested in training and supporting the groups in setting up the systems.	As a Ugandan owned and operated for-profit company they are both motivated to help their fellow Ugandans obtain the biogas technology, and also to make a profit. While they do have a loan system, at the end of the day, working with the community groups must support their company. As much of their competition is from other countries, they want to demonstrate that a Ugandan company can be just as if not more successful.	First, demonstrate the need and interests of the community groups to the company. Then show proof of ability to pay through micro credits and loans, and have them meet one-on-one with the community members in Buvuma itself to see the impact the biogas systems could have. Since the top priority ranking of many of the community groups were in fact to have a Biogas system, this fits perfectly with the company's priorities. The company has never worked in this district before and so by providing them with the contacts and community information, they will be able to expand their own network and potential for future clients.	Medium - Meet Needs	At their office in Kampala, and at trainings in Buvuma	Monthly and additionally when trainings are happening	Michal
Ugandan Government Agricultural Research Institute	(+)	Decision Making	Winnie, Vicky and the Director	NACCRI is one of our most important stakeholders as they hold the most expertise in climate resilient agriculture practices which is the backbone of our climate resilience projects. They have been able to conduct outreach and begin project work on the ground while we have been out of country, which has been crucial considering our tight timeline. As such, they also have the power to stall our work to improve climate resilience if they decide they no longer have the resources, personnel or aligned interests.	As a government institution their funding and frameworks are determined from higher up the chain and so are not always in the control of our closest contacts there. Their motivation is to bring their seeds and technology to this new district they have not worked in before.	Be sure to engage with them from before the project ideas are in place so that the concepts are drawn from their motivations and work within their framework. They can also be invited to be a part of the task force committee and possibly the Board of Directors. Specifically, as we have already done, demonstrate that working with us allows them access to increased funding sources to help them carry out their work in this new area, directly from us, and also from the new connections and partnerships they can make through our network. These additional connections might prove beneficial to them in their future work.	Medium - Meet Needs	At their institute in Uganda mainland, via skype and email while not in country, and at trainings and events in Buvuma.	Weekly updates	Cyprian
Other NGOs working in Uganda ie. UIRI (Ugandan Industrial Research Institute)	(+/-)	Interest Group	Denis at UIRI	As we continue to increase collaborations, the expertise of other NGOs around the country could be critical to moving our projects and our scope further. For UIRI specifically, they have access to new technologies that could be useful in new impact projects, as well as providing tools for increase value addition to project products.	UIRI is a national research institute that supports Ugandans in their business pursuits as well as develops numerous technologies and innovations (including weaving, woodworking, paper making, and in agriculture production). This institute and other NGOs in the area are well established and dedicated to supporting local Ugandans, and so they would be most motivated by how our NGO could contribute to their outreach and scope. For NGOs around the country, they are mission driving and want to make an impact on the livelihoods of fellow Ugandans, however they are also constantly in search and need of funding.	We should frame the proposal of collaboration with us as also a link to other organizations and companies, which in turn not only increases their knowledge capacity and therefore scope and success of impact projects, but also, provides them with the possibility for increased access to funding. Many large grants require or look favorably upon programs that have partners and that are able to provide a scope that would make more of a difference and make the donors look like they are contributing to larger scale of change. By sitting at the table with these organizations as early in our process as possible, they more they will feel involved and dedicated to this work.	Medium - Meet Needs	In their HQ offices in Kampala, and hopefully in Buvuma in the future. Via skype when not in country	Monthly before arriving in country, once when first get to Kampala, monthly after.	Laura, Michal
U.S. Peace Corps	(+)	Interest Group	TBD	Peace Corps Volunteers live and work in their selected site for two years. If we were able to open Buvuma up as a new site, this would provide us with a stable presence on the ground to continue advancing and monitoring the projects as a partner for the NGO. This would greatly enhance the sustainability and possibly the growth of our work and impact.	Peace Corps Uganda has lost some sites to place Volunteers in recent years and so would be interested in having connections with a new community they have not worked in before. Before they can place a new Volunteer, they must have a well-established organization and counterpart to partner with, knowledge of the safety and situation in the area, and homestay options. The area must be of-need and have project opportunities.	We need to show how Buvuma fits into Peace Corps' site requirements and and more than that, that by partnering with us they will also be supporting an RPCV Uganda (Michal). To do so specifically, we are in communication with them about our progress from the beginning. One additional way to do so is to invite them to be a guest of honor at our final stakeholder networking event with all of the community groups at the end of the summer. This would also allow them to see all of the other organizations and government partners they could be able to work more closely with in the future.	Medium - Show Consideration	PC Uganda Headquarters and Buvuma guest house	At beginning of project, upon first entry to Kampala, and monthly thereafter.	Michal

Stakeholder Group	Attitude	Profile	Person To Meet	Link to Social Risk	Motivations	Engagement Objective Strategies	Level of Engagement	Engagement Venue	Frequency	Relationship Owner
National Government - Palm Oil	(-)	Spoiler	Director of the Bidico Palm Oil Project	The Palm Oil project is continuing to displace people, limit the size of household agriculture plots, and degrade the environment. As the impact projects are trying to improve livelihoods and climate resilience, and no stakeholders are currently working with them, their continued implementation with keep hindering this work.	To raise large amount of revenue for the country and themselves by creating a successful palm oil development on the island. However palm oil projects have received notoriously bad press around the world due to their environmental degradation and displacement of local peoples. In order to not face public ridicule, especially in the age of social media where news spreads like wildfire, it will be important for them to show they are doing something or anything to mitigate these negative impacts.	Sit on the same side of the table through initial meetings. In order for their project to be successful they must have local government and community buy-in. This is also important because in the age of technology, public and international perception has the power to derail their project. We can offer them a way to show that they are trying to support the community and do CSR, through these impact projects.	Medium - Meet Needs	First meet them in their main office in Kampala. Then try to schedule an on-site field meeting.	Once at the beginning of our time in-country. Then depending on how initial talks go, plan for bi-monthly phone calls.	Michal, Cyprian
News outlets - Daily Monitor	(+/-)	Interest Group	TBD	The publicity of our projects and especially the potential products the community groups will be producing would help us find markets and new stakeholders.	Daily Monitor already participates in agriculture training and is interested in our agriculture work. They also have deadlines and requirements for number of stories they need to produce.	The news outlets are constantly looking for more stories to show and so by presenting this work as related to what they are already connected to - agriculture trainings, and demonstrating that this district is still very unknown to the majority of Ugandans, there could be much interest to hear the stories of the groups.	Medium - Meet Needs	In their office in Kampala, and hopefully at an event in Buvuma, and via Skype when not in country.	Before project implementation, weekly during implementation, before leaving country, and monthly thereafter.	Cyprian
International Level										
The three other team members working to set up this NGO	(+)	Decision Making	Sarah, Cyprian, Michal	If any relationship fails, the entire NGO is threatened. Internal stakeholder engagement is crucial here, especially in such a small tight-knit group of four people with different motivations, leadership styles and backgrounds.	Sarah is thinking of using this work as her PhD thesis around public health. Cyprian wants to make an impact in his community in Buvuma but also to make money to support himself. Michal is leaving for India after this summer and wants there to be a plan where he is not in charge.	To build and maintain trust for continued effective collaboration, there must be open and consistent communication. This includes daily check-in meetings and having a mechanism in place for people to voice concerns or frustrations in a safe space. We have also done a Team Retreat, and discussed test results on learning and personality styles.	High - Key Player	Cornell meeting offices, and Buvuma Guest House when in-country. In the future, Skype and phone calls.	Once a week with smaller team meetings throughout when needed.	Laura
Cornell intern	(+)	Influencer	Cole Johnston	Cole is going to be representing the organization, Cornell, and Americans as he lives and works with us for two months over the summer. He also has very little international experience. He also has the power to influence Cornell's perception of the organization and internship program we are trying to develop based on his reflection and conversations with professors before, during and after the internship.	Cole is joining this internship because he wants to gain more international, field and agriculture experience. He is also driven by a passion for inter-cultural communication and conflict strategies and wants to have experience working in that arena but in a context he is not used to. It is also a requirement for him to intern abroad in order to graduate.	Work with Cole starting two months before internship begins to set expectations and develop a personal project that will provide him with the most rewarding experience possible. During the program, hold nightly check-ins with all interns and staff.	Medium - Show Consideration	Cornell office, Buvuma Guest House, and phone calls	Weekly and daily when in country	Sarah and Laura
Cornell professors working with us	(+/-)	Interest Group	Terry Tucker, etc.	Having a partnership with a facet of Cornell University has the potential to enhance the sustainability of the NGO and connect us with additional stakeholders and funding sources. They also have the power to help grow or hinder the internship program in coming years.	The professors have worked with setting up collaborations between Cornell and other international institutions in the past, and these partnerships are important to Cornell. They are interested in any potential future enhanced collaborations in Uganda to enhance outreach and projects in the future.	By posing our organization as an opportunity for increased partnership between Cornell and MU we address, or align with, their motivations while enhancing our outreach at the same time.	Medium - Show Consideration	Cornell offices	Weekly	All
Funders and donors including the Institute for African Development, and others we want to reach out to	(+/-)	Interest Group	Jackie, Grasso, etc.	The funders that we have been working with and hope to continue working with have the most power to impede or make our projects happen. Also by successfully completing the tasks that they ask of and show substantial results, they also have the power to potentially be longer term partners and provide continued funding in the future.	These funders or donors are mission driven and as such are looking for projects that align with their individual missions (the ones we are currently working with are looking for results in increased agricultural and livelihood development in Africa).	Not only do we need to demonstrate to them that our work directly aligns with their individual missions, but more so we need to provide proof of the impacts each dollar contributed to. This requires extensive M&E and effective and timely communication throughout the process.	High - Key Player	Designated offices	Monthly or when pre-determined	Laura, Michal, Cyprian
TechnoServe	(+)	Interest Group	Meralyn	TechnoServe has many connections to other NGOs, communities, and funding sources and so to have their support could be very influential in expanding our impacts and reach. For instance, they might be able to provide us with information or access to markets through their connections, which the community groups could then connect with to sell their produce from the projects.	TechnoServe is a well-established organization that works on collaboration for development. Since this organization is so established and dedicated to supporting local Ugandans, they would be most motivated by how our NGO could contribute to their outreach and scope. Specifically, TechnoServe's mission is also related to the importance of collaboration and networks and so their priorities already naturally align with ours.	While TecnoServe agrees on the importance of collaboration already we must demonstrate how our projects are worthy of their partnership. Since they do a lot with agriculture in Uganda already, that would be the easiest project to ask for their collaboration on. They have also never worked on Buvuma before and so by collaborating with us, they have the opportunity to expand their own outreach.	Medium - Meet Needs	Their office in Kampala, and at a training in Buvuma if possible	Monthly, and before and end of time in country	Michal

Climate-Smart Agriculture & Food Security Trainings (Focus Group)

Example Post-Training Monitoring & Evaluation

Group Description

1. What community group do you belong to?

2. How often do you meet, on which day and where?

3. What is your goal as a group?

4. What do you want to achieve in this season or this year?

A. Climate-Smart Agriculture

1. Did you participate in any of the climate-smart agriculture or food security trainings? How many?

2. Were any of the climate smart agricultural practices new to you? If not new, where did you learn them and if yes, what did you find most relevant to your household and why?

3. How did you benefit from these trainings?

    a. Have you implemented any of the practices already?

    b. What did you enjoy most about these trainings?

4. What are some challenges or limitations when trying to introduce this into your household?

5. How do these CSA practices help in the face of climate change?

6. Do you have any concerns or questions regarding the importance or maintenance of the CSA gardens?

7. What information do you believe will be necessary to include, or improve, in future sessions?

8. What else might you be interested in learning more about how to produce even better results?

9. Basing on observation, what has germinated and what has not? How can we intervene?

10. What is your plan of who is going to take care of the garden?

This log frame was the original document we began working with in September and influenced our further planning.

INPUTS - OUTPUTS - OUTCOMES

Input	Indicator	Output	Outcome
1. Conduct meetings with partner organizations	1.1 # partner organizations interviewed 1.2 # meetings with partner organizations	1.1 Short-long term plans developed with partner organizations 1.2 Organizations sponsor community contribution, or add greater support to projects	1.1 Long-term collaborations between LaVITO, Buvuma community members, and partner organizations 1.2 Knowledge sharing and project support between LaVITO and partner organizations 1.3 Increased capacity of LaVITO to carry out projects and expansion of pilot projects
2. Meet with Makerere University and Uganda Industrial Research Institute (UIRI) representatives	2. Written plan and agreement for collaboration	2.1 Established plan for internship program between university students and LaVITO 2.2 University/UIRI wishes to conduct research with traveling group.	2. Makerere University students travel to Buvuma Island to intern with LaVITO, supporting management and project implementations 2.1 UIRI seeks future collaborations with Buvuma District.
3. Hold training sessions for LaVITO and key community leaders	3.1 # trainings held 3.2 # participants attended 3.3 # participants with knowledge gained 3.4 # VSLA members with knowledge gained	3.1 Participants demonstrate knowledge gained on nonprofit management including successful completion of worksheets and skits 3.2 LaVITO completes NGO registration process, and becomes operational.	3.1 Participants utilize knowledge gained by leading training sessions and organizational meetings. 3.2 LaVITO creates a 1-3 year sustainability plan for the organization 3.3 VSLA groups begin setting up microfinance abilities for the pilot projects 3.4 LaVITO establishes sustained funding sources
4. Conduct community impact projects and trainings	4.1 # trainings held 4.2 # community members attended 4.3 # participants with gained knowledge	4.1 Community members learn how to independently carry out each project 4.2 LaVITO is able to independently monitor, evaluate and support project work, mitigating issues as they arise	4.1 Community members effectively complete projects 4.2 Community members have increased livelihood resilience against changes in climate

Summer Internship Overview

Overall Functions:

This internship program brings together Makerere University and Cornell University students to work together on projects of a sustainable non-profit organization to improve livelihoods and climate resilience for rural smallholder farmers in Buvuma District.

In June and July, interns will gain first-hand experience in the implementation of selected impact-driven pilot projects related to climate change, food security, and environmental conservation, as well as organizing and conducting management trainings for community project representatives. Interns will work directly with community groups in implementing and monitoring the pilot impact projects.

Month 1:
- Interns pair with an impact project and help in its training and implementation.
  - Intern(s) support with design and delivery of all management trainings.
- Interns start developing their personal projects.

Mid-term Reflection, Evaluation, and Presentation including Personal Project progress

Month 2:
- Interns begin monitoring and evaluation of their impact project(s) and continue additional trainings and support of community groups.
- Interns continue work on their personal projects
- Interns help prepare for Final Stakeholder Event

Final Project Presentations, Final Event, Submit final product, Evaluation and reflection

Specific Responsibilities:

1. **Program Support:**

a. Monitoring & Evaluation (M&E) of the pilot projects and management trainings.
   i. i.e. assist in developing and carrying out household surveys, one-on-one interviews, and data analyses.
   b. Manage administrative and organizational logistics for meetings and impact projects.
      i. assist with the handling of day-to-day expenses, breakdown and room setups, etc.

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[16] Note: These materials do not include a more complete Internship Manual provided to the interns including check lists and safety and travel background.

     c.   Take detailed minutes and notes during meetings.

     d.   Help co-deliver training sessions.

2. Personal Project Support

a. Complete final individual project based on interest (videography, training manual on technical skill to leave for community groups, or other upon approval)

b. Write a final report on the overall experience, lessons learned and recommendations

c. Provide pre-departure expectations and personal goals, mid-term reflection, and post-internship reflection.

What we expect of an intern:

- Ability to work with a multicultural and dynamic team

- Proficiency in basic computer programs including word, excel, PowerPoint

- A self-motivated mover and shaker

- Leadership and teamwork skills related to identifying community needs and priorities, and working with groups of different ages and backgrounds

- Ability to work in an unstructured environment, included limited supervision

- Willingness to live with limited resources
    - lack of access to electricity, internet, running water

Anticipated benefits for students:

- Opportunity to be a part of an emerging initiative improving community development in Uganda

- Experience the chance to collaborate, network and share knowledge with Cornell University/Makerere University students

- Cross-cultural on-the-ground work experience

- Opportunity to work with and learn from our partner organizations including the National Agricultural Research Organisation (NARO), Uganda Industrial Research Institute (UIRI), etc.

- Collaborate with an interdisciplinary team of students and professionals with backgrounds in international crop systems, environment and natural resource management, veterinary science, climate change, education, public health, agribusiness, business management, etc

- Opportunity for experiential and practical learning in project development, project implementation, monitoring and evaluation

- Flexibility to focus their internship work on topics they are most interested in. For instance, if a student is most passionate about climate-smart agriculture, they would have the chance to primarily work on that pilot project implementation. Or if a student is

interested in biogas, project management, videography, or finance, they would be able to tailor their experience to that.

Expected support:

- Ongoing technical support by the Illuminate Change staff members as needed

  - This includes continued conversation and guidance with the Cornell team throughout the Spring months to help them develop their work plans and skills for success in the summer

  - Access to resources (website and articles) on best practices for developing projects in these fields

- Guidance in drawing individual work plans for summer (June - July)

- Assistance in looking for accommodation (for renting) where necessary

- Daily meetings, guidance, and formal and informal feedback on performance

- Provision of transport for project related work

- Provision of letter of recommendation upon successful completion of internship if desired

JUN**2019**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						01 Travel to Uganda
02 Finish packing and prepare to leave	03 Meet team at MUK in Kampala to leave to Buvuma	04 First day in Buvuma Introductions & Orientation Impact Project Climate-Smart Gardens	05 Team Planning Orientation Continued Impact Project Climate-Smart Gardens	06 Management Training 1 Impact Project Climate-Smart Gardens Meeting for Reflections	07 Travel to Mainland	*08* Meet Homestay Family and Work on Personal Project Plan
09 Final plan due to staff	10 Travel to Buvuma Team Planning	11 Split into project teams: Begin project implementation Impact Project Household Food Security Trainings	12 Management Training 2 Impact Project Household Food Security Trainings	13 Continue Projects Impact Project Household Food Security Trainings	14 Reflection & Planning Mtg Travel to Mainland	*15* Work on Personal Project
16 Cont. Project Work	17 Travel to Buvuma	18 Continue Project Implementation	19 Management Training 3	20 Project Trainings	21 Prepare for mid-term presentation Travel to mainland	*22* Work on presentations, Projects & Evaluation
23 Field trip	24 Travel to Buvuma	25 Mid-term presentations and evaluations	26 Continue Project Implementation	27 Management Training 4	28 Travel to Mainland	*29* Group Meeting Mid-celebration
30 Spend time with Host						

Jul2019

Sun	mon	tue	wed	thu	fri	*sat*
	01 Travel to Buvuma & prep for week	02 Begin/ Continue Personal Project	03 Team Project Implementation	04 Management Training 1	05 Team Reflections & Travel day	*06* Continue Personal Project Work
07	08 Travel to Buvuma & Prep for week	09 Split M&E for each project	10 Continue M&E	11 Management Training 2	12 Team Reflections & Travel day	*13* Continue Personal Project Work
14	15 Work on Final project presentation	16 Prepare for Final Stakeholder Event	17 Continue M&E with project leaders	18 Management Training 3	19 Travel day & prep for events	*20* Finalize preparations for Project & Event
21	22 Travel to Buvuma & Logistic Planning	23 Final M&E and project support	24 Management Training 4	25 Closing Stakeholder Event & Celebration	26 Travel day and Prep for Personal Project Presentation	*27* Cultural Planning with Host Family
28 Work on Personal Project Deliverable	29 Final Presentation	30 Work on Reflections & Evaluations	31 Travel home			

Illuminate Change

**Changemakers Internship
with Makerere University:**

**Personal Project Plan
June-July 2019**

Name _____

Year and Degree _____

    1. What do I hope to learn from this experience?

a.

b.

c.

    2. My plan to make sure I learn as much as possible?

3.   By the end of this program, my goals are to:

        1. *Personal:*

        2. *Professional:*

4.   Based on my goals above, the area of interest I want to focus my personal project on is:

5.   This topic interests me the most because

6.   The ideas of a final product I have related to this topic are

7.   My strategies for coping with frustration or challenges that might arise are:

8.   My expectations for the team are:

9.   The expectations I have of myself are: