The PASL Model A New Agricultural Development Model for Liberia

Emmanuel Gaye Venyee Dolo

Northwest University

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Disclaimer:

Some names and identifying details have been changed to protect the privacy of individuals and groups.

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Part I: Introductory Paper

1. Introduction

Growing up in Putu Jarwodee, Southeastern Liberia, I watched my grandfather as he farmed to feed his family, including me and my mother. Venyee, as he was called, had five daughters including my mother who is the oldest. None of his daughters went to school because he could not afford to pay for their education. Every day, he worked on his farm to grow rice, cassava, and vegetables for his family. At times, he would go fishing and hunting to get fish and meat. He was a hardworking family man and a respectable member of his community.

Grandfather's house was built with mud and sticks. Its interior walls were daubed with clay which were smoothed by hand. There were no cement floors, but the ground felt warm and comfortable all the time. The roof of the house was covered with palm thatches but no ceiling. In the entire Putu Jarwodee, there were no concrete buildings, no pipe borne water, and no electricity. Besides food, Venyee and other members of the town had no money to take care of other basic needs such as health, education, and better housing. Grandfather worked routinely from 6:am, when the day was clear, to 6:00pm when darkness fell. Yet, despite his hard work, he was very poor.

Like my grandfather and his fellow residents of Putu Jarwodee, most people in Liberia still do not have the necessities of life including access to safe drinking water, professionally functional hospitals and schools, good roads, and healthy housing. A majority lives in huts with no electricity, sewage, and garbage collection system. In 1989, the country was plunged into a civil war that destroyed the social and economic fabrics of the country. The civil war worsened the economic hardships. Because of these conditions, Liberia was classified recently as one of

the poorest countries in the world. Nevertheless, as Bryant Myers points out, "poverty is only a condition of people" (105). Despite the economic and social hardships, Liberians are people with strong values and innate capacities to improve their own living conditions. They also have numerous valuable assets including agricultural resources. Although Liberia was classified as a poor country, its agriculture provides the potential for economic affluence.

The quest to improve living conditions for Liberians through development of Liberia's agricultural sector has been challenging. For decades, many agronomists, economists, politicians, business people and entities have all attempted to develop the sector with the hope that it will form the foundation of the country's entire economy. These attempts have largely centered on commercial farming through long leases of arable lands (Leiserson et al. 4), concession agriculture (Liberia National Investment Commission 2016), and recently, attempts to develop smallholder cultivation by providing agricultural inputs and subsidizing the importation of food (Co etello). There have also been numerous policies and other strategies implemented to achieve this goal.

Each of these strategies and programs comes with its own change theory and theoretical framework, all aimed at addressing the country's agricultural issues. Underlying all of these attempts are varying and competing assumptions and numerous cultural misperceptions; these are confusing and problematic, and therefore, contribute to the ineffectiveness of the various efforts. Most of the agricultural development effort is focused on rubber plantations, palm oil, rice and cassava cultivation, and development of cash crops such as cocoa and coffee.

Yet, despite all of the attempts, it was reported in 2017 that more than half of the country's imported goods were cereal, with rice, which is the country's staple food, making up over 80 percent of the imports (FAO 2017). In 2016, the United Nations Development

Programme categorized the country as a low human development country with an HDI (Human Development Index) value of 0.427. Liberia was ranked 177th out of 188 countries and territories worldwide (UNDP 2016). In other words, the country is still one of the poorest in the world despite decades of efforts to develop itself through agriculture and food security. Agricultural development and food security efforts in Liberia have failed thus far. However, grassroots development efforts can tap into Liberia's rich agricultural resources to fuel economic growth and human flourishing. Liberia will accelerate robust agricultural development and food self-sufficiency by adapting the bottom-up approach, mobilizing citizens and encouraging high agricultural productivity among them, and by organizing the agriculture sector to become effective and more productive. Based on my research in Liberia, I have developed the PASL model to provide a better framework for the development of agriculture in the country.

There are several reasons for some of the challenges faced by previous efforts that were aimed at addressing the problems of poor agricultural productivity and shortages of local food. First, these endeavors applied the top-down approaches rather than the bottom-up ones. A top-down approach can be an ineffective development approach because it isolates communities' inputs by leaving out ordinary people who should be the major actors of the entire process (Clower et al.). The framers of the agricultural development efforts saw the ordinary people as poor people and therefore looked down on them instead of recognizing that these were real human beings with values and love like everyone else (Myers 106). Any farmer like my grandfather was never considered to an important actor in the agricultural development process. The other major limitation was the fact that high production of agricultural produce was not encouraged enough among the general population especially at the local level (Kannare June1). As in the case of my grandfather, his major concern was to grow food to feed his family. He was

not encouraged to produce more than he and his family consumed. Moreover, the efforts to develop agriculture were centered mostly around government and transnational corporations. Further, the poor organization of the sector along with inadequate infrastructure, poor policies and gross limitations in institutional support to the sector contributed to the problem.

Additionally, grassroots people themselves overlooked the potentials of agriculture by allowing primitive cultural practices to get in the way of creating wealth from their agricultural resources. Like my grandfather, most farmers were not concerned about trading their agricultural produce. Instead, they were only concerned about feeding themselves. Together, these sets of challenges presented substantial obstacles to the process of developing a strong agricultural sector in the country.

This study was inspired by my history as the grandson of a hardworking farmer who was very poor because he did not have to opportunity to utilize the potentials of farming. I was also inspired by the numerous limitations of previous efforts to develop agriculture in Liberia. This study is different and important because it adopts a more responsive approach called the PASL model. PASL sees the community not just as a place and people with problems, rather, the model recognizes the community as a place where people live with their cultures and other assets that can potentially be used to solve their problems and advance the quality of their lives. Unlike previous efforts that relied heavily on exogeneous inputs (i.e. outside support), PASL encourages endogenous agricultural development forces to take control of their own agricultural resources so as to grow and sustain development on a national level. Through PASL, I want people like my grandfather to embrace agriculture as the key to prosperity rather than the source of food only.

The study also identifies critical components of agriculture and applies holistic, integrated, and interactive steps in order to maximize the benefits of agriculture while advancing

the wellbeing of the community. It then concludes with the belief that, in order to foster a robust agricultural sector in Liberia, it is important to identify and address key elements of agricultural development, reexamine cultural and business practices, and examine and reform national policies to ensure that nothing that will hinder agricultural development process is left unaddressed.

To justify the critical need for this alternative model, the study will begin with a brief history of the long unsuccessful journey to agricultural development. It will draw on the experiences, unfulfilled aspirations, and loopholes within failed development attempts. The PASL model has the features and characteristics that are effective enough to address each aspect of agricultural development. This study is grounded on the belief that Liberia's agriculture sector is like an untapped potential goldmine that, when fixed and exploited, has the possibility to boost employment, increase food productivity, enhance food security and self-sufficiency, and improve the livelihoods of the population. The discussion is organized into two parts. The first part, also referred to as the introductory paper, includes historical evidence of the numerous attempts that have been made to initiate and foster agricultural productivity. The second part presents PASL as the alternative model to agricultural development

2. Historical Overview of Liberia's Agriculture and the Challenges

Liberia is the first independent country in Africa. The region declared independence in 1847, more than hundred years before any country gain independence on the continent. Located on the West Coast of Africa, the country is bordered to the north by Guinea, east by Côte D'Ivoire, west by Sierra Leone, and to the south by the Atlantic Ocean. It occupies roughly 96,917 square kilometers and according to the July 2014 census, it has a population of 4,092,310

(Government of Liberia 2013). The country's rainforest accounts for roughly 45 percent of its land area and is the source of its timber. The plateaux occupy 27 percent of land area and are cultivated for agriculture, while the mountains – including Mount Nimba and Putu Mountain – have mineral resources, especially iron ore, gold and diamonds. Its major rivers include Cavalla, St. John, and St. Paul. These rivers offer potential for agriculture and hydroelectricity.

Agriculture has been the economic bedrock of the country (Government of Liberia 2013), providing food, employment, raw materials, tax revenues, export earnings and a market for nonfarm goods. It has secured the livelihoods of most of the population. To understand the country's agriculture sector, it is important to first examine it from the perspectives of past and present actions. During the era before independence, early settlers and indigenous Liberians had a great history and strong connection to agriculture. Making use of rich soils and other agricultural resources, tropical rainforests, and a favorable farming climate, the ancestors of Liberians displayed their farming and business skills and were known for it. In the thirteenth century, the place known as Liberia today was called the Grain Coast by visiting Europeans. The Portuguese were the first. Narrating the arrival of the Portuguese in Liberia, Mitchell writes, "early in the eleventh and twelfth centuries, we find Portuguese traders doing business along the West and North African coasts" (1). The Portuguese also named it, "The Malagueta Coast" because of the abundance of grains and Malagueta Pepper (Port Cities Bristols).

Kannare, a historian and agriculturist, explained to me, "The period before 1926 saw Liberia at its best in food production". He went on to say that the arrival of returnees from the Americas did not slow food production; rather, it accelerated it. The indigenes supplied the returnees with local foods while the returnees reciprocated by giving imported products such as tobacco, smoke fish, clothes and other items that they brought with them from the Americas.

Kannare narrated that the returnees soon embarked on farming, cultivating large farms by depending upon the traditional farming experiences of the indigenes. By the 1920s, food was in abundance. He also recounted that the country took a turning point in growing food when the returnees intensified the practice of domestic slavery and when the political forces focused their agendas on concession agriculture, neglecting other important aspects of the sector. Since the 1920s, successive regimes have concentrated more on using agriculture for political reasons rather than to promote national food security and agricultural infrastructure development through domestic productivity.

Kannare's narration and the other historical facts explained above indicate an important historical point: Although agriculture provides the largest source of employment and food, efforts to develop the sector have been embroiled in challenges. Considering Kannare's narration, one of the challenges was the Liberian culture itself. There was the culture of high power distance (Hofstede 61). This element of the Liberian culture was demonstrated by the exercise of power by one group of Liberian people over another. It was also demonstrated by government's domination of the sector, its failure to consider agricultural development as a holistic process, and the neglect of the general masses' opinions in the process.

3. Case Studies and Fieldwork

3.1 Concession Agriculture. Concession agriculture, which is the granting of large portions of land by government to a company for agricultural purpose, has a long history in Liberia. Various government regimes have collaborated with big multinational and private companies to cultivate the agricultural resources of the land. As a result, several companies established agricultural businesses in the country. Notable among the companies is the Firestone Rubber Plantation

Company. Before the arrival of Firestone, there had already been other concession agreements, including the one with a British company called the Rubber Syndicate, which established the Mount Barclay Rubber Plantation (Mitchell16). Mount Barclay was abandoned but provided some research basis for Firestone to establish its rubber plantation in the country (16). In 1926, Liberia entered into a 99-year agriculture concession agreement with the company. Before the establishment of the plantation, the following clauses were included in the agreement signed between the company and the government of Liberia: "A 99-year lease on Mount Barclay Rubber Plantation, at \$1 per acre for the first year, and \$3 per acre for each of the succeeding 98 years; A 99-year lease on 1,000,000 acres of land for rubber and other agricultural products; Exclusive rights to highways, waterways, railways, waterpower, timber lands, telegraphic and other communication facilities and electricity on the leased territory; and, the proposed construction of a \$300,000 harbor, five years after Agreements One and Two went into effect. Liberia was to refund this amount at a six percent interest through the port and harbor dues and head monies after the deduction of operation costs" (16-17).

Automatically, "Firestone acquired virtually unlimited rights over an area equal to 4 percent of the country's territory and nearly 10 percent of what is considered the arable land in the country" (Kraaji). Eventually, local people who were living on the land at the time had to leave. Their farms were destroyed, and the land was turned into the plantation. To date, there is no written evidence whether the people were compensated by the government or the company for the forced removal from their land.

Initially, the establishment of the company brought hopes to many Liberians.

Unfortunately, except for the port, the concession agreement did not impact the larger population (Leiserson). The plantation workers and local villagers experienced so many problems including

human rights abuses, unfair labor practices, non-transparent payments, and deplorable living conditions for local people in the concession area (Global Witness).

3.2 Smallholders' Cultivation. As described by the United Nations Food and Agriculture Organization, smallholders are small-scale farmers, pastoralists, forest keepers, and fishers who manage areas varying from less than one hectare to ten hectares. Efforts to develop smallholders' cultivation in Liberia began with the World Bank's 1969 visit to Liberia. Since then, numerous projects have been implemented in support of smallholder agricultural development. Three of them include the Liberia Agricultural Development and Technical Assistance Project (The World Bank 1972); Lofa County Agricultural Development Project (World Bank 1975); and the Bong County Agricultural Development Project (The World Bank 1977).

Each of these projects was conceived and implemented by three different regimes of the country. Although designed and implemented at different time periods and by different regimes, all of them had one main goal, which was to diversify the economy. The justification was that smallholder development would move the country economy away from being heavily dependent on concessions projects such as "mining, timber, and rubber, which were also dominated by foreign concessions" (The World Bank). The Liberia Agricultural Development and Technical Assistance Project was the first of the projects. It was planned to develop smallholder rubber, irrigated and rain-fed rice, cocoa, coffee, coconut, and regional agricultural extension development in the country. The Lofa and Bong Counties projects both targeted rural farmers and basic infrastructures such as roads and farm input systems. The projects also targeted the cultivation of swamp rice, cassava, coffee, and cocoa.

During the implementation of the projects, various regimes of Liberia received grants, notably from the World Bank and USAID. The grants were then used to purchase agricultural

inputs and to construct farm to market roads. Each of the projects provided local farmers with farm credits for inputs such as tools, seeds and seedlings, fertilizers, sprayers and agricultural chemicals. Also, under the various projects, approved farming methods and inputs were applied by farmers, labor was hired for swamp rice development, and village wells were constructed. Similarly, agricultural cooperatives were founded or expanded, and extension services were provided. Furthermore, the capacity of the Ministry of Agriculture was strengthened to be able to plan and initiate agricultural development, improve banking facilities, and to improve road construction.

However, despite these activities, the evaluation team of each of the projects captured many problems and setbacks at the end of each of them. The Liberia Agricultural Development and Technical Assistance Project experienced four weaknesses or failures: 1) The inadequacy of the Agriculture Ministry's planning and management capability; 2) The limited financial resources available; 3) The low caliber and limited number of staff available; and, 4), The lack of government interest in developing agriculture (The World Bank 1980).

In the same way, the Lofa and Bong Counties agricultural development projects encountered numerous failures and setbacks. In the final reports for each of the projects, the World Bank reported failures and unmet challenges (The World Bank 1983); (World Bank 1984). While the government may have succeeded in getting the money and implementing the projects, it is not clear whether it succeeded in achieving the project goals. All areas of the projects experienced some degrees of sterility.

4. Current Outlook of Liberia's Agribusinesses.

The poor performance of the agriculture sector, which has resulted in shortages of local foods and numerous other problems, led me to undertake a field study in Liberia. As a Liberian, I was concerned by the level of poverty, food shortages, and other economic and psychological effects that have engulfed a country that is imbued with vast natural resources, especially agricultural resources. In the same way, as a grassroots person and a poor farmer's grandson, my goal was to examine the strength and weaknesses of farmers and other stakeholders of the agricultural sector in rural Liberia. Further, I wanted to know how impactful the numerous agricultural programs have been over the years. Particularly, considering my grandfather experience, I was concerned about the level of transformation in relation to farmers' knowledge in areas such as farm management, agricultural products processing, marketing, transporting, and so on. Furthermore, I wanted to know the impacts of agricultural programs on the social and cultural lives of ordinary people and their communities.

I went to Liberia with a few suspicions. First, I suspected that there were some unchecked problems at the grassroots levels that were impeding the national agricultural development efforts. I also had the suspicion of a disconnect between hardworking grassroots farmers like my grandfather and national agricultural development initiatives. Finally, I concluded that if my first two suspicions were confirmed, then the other suspicion would be that sustainable capitals were not considered to be important factor by previous agricultural development programmers.

Consequently, with these goals and suspicions, I focused my fieldwork on investigating agricultural enterprises as business entities while also exploring the gaps between agriculture and business. The field study in the four counties was carried out against the backdrop that these counties have been the center of agricultural development in the country for more than half a

century. In order to accomplish this, I spent two months in Liberia where I interviewed local people and volunteered with Liberians for Agriculture (LFA). LFA's mission is to strengthen food security of Liberians and increase the income of smallholder farmers (SHF).

During the research in Liberia, I was responsible for leading a team to map out LFA's supported and potential entrepreneurs and farming enterprises. Some of these enterprises were involved or want to get involved with farm produce aggregation (mass collection of agricultural products) and sell to bigger off-takers of farm produce. The enterprises included aggregators (i.e. wholesales buyers and sellers), processors, and wholesale distributors of agricultural commodities. The mapping exercise was also aimed at initiating business relationships between farm-level aggregation, enterprises, and bigger off-takers of farm produce.

In support of the effort, a 47-day community outreach, one-on-one interviews, focused group discussions, and working meetings were carried out in LFA's four operational counties of Bong, Lofa, Montserrado, and Nimba. My team and I conducted the exercise in collaboration with the LFA Teams responsible for LFA group A and B; these two teams were, in turn, responsible for linking the enterprises to local and international markets.

5. Summary of Findings and Results

My team and I engaged forty agribusiness enterprises in four counties. These enterprises included farmers, processors of agricultural products, and aggregators (wholesale buyer or broker of agricultural commodities). The exercise focused on the enterprises' organizational structures and histories as well as their operational and management capacities and basic needs. In light of this, the team investigated the enterprises' memberships, leadership structures, and histories. Likewise, we investigated the business relationships and market linkages amongst farm-level

aggregation enterprises and producers. Their achievements and operations, as well as management challenges, were closely investigated as well. In each of the four counties, the mapping exercise concluded with the formation of an agribusiness network to promote aggregation clustering (bringing similar groups together) and to establish and promote market linkages.

During the fieldwork, I applied various methods of research, including qualitative case study, ethnography, and appreciative inquiry. I lived with rural farmers and processors for more than thirty days. Living with the locals and participated in their ways of life allowed me to experience their cultures (Holmes 2). I also grouped the various enterprises and questioned them about the specific experiences and challenges. That way, I was able to analyze each group within its bounded system (Merriam and Tisdell 37). Furthermore, instead of dwelling on the weaknesses of the groups, my research was focused on the best achievements of the enterprises. According to Merriam and Tisdell, groups can better solve their problems together when they focus on sharing appreciative stories about themselves and their enterprises (5). Hearing the stories of the groups allowed me to document, analyze, and understand their social and psychological experiences. Finally, I recognized the role of assumptions among people who endure challenges. Therefore, the mapping exercises and working meetings were designed to discuss the assumptions of the various groups (Hammond 10). These methods allowed me and my team to discover very important findings.

The forty enterprises that were engaged have a combined membership of approximately 12,560 people. The membership was categorized into male and female, then further subcategorized into mothers/other females, and older/young men. Further, the entire membership was categorized into adults and youth. Generally, females dominated the entire membership with

54% and males constituted 46%. In the female category, the mothers dominated with 56% while other females constituted 44%. Within the male category, young men dominated by 55% while older men constituted 45%. With the youth and adult categories, the youth constitute 52% and adults 48. Of the general youth category female constituted 56% and male youth accounted for 44%. the mapping team found one of the major issues to be the lack of leadership/management structures.

In regard to leadership thirty-three (or 83%) of the enterprises mapped reported choosing their leaders through elections; six appointed their management teams through their board of directors. One organization reported it had no knowledge of whether its leaders are elected or appointed. In addition to leadership problems, most of the enterprises did not have mission and vision statements. Of the forty enterprises, only four (10%) had a mission or vision statement; twenty five (or 65%) admitted not having any mission or vision statements, and ten (25%) claimed they had the statements but could not present evidence. We also found that all the processors did not have storage facilities, adequate transportation or processing and packaging equipment. All processors interviewed had no knowledge of marketing and market linkages. Additionally, poor quality and inaccurate measurements were discovered among the processors.

In respect to enterprises' management, financial accountability, and operational capacities, the mapping team found that roughly 95% of them did not have financial statements, with the other five claiming to have had some statements. Of the 5% that made the claims, none provided any proof. Out of all those who were interviewed, 99% did not know the meaning of financial statements. Similarly, 90% (thirty-six) of all the mapped enterprises started with business plans. Only four (10%) who reported business plans were found to have no knowledge of how the business plans were prepared; the business plans were prepared by their donors and

they were instructed about how to use them, although they had no idea as to how to use a business plan.

Likewise, 90% of all the mapped enterprises did not have proper accounting systems.4 (or 10%) claimed to have accounting records that were prepared by outside donors, but not themselves. All of the forty (100%) enterprises could not really tell the meaning and purposes of either accounting or accounting systems. As for value chain, one of the major job creation aspects of agriculture, only three made mentioned the process. Notwithstanding, only one of the enterprises showed the team evidence.

6. Lessons Learned and Justification for a New Agricultural Development Model.

These case studies give strong evidence of the issues and challenges that have kept the agricultural sector from flourishing. In the first three case studies, (those relating to concession and smallholders), I observed three key issues: government control and monopolization, short-term and limited strategies, and failure to develop agriculture as a mainstream sector of the national economy.

In each of the case studies, government has controlled and monopolized the processes and activities of agricultural development. It was evident through all of the program documents that the government signed concession agreements, then prepared agricultural development projects and implemented them with very little or no participation from the private sector or community. As I understand, the farmers received farm inputs from government's agencies, then sold their crops back to the government after harvest. There were no middlemen, no private traders, and no community inputs when it came to decision-making regarding prices. This rendered the entire

agricultural development process a "government show", making it susceptible to failure because the people who should have been the key drivers were not involved the way they should have been.

The second issue was the short-term focus of the strategies that were applied. The agricultural development objectives and activities were not centered on creating long-term impacts. They did not consider long-term transformative objectives such as human development, development of agricultural resources, long-term national production organization, and the establishment and nurturing of infrastructures (institutional and physical) that would have sustained sector growth and development. As a result, there were several shortfalls within the sector, including the lack of skilled labor force to improve productivity, mismanagement and depletion of agricultural resources, poor infrastructures, poor policies formulation and application, and an unlinked and somewhat disorganized sector.

The third issue can also be found within the first set of case studies. These brought to light the failure to bring agriculture into the mainstream of the national economy. These case studies, particularly the Mount Barclay and Firestone Rubber Plantations, showed that the country adopted an enclave economic model when it came to agriculture. In an enclave economy, a business sector in a localized region shows profound differences from the surrounding areas and economy. (Dontigney). Also, the main export sector is usually controlled by foreigners and domestic household suppliers are neglected by labor because of luxury imports (Conning and Robinson 361; WeissKoff and Wolf). The imported commodity at this time was rice.

In the case of Syndicate and Firestone, for example, their plantations were secluded from surrounding towns and villages, and their economic gains were territorial in a sense that the agricultural economic activities within the plantations had little effects on the surrounding local economies. It can be argued that although economic activities may have unfolded within the

plantations, they might not have interacted with the rest of the economy in an impactful manner. In other words, the plantations were booming while the rest of the communities suffered. This resulted in disconnection and disintegration between the economic activities within the plantations and local farming activities in the rest of the country. These and other disconnections left the agriculture sector fragmented and weak, which eventually resulted in low productivity, food shortages, and low employment or the lack of well- paying jobs within the sector. The key lesson from these case studies is that, not only were the agricultural development strategies not harmonized, the sector itself was not aligned strategically to contribute to the overall national development effort in a more productive manner.

Besides the case studies, my fieldwork sheds light on the key grassroots causes of the poor performance of the country agriculture sector. These findings are crucial for several important reasons. First, the four counties in which the data was collected are the country's most productive agriculture hubs. Compared to other counties, Lofa and Bong are considered the "bread baskets" of Liberia because of their high outputs. Second, for almost five decades these counties have been the testing grounds for several national agricultural policies and programs and have received huge grants and other supports. The final reason is that these counties have received more attention than others when it comes to agricultural development. For example, in the past fifty years or more, local and international nonprofit organizations, businesses, and government institutions have focused their agricultural development activities in these areas.

Furthermore, these findings reveal that in spite of the support to the agricultural businesses in these regions over the years, many problems and challenges persist. I interacted with some of the farmers and other agribusiness enterprises to understand how they have been impacted by the support over the years as well as the challenges they face. Prominent among the groups that I

interacted with was a women's group named Gbelekeh Women Farm Cooperative. The group leader said in an interview, "We have been around here for a very long time, say for more than twenty years, and I can tell you that all the major NGOs [non-governmental organizations] and government agencies have supported us. They have given us money and training" (Saye August 21). The claim was supported by the dozens of donor-support billboards that were lined up in front of their factory. The billboards included the names and promotion statements of numerous donor organizations and government agencies.

Besides the Gbelekeh Women Farm Cooperative, there were several other groups I interacted with, including Tarpeleseh Farmer Cooperative. This farming group, based in Nimba county, has been around since 1976. During an interview, the group's president said, "We were one of the groups who received support through the Nimba County Rural Development Program in the 1970s. Through the program, the government gave us farm tools, seed rice, etc., and we sold our crops to them through LPMC" (Zarwola). LPMC is an acronym for the Liberian Marketing Company, a government agency that bought agricultural produce from farmers in order to sell to overseas corporations. The stories of these enterprises are indicative of how the top-down agricultural development programs and policies have not prepared these key actors to improve productivity, attract investment support, or build an interlinked-market system.

Overall, my findings indicated the government's failure to improve the development of Liberian agriculture. These findings also show how the issue of gender has been misunderstood. In my view, the mere separation of women's groups from others', as in the case of Gbelekeh Women Farm Cooperative, does not address the critical roles of gender in agricultural development. The role of gender, particularly from the aspects of masculinity and femininity, must

be recognized is a success factor in development work (Hofstede 140). However, I do not think mere separation was a solution to the problem of gender inequality.

To stimulate and foster a robust agricultural sector, both organized productivity and the market system are factors to consider. At the same time, the sector's performance will be enhanced by a complete understanding and monitoring of the factors of production, especially labor and land productivity. Ricardo Acosta, an international professional in the field of development, stressed that land and labor productivity are key factors to consider in agricultural development strategies. He warned that "the understanding of the levels of agricultural output per worker and per acre of agricultural land is critical in the process of agricultural development" (July 19). Dean and Harper also argue that the availability of productivity data allows analysts to compare "the number of goods produced to the number of people needed to produce them" (55). Without proper data, it is difficult to know how the productivity process is performing; yet as indicated, almost all of the local agricultural enterprises I interacted with cannot generate productivity data because they lack the skills to do so.

The most critical part of the findings were poor agricultural business development and the lack of proper management skills. These skills are some of the critical success factors for any enterprise. Incentives and investments create the conditions for high productivity and profitability, which are the key drivers of a prosperous agricultural businesses. Like any other business enterprise, agriculture entrepreneurship such as farms, factories, and trading agencies, must be planned and managed properly if they are to succeed and thrive. These case studies provided answers to my other research question: "What business development and investment challenges affect stakeholders of farming businesses in Liberia?" At the same time, new questions regarding the managers of these projects also emerged from these findings. For example, why didn't the

managers discover these problems? How much responsibilities do they bear for these failures? A project manager is responsible and accountable for the successful launch, execution, and most importantly, the outcome of a project (Whitten 80). These findings highlight the need for professional accountability in Liberia.

The combined effects of poor policies and unsustainable programs at the national level, as well as the weak infrastructures and poor business development skills at the grassroots level, weighed heavily on agricultural productivity in the country. This situation cannot be allowed to continue. Now that these issues have been discovered, they must be corrected so as to maximize agricultural productivity in the country; the implications of these findings must be taken seriously. I will argue for and propose a durable approach to agricultural development that will build and sustain foundational grassroots conditions, which will then eventually support the growth and development of agriculture at the national level in Liberia. In so doing, I present the PASL model as the best alternative option for the agricultural development process in Liberia.

Part 2. PASL: The New Agricultural Development Model

Bridging the Gap Between People and their Assets to Support Sustainable Livelihoods (PASL)

7. Description of the Model

There is an urgent need for a new workable model for agricultural development in modern Liberia. This paper presents a new model for achieving the goal of overcoming the systemic, structural, and cultural impediments that have hindered the development of Liberian agriculture. I developed the PASL model following analysis of the limitations that have engulfed Liberian agriculture. The model is designed to apply the concepts of community development, especially

holistic and asset-based community development approaches. It also employs the concepts of sustainable livelihood development. Through this model, I have outlined a number of focus areas:

- Agricultural integration and modernization;
- Organization of agriculture productivity;
- Policies and institutional reforms;
- Agricultural and strategic program alignment; and,
- An analytical reexamination of the agriculture market.

In doing so, I have identified and discussed the underpinning issues, focusing on the gaps in and long-term implications of ineffective policies and poor programming, as well as inattention to inadequate or nonexistent infrastructures that are desperately needed to foster agricultural development. Further, drawing on the case studies and my fieldwork in Liberia as outlined in the introductory section, I identify specific features of PASL and how each of them will contribute to solving the issues. I also present a checklist for continual monitoring and evaluation of the model in order to ensure the improvement of agricultural development and that the tools reflect changing conditions over time.

The development of the PASL model, was encouraged by several challenges. First, the current reliance of the Liberian population on imported agricultural products is alarming. This issue requires a new mindset in the process of developing the agricultural sector of the country. Second, the country ranks among the poorest in the world. Therefore, the idea of spending desperately needed national funds to subsidize the importation of food could eventually leave the government unable to get out of a cycle of debt. Also, unlimited subsidy to imported food may render government unable to address certain basic national needs such as health, education, and national development. Third, the rest of the world is advancing economically on a daily basis;

delay in developing the agriculture sector will create an unfortunate situation where the country will not be able to utilize available agricultural resources to boost its economy and improve the livelihoods of its people.

The agricultural sector of the country cannot be allowed to continue on this path. I strongly propose that the PASL model be used as the solution to agricultural and national problems. The model will help to fill in the missing pieces and will accelerate the process of developing a high performing agricultural sector. Some of the missing pieces highlighted in my argument concern loosely integrated approaches. As indicated in the introductory paper, the lack of attention to local agricultural enterprises is concerning. These enterprises are the grassroots foundations of the larger agricultural development mechanism. At the same time, it is worth noting that PASL is a new, and therefore untested model, and it will need to be tested against existing models.

7.1 The Purpose of PASL. PASL is a multi-dimensional model with the purpose of contributing to the process of developing Liberia's agriculture sector. It also aims to solve the national food crisis by bringing together sustainable capacity development and key drivers of agricultural development. It supports the development of sustainable livelihood capital and proposes that efforts be made to focus on policy reforms, development of institutional and physical infrastructures, and encouraging investment inputs and market development. Bridging these gaps will help boost productivity that responds to the country's population growth and its continual dependency on imported food. PASL is designed to empower Liberians to increase food production and boost the income levels of farmers and others. The model has the following objectives:

- To provide a national direction for agricultural development
- To bridge the gap between agriculture and other sectors of the national economy
- To lay out the framework for communities to develop their own capacities in order to maximize the benefits of the opportunities within and outside the agriculture sector.
- To introduce the process of agricultural industrialization in Liberia
- **7.2** The Scope of PASL. PASL's theory of change starts with grassroots actors of the agriculture sector. Through the model, local communities are empowered to conduct their own research and improve technologies. The model also empowers the locals to attract investments in agricultural inputs and enhances collaborative visioning among agricultural stakeholders, so they can set their own action frameworks and identify priorities for action. These frameworks are then advanced to national and international institutions, especially nonprofit organizations and the national government. In other words, PASL is a grassroots initiative that empowers local communities to work their way up to national and international levels of agricultural development.
- 7.3 The Components of PASL. The components of PASL include sustainable livelihood capital development, policy reform and application, development of institutional and physical infrastructure, investment in agricultural inputs, and market organization and development.

 These components work together to produce the desired outcomes. Although they touch on larger societal issues, the components work well from the context and conditions of grassroots initiatives.
- **7.4** The Theoretical and Conceptual Frameworks of PASL. At the core of PASL is the belief that sustainable livelihood should be the end goal for agricultural development because

historically, agriculture has been the main source of livelihood throughout the world (Federica 1). The model is also based on the belief that basic available communal resources can be utilized to support livelihoods. As Schervish and Whitaker explain, when people have wealth, they "have the capacity to produce alternatives to conditions and to set their hearts on great aspirations and responsibilities" (7). For example, farmers and processors must make use of their relationships with business managers and accountants within their community to turn their assets into wealth. In the case of my grandfather, he had a fertile land and was growing crops, but he had not connection to the people with business ideas. For this reason, he was limited to feeding himself and family. Additionally, there must be connections between the business community and the transport companies; this will improve the agricultural market. At the same time, concession agriculture must incorporate local smallholder farmers, as well as open up to local surrounding communities by establishing local manufacturing and other operations to employ locals and increase their skills. PASL is a grassroots development model that supports the development of people through utilization of their communal assets. This is an efficient way to foster sustainable livelihoods in Liberia. Agricultural resources such as farmlands, water bodies, rains, the farmers, and traders, are essential communal assets. At the same time, assets by themselves cannot provide the kinds of livelihoods that will lift people out of poverty. Consequently, the model recognizes that through interactions with other forces of the economy, community agricultural assets have the potential to become critical catalysts with potential to transform the living conditions of people and boost their country's economy.

Asset-Based Community Development (ABCD) is the key part of the model. Rather than focus on what is absent or what the community needs, PASL focuses on what is available. The belief is that in every community, regardless of the challenges that might be present, there are

some assets that can be utilized, cultivated, and improved to advance the livelihoods of people. As discussed by Kretzman and McKnight, the ABCD approach is primarily concerned with identifying and mobilizing the existing assets within a community. They argue that "each community boasts a unique combination of assets upon which to build its future "(5). These assets include gifts, productive skills, and capacities of community residents. There are also associations, institutions, and physical characteristics such as land, buildings, and infrastructures (7). Every community has some assets; therefore, development initiatives must rather focus on the assets than needs. Walker explains, "Because asset-based community development concentrates on a community's upside, people do not assess needs, or deficits, first but assets" (26). Instead of looking through the needs lens, the ABCD approach looks for strengths that can be employed for progress.

Liberia's assets include agricultural labor skills, talents, passions, and interests that are intrinsic within the individuals, groups, and communities. There are also lands, rivers, the Atlantic Ocean as well as other agricultural resources and existing infrastructures that can be improved for agricultural use. By identifying and mobilizing the existing assets within the agricultural sector, and utilizing them to support the sector, the goal of poverty reduction, food security and self-sufficiency, and the promotion of a robust agricultural sector can be achieved in Liberia.

8. The Design of The Model

PASL proposes that the culture of design and planning serve as the critical factors in creating agricultural development strategies for Liberia. Agricultural development planners are able to identify goals and objectives. Proper designs and plans will ensure that problems are defined, and clear and realistic goals are set. Good planning will also result in framing,

organizing, and implementing clear strategies. The model recognizes that a good program design will lay out the processes, plans, and the real reasons behind agricultural development in Liberia. Without an effective plan and a good design, the likelihood of failure is often high. To be successful, it is important for agricultural development planners to give more attention to the design and planning processes. At the same time, planning and action must go hand in hand. Kelley and Kelley believe that the success of creating development programs rely deeply on creativity and innovation. For them, designing and planning are not straight-shot processes. Solutions may not be found right away. One must keep trying even in the face of successive failures. They caution, "To embrace that level of experimentation [trial and error], don't get stuck in the planning stage" (114). Innovation happens when ideas are turned into action as quickly as they are conceived. Great ideas and careful planning work when they are put into action.

Further, the ideas of design and proper planning are indispensable success factors. Lynch and Walls explain, "good plans provide basic communication documents that can be used to engage with outsiders (54). A good plan, according to them, is important for several reasons including identification of weakness, strength, opportunities, and threat. Good designs and plans can be used to also articulate the work that will be done. Moreover, by having a clear and concise understanding of what the goals and strategies are, the basis and contexts for other subplans can be developed, which then provide the indicators for tracking progress and help to set the foundation for accountability.

The problems faced by the agriculture sector in Liberia require innovative and creative solutions. It has to be recognized that in order to develop good ideas for solutions, the people must first develop an action-oriented mindset. Kelley and Kelley believe that a perfect plan or

forecast will come over time, but action can make a positive difference (116). Regardless of backgrounds and social status differences, the collective wisdom and individual sacrifices of all Liberians are needed to change the situation for the good of the country. There may be some knowledge gaps, but using a practical, hands-on approach can lead the country to fill the "knowing-doing gap" (Kelley and Kelly119). In other words, the temptation of not doing what must be done should be avoided because procrastination will accomplish nothing. There are gaps between the people and their resources on the one hand, and on the other, the potential for improved livelihoods. To bridge this gap, the PASL is designed to follow this order: Sustainable livelihoods driven, demand-driven and progressive development approach, holistic and systemic approach, cultural modernization, data driven, sector management through financial and social impacts metrics, and continual recalibration of the model.

8.1 Sustainable Livelihoods Driven. The proclaimed goals of agricultural development policies and programs in Liberia have been centered on making available the necessities of life through self-sufficiency in food production, enhancing the living conditions of Liberians through profitable agricultural activities, and diversification of agricultural income through the development of smallholder productivity (World Bank 1972; World Bank 1975; World Bank 1977). Notwithstanding, the reality is that besides the Liberian Produce Marketing Corporation (LPMC), it is difficult to trace any other tangible outcome from the projects. Hence, it is difficult to point out any sustainable impact that resulted from any of the projects.

Therefore, this model proposes that people, both urban and rural, institutions and businesses, and government authorities must all be empowered to generate assets and embark on activities that improve themselves and their communities in a more durable way. Liberians must

be empowered to take ownership of their own agricultural advancement in a way that encompasses provision of education, development of agricultural technological skills, and business development skills. All of these skill sets need to be integrated and imbedded within the agricultural development strategy design because the primary goal should be the elimination of poverty through involvement and empowerment of the people.

8.2 Local and International Demand Driven. The identification of the drivers of the development process is an important factor of the design and planning processes. Past models have not been clear on what really drove their national agricultural development agendas. As a result, it seemed as if every effort that was made did not lead to the goals. For example, the Firestone Rubber plantation story and the agricultural projects discussed were all intended to help the development process. Various regimes made huge efforts in making sure these programs were developed and implemented. While the expressed goals were outlined, it was unclear if the design process captured the views and aspirations as well as the creative contributions of the people in the communities where the programs were implemented. It was not clear also whether the experiences and challenges of farmers like my grandfather were factored into the plans. Consequently, it is also unclear what drove the approaches.

Involvement of beneficiaries of the projects during the early stages would have changed the contents of those programs. It would have also enriched the creative design process. As Kelley and Kelley state, "in a world filled with so much creative potentials, it is dangerous to assume that all the good ideas are found at the top" (207). Lynch and Walls warn," No matter how you get it done, make sure your plan covers the key points your stakeholders want, need, and deserve to know" (55). Accordingly, knowing the demands of local markets is as important as knowing the demands of the international markets. Therefore, the agricultural development

process in Liberia needs to be driven by both international and local market demands. Together, these demands must be served but with particular focus on the improvement of the condition of the Liberian society.

8.3 Systemic Approach. The design of agricultural development approaches must be holistic to deal not only with the symptoms of problems but also the deep-rooted systemic issues that fuel the problems. In several of the projects discussed above, holistic thinking was absent or unclear, resulting in the lack of a systemic approach. There was no provision in any of the projects discussed that included business development or farm management skills for local farmers. If there were such provisions, the likes of my grandfather would have benefited. There was also no provision within the Firestone Agreement that points to a long-term development of domestic industrialization of the rubber crop. The absence of this perspective has left the country's citizens with no ability to industrialize the crop even though the production of the crop has been in existence for almost one hundred years.

The lack of systemic approach is also seen in the government's food security. In recent years, the government of Liberia and its international partners have conducted series of surveys to assess food security and nutritional problem (Ministry of Agriculture 2009). In 1988, "A Food Security and Nutrition Secretariat was set up and placed in the Ministry of Agriculture to spearhead the implementation of the strategy of the Joint Food Security and Nutrition Program" (Ministry of Agriculture 2017). According to the ministry, the work of the secretariat is to monitor the nation's food security and nutrition situation and to coordinate food security related activities and programs.

This strategy, in my view, does not capture the systemic context of food productivity. Instead, government subsidies for food imports make food available, but do not encourage its domestic production. The government spends roughly US\$20 million annually or 15% of the national GDP (Gross Domestic Product) on food importation (Ministry of Commerce & Industry 2016). It is believed that the government spends this huge sum of money because national development planners have not analyzed the concept of food security. Food security as discussed by Yushi et al., "is an extension of the internal balance between food supply and demand in a country or region" (Mao 109). It is not clear whether the Liberian program designers understand the vagueness around the word "supply" in the above definition. In my opinion, food can be "supplied" by "anyone" therefore having access to food at any given time does not guarantee food security as long as the production of it is not controlled by the ones consuming it.

Food security is a popular idea because the traders from industrialized and advanced agricultural countries are always seeking markets for their produce. Therefore, it is important for Liberia, a developing country, to take a closer look at the advantages and disadvantages of the idea of food security by considering its origin and goals. The idea of food security according to Yushi et al., was introduced because of the global food crisis of 1972-1974. At the time, the crisis drew international attention to food shortages and how to ensure secured food supply for the world population. Thus, the Food and Agriculture Organization (FAO) organized a World Food Conference. Soon afterwards, the International Undertaking of World Food Security was adopted by the board of directors of the FAO. Since then, the issue of food security has been discussed (110). Obviously, the goal of food security is centered on making food available, not necessarily empowering people to produce their own food. This is not to say that food security is

a bad idea. My point is, food security from a Liberian situation, should not be about spending money to input food. Rather, food security should be systemically planned in ways that the money that is used to purchase food from far away countries should rather be redirected to local farmers, so they can solve their food insecurity problem by producing their own food locally.

Furthermore, bringing this discussion into the systemic context of Liberia, the subsidized food importation approach does not capture other holistic and multi-dimensional issues that relate to domestic food productivity. In the field of development planning, "narrow design of policies and programs can have huge implications on society; therefore, a great deal of attention is paid to formalizing insights within policy formation and application" (Lauwers 1). A systemic approach that incorporates holistic but also strategic aspects of challenges will deal with the problem of ambiguity. By holistic approach, I mean an approach that considers all aspects of a problem. This is central to the agricultural development because systemic approaches through holistic thinking will address agricultural issues and challenges in an all-inclusive manner. The approach will also empower farmers and other agricultural businesses to become more competitive. Being holistic will also improve markets, boost productivity, and empower stakeholders to respond to specific issues in a larger context of the problems.

This model presents the argument that agricultural development in Liberia must include and address all systems of agriculture. According to Antl et al., agricultural systems include the entire ecosystem, which is comprised of biological, physical and human components. Thus, they argue, "It is typically important to consider many different interactions within and among these systems if we are to meet stakeholder needs for actionable outcomes" (Antle 70). A systemic approach will outline, integrate, and address individual problems but in holistic contexts. The

model considers and applies all the systems and issues that are needed to improve Liberia's agriculture.

8.4 Cultural Modernization. For decades, agricultural development models have left culture out of the design process. This is a shortfall because culture is considered a key factor in the productivity process. There needs to be an examination and modernization of the cultures of Liberia in order to not only understand how it would impact agricultural productivity at the onset of the process, but also how it will foster it in the long run. For agriculture to be transformed in ways that affect the lives of ordinary people, Liberian society needs to be modernized to cope with emerging patterns of life as well as opportunities and challenges. Society, as Macionis observes, cannot exist without culture because it "refers to people who interact in a defined territory and shared culture" (35).

The Liberian way of life, which includes the values, beliefs, and behaviors of all Liberians, is an essential factor that affect agriculture. Therefore, the culture needs to be examined, and new ways of doing things need to be introduced in order to modernize that culture. Cultural misperception has to be addressed by providing accurate information about modern life and how culture fits into it. Specifically, the design process must seek to address misperceptions, progress-killing traditions, and the decentralization and integration of agricultural skill and knowledge. My grandfather could not apply any method of farming outside of his culture because there were no programs to empower him to do so. He was trapped in a cycle of poverty because of primitive farming methods and traditional practices.

8.4.1 Agriculture is the Gateway to Economic Growth

Contrary to cultural misperception, agriculture is not only a native person's career.

Rather, it is the gateway to food production, self-sufficiency, and economic growth. Although there was a high productive and successful agricultural economy in the pre-independent era, it has suffered in modern times. In order to understand why pre-Liberian agribusiness was more successful than modern day, I interviewed Harris Kannare. He revealed that,

One of the reasons agriculture has not been developed in rural Liberia and all over the country is because, in school, not many people want to study agriculture due to cultural belief. It is believed in our culture that agriculture is a countryman's career therefore people who earned degree in the field of study are not respected in their communities. (June 7)

This belief has made it hard for Liberian students to learn the basic modern theories of agriculture, making it challenging for Liberian farmers to learn modern methods of farming, aquaculture, and trading techniques. Although the misperception is waning, degrees in the study of agriculture are still being looked upon as poor people 's degrees.

8.4.2 The Impact of the Culture of Domestic Slavery.

When the free slaves from the Americas returned to the region that is now called Liberia, they brought with them the culture of domestic slavery. Without understanding the practice, many rural Liberians sent their children to live with the returnees, also referred to as "Congo People". The "Congo People" lived in cities and were the only group of people who controlled the wealth and education at the time. During the interview, Kannare also revealed that as young boys and girls from the interior moved in with Congo People, they "had to change their names

and denounce their origins. Each boy or girl who lived with them was given a different first name and was forced to carry the last names of their owners. As the children grew and became educated, they were disconnected from their culture and origins" (Kannare). This played a key role in the problem of rural poverty and poor productivity in agriculture because rural people were not educated to change their misperception. The disconnection between countrymen and their educated children also reinforced the culture of illiteracy in Liberia.

8.4.3 Wastefulness is not Wealth: Wealth is not Wasting Anything

The study of economics teaches us that the scarcity of resources is why people must make informed decisions when distributing or using what they have. Unfortunately, in most Liberian culture, wastefulness is considered a sign of wealth. A town is considered rich and wealthy when its crops and animals abound wastefully. Alphonso Saye, a farmer and leader of a local village in Nimba, central Liberia, told me, "Our people believe that when you have everything wasting, rice wasting, cassava wasting, goat and sheep wasting, then you are wealthy and powerful, even if you don't have clothes to wear" (August 30). Wastefulness of agricultural produce has not only been one of the root causes of severe poverty, it has also stagnated agricultural development among rural people in the country.

PASL proposes the modernization of the Liberian culture. The process needs to begin with the decentralization of education in agriculture and reorientation of rural Liberians toward understanding the important role of economic principles in wealth creation. Traditional people must be aware that agriculture is the foundation of economic growth as well as poverty reduction especially among poor people. Therefore, changing primitive cultural practices and perceptions must be integral in agricultural development strategies. Cultural change may not happen

overnight but continual exposure of traditional people to outside cultures and examination of the effects of the current traditional practices in the context of other cultures might lead to gradual change. It is also the central belief of the PASL model that instead of being inactive objects, the people for whom strategies are formulated must be the key actors of the process to develop agriculture.

8.5 Data Driven Sectoral Management Through Financial and Social Impacts Metrics.

Agricultural development must be driven by the various needs of the Liberian people. To achieve this, it is imperative to gain a clear understanding of the situation by collecting, investigating, and organizing the information that is necessary to manage, monitor, and most importantly measure the impacts of the process. The design must include research, sectoral management, and the development and application of metrics to measure not only financial impacts but also the social impacts.

8.5.1 Research

Developing the agricultural sector of an entire country can be an enormous undertaking. The challenges of fixing a century's worth of cultural and systemic problems can be intimidating and discouraging. To solve problems, one must have an in depth understanding of them. The PASL model proposes that solving the problem of the poor agricultural sector begins with the recognition that research is the key to agricultural development. Times have changed; the population of Liberia is growing. The social and economic needs are also increasing daily. To cope with the growing shortages of food and the deteriorating economic hardships in the country, agricultural development decisions must be informed by research. If any agricultural

development initiative is to succeed, be it through the private or public-sector initiative, it is important for such an initiative to be driven by research.

Many governments around the world invest in research. The US government, for example, invests a lot in agriculture research. The value of agricultural research and development cannot be overemphasized. The United States, for example, "has led the world in providing the necessary federal support for research and development (R&D) that spurred innovation in agriculture and enabled the country to become a major contributor to the global food, fiber, and biofuels economies" (National Research Council 1). In 2017, the US Department of Agriculture budgeted "A total of \$2.9 billion for agricultural research and related activities" ((US Department of Agriculture 4). The Federal Government of Nigeria appropriated \$\frac{1}{2} 76,753,672,275 (or \$213,798,560.44) for agricultural research and development purposes in 2016 (Federal Government of Nigeria 2016). Investment in research and development (R&D) has been an important policy instrument for many governments. The governments of the United States and Nigeria prioritize research as the key driver of their agricultural sectors.

China is an outstanding example. In the years before the 1970s, the Chinese economy was in decline. China reversed the situation by modernizing its agriculture through research. Around 1978, the country began encouraging "experimentation in its science and technology (S&T) system as a means of arriving at reforms" (China International Development Research Center 3). The investments have led to creative methods of approaching complex set of national issues, and have also resulted in making decisions, formulating policies, and planning strategies that are based on facts and evidence. Today, China has improved its agricultural sector.

8.5.2 Development of Metrics.

One of the problems with the old development strategy is the lack of clear data and a defined way to manage the development process. Data is needed for decision-making purposes. Data must be generated at all levels of the sector including at the private and public levels. Antl et al. advise that "data would be generated and used at the farm-level, others would be generated and used for landscape-scale analysis to support investment decision-making and science-based policy-making" (73). The private sector data would include, for example, farm-specific characteristics of the land and farm operations, and the site- and farm-specific management decisions. Accordingly, the data can be used to evaluate the farm's biophysical, economic, and environmental performance. Public data, would include weather, climate, soils, and other physical data describing a specific location, as well as prices and other publicly available economic data (Antl et al. 78).

Data is important part of the process of agricultural development. It is also important for development of knowledge and infrastructure. For these reasons, I propose here that special considerations be given to the process of collecting and managing data. Thoughtful attention is needed regarding the types of data to be collected. Moreover, care should also be taken to ensure that development data is managed properly and used efficiently and securely. This way, continual monitoring and reporting of the performance is made available to stakeholders as well as to the public.

At the same time, the effects of agriculture on the lives of ordinary people as well as the larger economy must be measured. Measurement allows for improvement. The agricultural sector will not improve if its performance is not measured. Lynch and Walls warn program designers, "If you're going to claim progress—and you must, for many reasons—you must be

clear, from the outset, about what you really want to have happen in the world because of the existence of your enterprise" (32). At the design stage of the development process, effort should be made to develop the proper metrics that will be used to measure progress. In this regard, PASL calls for the definition, collection, organization, and effective use of development data. The appropriate metrics must also be developed to measure the impacts of the agriculture sector. I like to conclude by clarifying that research is an expensive process that requires enormous resources and funding. To overcome this challenge, local and national resources should be mobilized and invested in the process. Also, effort should be made to engage the US Agency for International Development (USAID), the World Bank, and the United Nations Development Program (UNDP) for support.

8.6 Continual Calibration of Model. To rely on the PASL model, it is important to maintain its integrity by keeping it relevant and current as conditions change. Agriculture is a fast-growing field; technologies change rapidly, new ideas emerge daily, and new approaches are needed to cope with changing environmental conditions. An important aspect of the recalibration of this model is to make it relevant to what is needed at any given point. To ensure this, it is useful to reassess this model during a large gathering of agricultural stakeholders. The procedure for performance evaluation of the model includes the following five steps: (i) (re)assessment of the model's aim, scale and scope; (ii) characterization of the data for calibration and testing; (iii) visual and other analysis to detect poorly or non-modeled behavior and to gain an overview of overall performance; (iv) selection of basic performance criteria; and (v) consideration of more advanced methods to handle problems such as systematic divergence between modeled and observed values (Antl et al). It is suggested here that an annual gathering of stakeholders be held

periodically to ascertain progress and make improvements so as to ensure the model is effective and reliable in achieving agricultural development goals.

9. The Drivers of Agricultural Development Process in Liberia

Developing the agriculture of Liberia requires a cross sectorial approach. The strategies have to be holistic and integrated so as not to leave a loophole that impedes future progress. The model calls for the traditional food culture of the country to be modernized in ways that support the development of modern agriculture. Additionally, institutions and policies should be reorganized or reformed, so they can respond to the growing capacities of agricultural productivity. Furthermore, the market needs to be organized and liberalized to encourage free participation. These drivers will increase investment in agricultural research and development and improve the sector.

9.1 Institutions and Policies. Effective agricultural development policies and strong institutions will drive strong growth and development. Policies and institutions are not mutually exclusive in strategic planning and development. The two are critical because strong policies can only be implemented through strong institutional framework, and vice versa. As stated above, the combined effects of weak institutions and poor policies have undermined agricultural development efforts in Liberia. To fix the problem, it is important to address the policies and institutional problems affecting agricultural development.

9.1.1 Reform/Establish New Institutions.

In agricultural development, as in any other economic sector, the role of institutions is critical. If agricultural development strategies are to succeed, there must be strong public and private institutions to support them. Institutions in the development of agriculture are important because, as Huylenbroeck et al. conclude, "agriculture is indeed a complex sector with important societal implications (food and amenities supply) embedded within a broader rural system" (3). To paraphrase them, agriculture sector is a complex one, with numerous subsectors. It is also a multi-agent sector with a complex chain of inputs, intermediaries and output markets. Because of all these, as well as its implications on society, agricultural development requires institutions. Thus, Liberian agricultural development strategies need to place strong emphasis on reforming old institutions and establishing new ones in order to support policy implementation, market and supply chain organization, and management of natural resources and rural systems.

The role of the Center for Agricultural Research Institute (CARI), the main agricultural research institution in the country, needs to be redefined to include research in agricultural and food products, agricultural policy formulation, agricultural market research and liberalization, etc. The extension office at the Ministry of Agriculture must become autonomous so as to function more freely and effectively. In the same way, it is time to privatize the Liberian Produce Marketing Company. This can be done by turning the company over to a Liberian-own private marketing company. This way, agricultural development strategies will be driven by both the public and private sectors, which means there will be no monopolizing of the sector by government. Such a free market environment will nurture sustainable grassroots economic growth throughout the country.

Financial institutions will also play a major role in developing Liberia's agriculture.

Factories and producers are constantly in need of financial and material supports. Access to credit investments has been a major challenge. Banks do not feel confident to lend money because most agribusinesses do not have the full capacities and management qualifications. To address this problem, new financial institutions must be established not only to loan out money, but to also build the capacities of enterprises in areas such as business development and management, marketing, investments, and so on. The establishment of agricultural institutions will play a major role in transforming the capacities of actors of agricultural development.

9.1.2 Policies

Earlier in this document, one of the key questions of this argument was, "How do government policies affect Liberia's agriculture sector? The basis of this question is the simple fact that policies play a major role in any economy. In the case of Liberia, policies failures have been some of the factors that have caused poor productivity as well as poor performance of the agriculture sector. As in the past, government policies issues are still hampering the sector. To solve the problem, PASL model argues for, and supports, the concept of "Food Self-sufficiency as the driver of food security. This approach will not only help to make food available, it supports sustainable livelihoods and long term economic growth because it empowers citizens to recognize, mobilize, and utilize their own agricultural assets and resources. It will also empower citizens to not be vulnerable consumers of food but also resilient producers and suppliers of what they consume.

9.2 Investments to Develop Agriculture. The first step to developing the food and agriculture sectors of Liberia is investment in research. The PASL model strongly suggests that enough

money be invested in research. Instead of spending \$20 million on food subsidies, double the amount and spend on agricultural development annually. Particularly, investment is needed to develop institutions, plan and implement policies, and to develop infrastructures. Investment is also needed to improve trade or markets and to provide credits to farmers as well as provide subsidy to local production and processing of agricultural products. Annual investments will develop the food and agriculture sectors of Liberia. Investment is also needed in labor development and organization. Labor is considered one of the critical factors of production. Currently, although the agriculture sector provides sustenance for people in the country, a majority of workers are unskilled. Furthermore, there is a disconnect between young educated people and the farmers. This has been responsible for low productivity and rural poverty. Also, the lack of modernized methods of production is a major challenge. Moreover, family farm productivity is low, which presents another reason to take a different approach to labor force development. Ricardo Acosta argues that "the equilibrium in the family farm is not in the relationship between the family demand and the drudgery of labor, but between the household consumption needs and the low entropy energy inputs available in the eco enclave which have value for man's livelihood" (R. Acosta 40) Acosta went on to clarify that energy from the agroecosystem and the natural ecosystem serve to balance the equilibrium between production and consumption.

Another way to analyze the problem is to draw on the Russian example of the period between 1861 and 1920s. At the time, Russian farmers faced similar problems as the ones being faced by Liberian farmers today. To solve these problems, the Russian citizens took on direct national action, "hundreds upon hundreds of college students, doctors, nurses, university teachers – including economists and statisticians, quit their urban and attempted to go to the people"

(Thorner 9). To overcome the problem of poor labor organization, the model requires that all Liberians, regardless of where they may reside in the world, should take a direct action by joining the new agricultural development effort. At the same time, the planners of agricultural development must take steps to organize all farmers, processors, traders, and all other stakeholders. Farmers within political subdivisions of the country must be connected to each other so as to share knowledge and resource. The youth, women, elderly, and able body laborers with expertise in various aspects of agriculture should be mobilized, organized, and empowered to take on national assignment. In other words, PASL calls for national action to address the Liberia's agricultural problems.

- **9.3 Production Organization and Sub-Sectors Development.** To develop and foster a robust agricultural economy, PASL maintains that the entire agricultural productivity effort needs to be restructured and reorganized properly. It is proposed here that productivity be organized into eight subsectors. These categories include, Commercial (or industrial) Agriculture, Cash Crop, the Food, the Fruits, Flower & Vegetable, the Birds, Fishery, the Ranching, and the Wine. These subsectors are further broken down into the following for specific attention:
 - The Commercial and Industrial Agriculture subsector includes rubber, forestry, coconut, and palm oil;
 - The Cash Crop Subsector includes cocoa, coffee, and sugar cane;
 - The Food Subsector includes rice, cassava, yam, eddo, corn, potato, and plantains;
 - The Fruits, Flower & Vegetable Subsector includes banana, ranges, grape fruits, plum, vegetables, bread fruits, pears, and lime;
 - The Bird Subsector includes country chicken, poultry Chicken;

- The Ranching Subsector in goats (Indo Brasile), sheep, cattle, pigs;
- The Fishery Subsector includes cold water fishing, aquaculture, and canoe and deep ocean fishing); and,
- The Wine Subsector includes palm wine, pesewas wine, fruit juice, and cane juice, and liquor.

The productivity development is organized into these categories for several reasons. Organizing productivity into these eight subsectors will ensure close attention and proper planning that is uniquely needed for each of the subsectors and will make it easier for straight forward development strategies and policies. This will also ensure that policies are formulated and implemented in direct response to specific subsector rather than use one policy to address subsectors. The items in each of these categories form the buck of Liberia's agricultural import products. In its 2016 report, the Ministry of Commerce and Industrialization of Liberia listed rubber, cocoa beans, coffee, rice, cassava, palm oil, and fish as "key agricultural products". In the same year, "rubber, cocoa, gold, and palm oil" topped the list of key export commodities. In the same year "rice, other foodstuff, and cooking oil" were among the key import commodities (Ministry of Commerce & Industry 6). Since these agricultural commodities are already important on the Liberian market, developing them will boost support to Liberian market.

9.4 Market Organization. Improving the functioning of agricultural markets will boost productivity and promote trade. Currently, the Liberian markets are largely dominated by the government and multinational corporations. As a result, the markets are mostly focused on exports. Major cash crops such as cocoa, coffee oil palm, etc., are all exclusively targeted at international markets (Ministry of Commerce & Industry 2014) Also, fish and crustaceans are

mostly marketed as exports. According to the Ministry of Commerce and Industry, in 2016, the export market of cocoa brought in \$ 12.4million; oil palm \$2.1million; fish \$200,000, and coffee \$500,000(Ministry of Commerce & Industry 2016). Nevertheless, overall, agricultural trade has been slow. This led to slow growth and has resulted in national food shortage because the market is not focused on local consumption.

The main reason for slow growth and poor performance is the poor organization of the market. The systems of producing and marketing agricultural products is described as a "chain system" (Talbot). This chain system is organized around various labor forces or agents, including, "producer, primary processer/middle person, exporter, international trader, industrial processer, wholesaler, retailer and consumer" (Daviron et al.2). The division of labor supposes the existence of market transactions between each of these agents. In other words, each division of labor has to be considered a market in itself. The proper organization of the agricultural markets in Liberia will result in organized trade and fast growth.

9.4.1 Local market

PASL proposes a localized consumption-focused market as the foundation for an international market. This is because only very few actors benefit whenever goods are taken directly from the farms and exported without impacting the local economy. The needs and wants of local people are not satisfied through this means. PASL is based on the belief that an agriculture market involving many local people, where the homogeneous product is not only produced by local farmers but also sold to and by many local produce sellers, will create a perfect competitive market. With many local people producing and selling to each other, the price of agricultural

commodities will be determined by the law of supply and demand, and not by conditions created by government and regulations.

9.4.2 Liberalized Market.

To open the agriculture markets in Liberia to international trade will lead to many economic opportunities. At the same time, it must be acknowledged that liberalized markets have their own advantages and disadvantages for local people. Access to market has been an issue on the global stage. Ingco and Nash identified several of the issues, ranging from tariffs escalation to product regulations and international restrictions (64). Market access and other problems such as competition, advanced technologies, and market automation may pose serious challenges to Liberian farmers. Farmers and buyers from advanced countries often have so many advantages over their counterparts from developing countries. When the competitive advantage is taken from local people, it leads to low morale and enthusiasm to continue in the market. Furthermore, reducing government dominance will open the market to the private sector. The participation of private businesses, especially small enterprises, will help to not only maximize the benefits of local agricultural products, but also set the foundation for grassroots national development at various levels of the economy. Although agriculture is the foundation of the national economy, its benefits cannot be maximized and spread across stakeholders when the market is not organized and liberalized in a way that ensures everyone's participation.

Therefore, PASL believes that the initial point to market liberalization is, first, organizing local agricultural markets and stakeholders, and empowering them with the tools and resources that will give them the competitive advantage both in their own market and in the international market. The empowerment includes knowledge of how the international market works, product

quality, agribusiness management, etc. The resources could include agricultural equipment and tools, credits, technologies, etc.

9.5 Middlemen and Market-led Extension. Many have argued that the agriculture sector of Liberia is not affecting lives the way it should because the current market is a linear relationship involving the producers and sellers. This kind of market causes losses on the part of both parties due to so many factors including pressure to sell or buy, lack of knowledge of the actual quality, quantity, and value. Therefore, PASL is suggesting that two institutional infrastructures be included in the market. These are agricultural market middlemen and market-led extension.

9.5.1 Agriculture Middlemen.

The middlemen are licensed individuals or firms that help customers to find the agricultural produce that they need, as well as help suppliers find the customers to buy their goods. This way, the middlemen explain the qualities, benefits, and specific features of agricultural produce or products to customers. The information provided by the middlemen will save the customers time and money and ensures reliability. Middlemen will also solve the problem of lack of information on where to locate suppliers or customers. They will also pass on information regarding changing prices, etc.

9.5.2 Market-led extensions

To avoid losses, knowing what to produce and sell is very important for farmers and producers. PASL believes that market-led extension individuals or agencies will enrich their knowledge, create awareness, and improve the skills of all those involved with the agriculture

sector. Unlike the middlemen who deal with products that are prepared and ready to go, the extension will provide information on how to get the produce ready, and who is playing what role in the process. This includes spreading information about classifying or grading, "standardization, packaging, labelling, storage, transportation, market information, wholesaling, retailing and modern tools of marketing such as contract farming, terminal markets, futures markets etc." (MANAGE). This level of information sharing will address many issues including poor marketing.

9.6 Transportation system. Transportation has been a major factor in the effort to develop agriculture. The road systems in Liberia are poor and the roads themselves are bad. During rainy seasons, parts of the country are cut off from each other, making it very difficult to move agricultural produce from one part of the country to another. PASL recognizes that the only way to overcome this problem is to construct more farm-to-market roads, and construct train tracks that can be used for public transportation. Additionally, the track system can also be reorganized so that public trains will share tracks with commercial trains, especially the ones owned and operated by iron ore companies.

While waiting on the national government, it is imperative for local entrepreneurs to seek financial investment to establish their own local transport systems. During the rainy season for example, the various local transport systems could coordinate with each other to move agricultural goods across damaged roads. One way to implement this transportation system is to assign the vehicles to special routes. There could be vans and mini trucks that transport produce between villages, towns, districts, counties, and cities. This way, each transportation company is responsible for an assigned area.

9.7 Communications systems. Market linkages and connectivity are essential. There is a great need to improve communication among growers, processors, consumers, traders and all stakeholders. National and international linkages through daily communications are also very important. People need to know the fluctuating prices of agricultural commodities on the local international markets. Information about new agricultural research and changing weather conditions, to name just two examples, needs to be communicated. PASL proposes an integrated information system be established to promote awareness across the market. This like the Amber Alert system in system could be designed like the AMBER alert system in the USA.

10. Sustainable Livelihood Capitals Development

Community based assets are great, but they by themselves, cannot be turned into wealth or development. There must be transforming processes and structures that turn them into outcomes so as to impact the lives of communities and people. Drawing on the Sustainable Livelihoods Framework of the British Department for International Development (DFID), PASL endorses sustainable capitals development as a tool to increase the capacities of agricultural stakeholders and developers in Liberia. By developing livelihood capitals, the agricultural sector will be transformed into a more effective sector. It will also help to create jobs and increase local and national developments. Sustainable capitals development will improve the general living standards of Liberians. PASL has identified six capitals to be developed in order to support the structures and processes of agricultural development. Five of these are were adopted from the DFID's Sustainable Livelihoods Framework. They include: human capital, physical capital,

economic or financial capital, social capital, and natural capital (Morse et al. 5). In the same way, cultural capital was adopted from the work of Nyamekye and Mawere (3).

10.1 Cultural Capital and Human Capital. At the bottom and top of PASL's sustainable assets ladder are cultural capital and human capital respectively. These two capitals are crucial to the development of agriculture in Liberia. Cultural capital forms the foundation of the PASL model because it informs the way of life of the people. Cultural capital refers to the skills, tastes, posture, clothing, and mannerisms. It also refers to material belongings and credentials. Cultural capital is an important part of development in Liberia and throughout Africa. As Awuah-Nyamekye and Mawere explain, "In Africa, 'traditional' or local knowledge is strongly linked to local culture and past experiences" (3). They argue that cultural capital forms the basic component of society and its sustainability. In other words, cultural capital is the basis for diversity to be recognized in knowledge production and advancement. On the other hand, human capital includes skills, knowledge, labor (including good health and physical capability). PASL is constructed with the belief that human capital leads and transforms the process of developing agriculture. The combined elements of the way of life and the capacity of the people, when developed properly, will transform and sustain the agricultural development in Liberia.

10.2 Social and physical capitals. Interactions among the various stakeholders of agriculture is vital to the process of developing the sector. Social capital includes social resources; that is, networks, social claims, social relations, affiliations, and associations. The agricultural development process need not isolate the social capital of the people. Rather, it must be developed to support the process. At the same time, physical infrastructures are needed in

everything that is related to agriculture because the sector depends heavily on it. The process to develop agriculture must also develop the infrastructures (buildings, roads), production equipment, and technologies that are needed.

10.3 Natural Capital and Economic and Financial Capital. These two concepts form the core of PASL. Natural capital refers to natural resource stocks; that is soil, water, air, genetic resources etc. It also includes environmental services (hydrological cycle, pollution sinks etc.). All of these must be considered and included in the process of developing agriculture. Finally, nothing substantial can be done to develop agriculture without financial capital. This capital refers to capital base; that is, cash, credit/debt, savings, and other economic assets. Economic and financial capital must be developed with the community and people being at the center of it all. The financial empowerment of private sector and grassroots local business needs to be the prime objective of economic and financial capital development.

11. How PASL Works

- **11.1 PASL's 5-step Cycle**. Bringing together its elements, including its theoretical and conceptual frameworks, the drivers of agricultural productivity and the sustainable capital development, PASL works in a simple five-step Cycle that includes the followings:
 - Formulation of Framework of Action;
 - Prioritization of Agricultural Development Actions, Programs, and Business Activities;
 - Execution of Prioritized Actions, Using Elements of PASL;
 - Evaluation, Readjustment & New Cycle; and, Preconvention Preparation; and,
 - Preconvention Preparation

11.2 Formulation of Framework of Action. The Cycle starts with the formulation of a national or local conference. At this gathering, participants discuss and define problems, needs, and improvements relating to the development of agriculture. Through the discussion, institutions are setup to facilitate, monitor, and evaluate the process. These establishments may include groups such as bureaus, organizations, or a simple committee. Each of these are assigned specific issues to work on during the Cycle.

The other task is to identify available assets and opportunities within a community. All participants look within their communities to come up with a list of all their resources, relations, institutions, and anything that can be utilized to contribute to agricultural development.

Preferably, participants must collect this information ahead of attending the conference.

Participants from the same location may collate their lists into a master list for the sake of time during presentation. At the same time, resources must be mapped out in ways that they can be located. Clear location of available resources will inform the planning process. For example, it will help planners to know where to grow certain crops or where to establish certain market, and so on.

The main function of the convention is to formulate a simple outline of the key actions agreed upon by the various stakeholders. For example, participants may identify rice production and set a target of producing 1000 tons of rice in one year or 5,000 tons in five years. A road map to solve a certain issue is defined when the issue is identified, and a goal and timeframe are set. The convention may identify simple issues to be addressed and formulate them into an outline. This way, everybody will have a general sense of direction.

Once an outline is developed, the conventioneers then go on to secure the commitments of all stakeholders including business people, local or national government, religious groups,

civil society organizations, women and youth groups, members of other sectors of the economy, and other concerned institutions. Information about the framework is disseminated to the rest of the country through the media, dispatch of the document to major stakeholders, outreach to communities, workshops seminars for institutions and individuals, and any other means possible to reach as many people as possible.

PASL was designed with the understanding that high rate of illiteracy is one of the hindrances to development in Liberia. High levels of illiteracy come with communication barriers which often result in comprehension problems. To overcome these challenges, it is important that there be interpreters and translators who will explain key difficult information during, before, doing, and after every conference. Information sharing and knowledge increase will be enhanced through clear translation and education.

11.3 Prioritization of Agricultural Development Actions, Programs, and Business

Activities. All actions are aligned with the approved framework of action. From the framework of action, specific programs, projects, businesses, policies, infrastructures, etc. are drawn out, developed, and undertaken. PASL requires that actions are developed into proposals with clear and concise goals, objectives, and activities. The proposals must also define resources needed to undertake the actions, the expected outputs, and must articulate the desired outcomes and impacts. The metrics of measurement of both the financial and social outcomes, as well as the impacts, must be developed and made available for internal and external purposes.

11.4 Execution of Prioritized Actions. Using elements of PASL, plans and proposals are executed based on the concepts of the model. Execution or implementation must be done in line

with ethical principles including trustworthiness, transparency as well as personal and institutional accountability. All financial transactions must be carried out using the generally accepted accounting principles (GAAP). At the same time, employability must be based on equal opportunity and salaries are dependent on qualifications and level of skills or the amount of what done. The PASL Model requires high level of excellence in all aspects of implementation, but especially financial accountability is crucial and must be demonstrated at all levels and at all time.

11.5. Evaluation, Re/adjustment, and New Cycle. At the national or local conference, a monitoring and evaluation (M&E) Team is appointed as one of the institutions. The team must develop its own evaluation plans or request every proposal to be detailed and well written with clear goals and plan of how finances and plans will be implemented. Using the evaluation plans, the team should, from time to time, collect data on the performance and outcomes of all activities that will be carried out under the framework. The team evaluates all actions and grades them by given defined scores. The scores are based on a scale of one to ten. The evaluation team and other institutions that will be setup by the convention will serve to facilitate the process of developing agriculture. These institutions ensure that the plans of the convention are carried out, the standards are adhered to and followed, and that future material or financial support to any member of the convention is based on the score that that member has achieved through its performance.

11.6 Preconvention Preparation. Attending an annual convention is an important requirement of the model because the outcomes of the convention decides the road map for all actions.

Participation is based on representation since it is not possible for all the tens of thousands of agricultural stakeholders in the country to converge at single convention. At the same time, it is important to include every one of them by through representation. Preconvention preparations happen in order to have delegates prepared themselves so as to properly represent the aspirations of their constituencies. Therefore, before delegates come to the convention, they must have their own preparatory conventions or meetings. During these gatherings, local agricultural stakeholders put forward and discuss their own reports. These reports include their achievements and challenges for the year and define new vision to be presented and argued at the national convention. Each local convention is at liberty to identify its own theme, issues, and to elect its own delegation to be sent to the convention. However, the number of delegates is decided at the annual convention, not the local one. In other words, the preconvention preparation allows various regional groups to prepare themselves for the convention and to select qualifies delegates to represent them.

Finally, let it be known that this model is by no means a national agricultural development tool; rather, it is to be used to prepare and empower local people to contribute to grassroots and national level agricultural development. It is expected that the meticulous application of all the components and elements of this model will contribute to the process of fixing the problems affecting Liberia's agriculture sector.

11. Conclusion

This study has provided significant detailed understanding of the state of the process to develop the agricultural sector of Liberia. Two kinds of issues were revealed: top level and grassroots level. The top-level centers around government's control, monopoly, and poor

programing which focus on short-term strategies, and its failure to incorporate agriculture into the mainstream of the national economic strategies. As for the grassroots level, local agricultural enterprises do not have sufficient infrastructures and adequate capacity to support agricultural development. These revelations are significant because they confirm the long-held belief that the issues that have stagnated the development of agriculture in Liberia were multidimensional, complex, and latent in nature.

The study has raised several important questions. These questions include: What has hindered the programmers of the agricultural development process from recognizing these issues? Why haven't they made any effort to rigorously define these issues and their causes? Now that the issues have been defined through this study, what needs to be done to bring this knowledge to the fore and to mobilize both top and level grassroots actors to work together to solve the problems? What further information do we need to know about these issues as we apply the PASL Model?

Agriculture, when developed properly, could the heart of the Liberian economy. A developed agriculture sector will lead to food self-sufficiency, better paying jobs, and a robust economy that supports the reconstruction of the country. The Bridging the Gap Between People and their Assets to Support Sustainable Livelihoods (PASL) model provides a conceptual framework and applies a simple step-by-step approach to developing agriculture from the inside out, rather than a set of imported ideas. It is vitally important that the PASL model is adopted and supported by both top level and grassroots people in Liberia. It is hope that the model will help to empower poor farmers like my grandfather so they can become active agents who will maximize the full economic potential of agriculture in Liberia.

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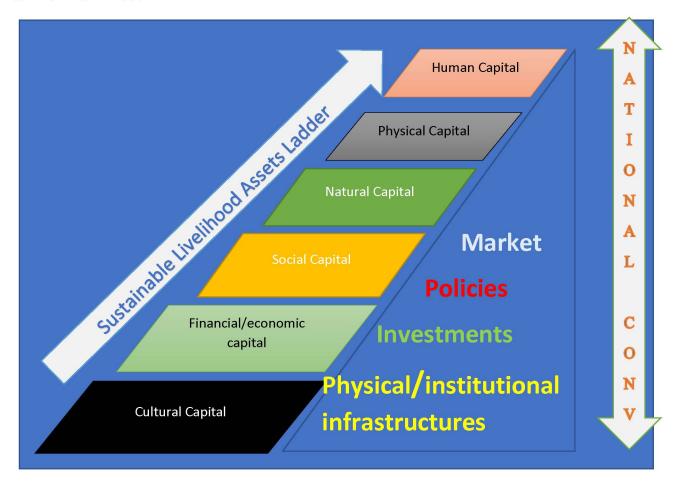
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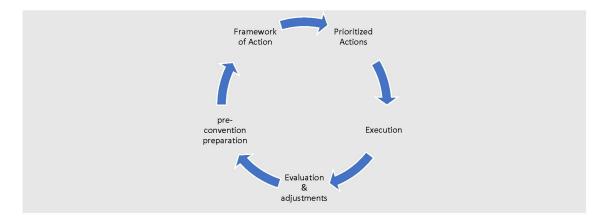
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14. Appendix

14a. The PASL Model

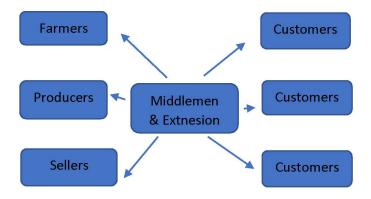


Graphic Description of the PASL: The sustainable capitals are the building block of the model. Its drivers include the markets, policies, investments, and physical and institutional infrastructures. The model is implemented through a five-step Cycle that begins with an ANNUAL CONVENTION of all stakeholders of agriculture in Liberia.



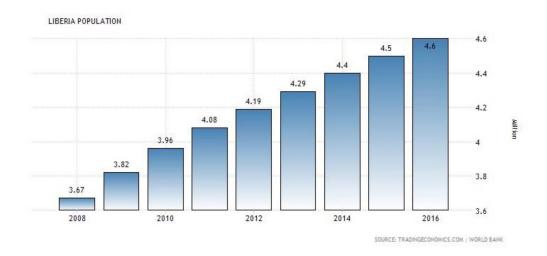
Note: The model is implemented through a five-step Cycle. There is not golden rule as to that step to start with. A group can start at any point on the Cycle depending on the group's capacity. However, it is advisable to start with the preconvention step.

14c. Middlemen and Market-led Extension



Middlemen and Market-led extension groups bring together farmers, producers, and sellers, and put them in touch with customers. These two groups promote trade through sharing information about agricultural commodities, the price, market, research, and any information that promotes the agricultural development process.

14d. Liberia's Population Growth Chart



Note: The focus of PASL is the people, therefore, any group that plans to use the model in Liberia needs to be aware of the fast pace at which the country's population is growing. For example, during the period between 2008 and 2016 the country population grew by nearly ten percent.

14e. PASL's Testing Questions

- 1. Did the facilitators explain the purpose, scope, components, and concepts of PASL?
- 2. Was the convention held in a safe space (where everyone could talk freely without fear or intimidation)?
- 3. Did the facilitators work with participants to set goals, map out the resources within the community?
- 4. Was food and refreshment provided?
- 5. Did the facilitating groups prepare beforehand? (Questionnaires, icebreakers, teaching materials, equipment, etc)
- 6. Did the facilitators decide on the facilitation or research methods, approach, etc, at least one month before the event?

- 7. Did majority of the stakeholders attend?
- 8. Did the organizers record the convention or meeting proceedings?
- 9. Is there any action plan?
- 10. Was there any group that was formed at the convention?
- 11. Is there anything that was left out?

14f. Fieldwork (Methodologies/Approaches and Detail findings of the Mapping team)

Methods and Approaches: The findings and conclusions were based on a 47-day mapping exercise that was conducted in the months of August and September of 2017. Three key approaches were applied: informant interview, appreciative inquiry (AI), and working sessions. During the working sessions, two group processing methods - Open Space (OS) Technology and World Cafe (WC) - were used consistently throughout. OS was used to plan and develop agendas for discussions while WC was used to work out the details of ideas. Open Space technology is a methodological tool that enables self-organizing groups of various sizes to deal with complex issues in a very short period. During working sessions, there was only one question but no agendas. The approach was meant to allow the participants to take ownership of any outcomes from the working sessions. Accordingly, the mapping team only announced the starting and end time of each session and used the Open Space method to enable participants to formulate their own agendas.

Each working session began by organizing participants into a big Cycle. In the middle of the Cycle, I (the facilitator) placed a big poster with the question, "How can we establish business relationships and build market linkages among agribusinesses?" I was assisted in my role as the facilitator by two people. Each of them wrote down the responses of the participants.

The responses were organized into themes based on similarities and subsequently drawn up into agendas through deliberative and collaborative interactions of the participants.

Furthermore, the OS method was used because of the nuanced nature of the sessions. The sessions were distinctive because this was the first time LFA-supported enterprises from all clusters came together to discuss the question of formulating strategies to forge common business relationships and market linkages. It is often challenging for participants to discuss freely in a setting where they are meeting for the first time and do not know each other, especially when the issues on the table for discussion are large and complex. Technically, the OS method was used to offset participants' nervousness by removing the fear of ambiguity and engendering the spirits of collaborative participation and mutual respect by means of breaking down and neutralizing barriers.

The other method used to facilitate the working session was the World Café (WC). This method is an easy process that fosters collaborative dialogues, knowledge sharing, and discovery of new solutions and opportunities for action amidst complex problems such as the ones confronting LFA's agribusiness enterprises. The key strength of WC is its innovative way of creating dynamic networks of conversations. During the working sessions, participants were split up into groups and formed into smaller Cycles based on the number of agendas derived from the larger Cycle of the session. If there were five agendas from the larger Cycle during the OS, there would be five smaller Cycles during the WC. Members of Cycles were moved around periodically, allowing new ideas to emerge through group interactions. Through collective brainstorms, participants were able to define problems, derive solutions, and create action plans. A final step at the meeting was the use of participatory democracy to organize a leadership network and to appoint interim leaders.

Finally, for consistency, all of the enterprises were asked similar questions because the focus was on three key areas unique to each of them. The goal was to determine their strengths, opportunities, weaknesses and challenges. Three of the 54 questions centered on business relationships and market linkages, organizational achievements, and what needs to be done in order to attract both public and private sectors investments.

Interview Questions. Before the exercises began, a total of 40 indirect interview questions and engagement activities were initially planned with the inputs of 3 senior staff members of LFA. In the name of inclusivity and creativity, and in recognition of the cultural diversity and sensitivity within the various communities (as well as county-specific management realities), the mapping tools were occasionally discussed, refined, and updated by county offices and the mapping team to reflect the needs of all.

The mapping team met with county coordinators and their staff and further analyzed and planned the exercise to reflect the needs and aspirations of their communities. During these planning meetings, which involved all county staffs including the M&E as well as field staff, every aspect of the exercise was scrutinized, analyzed, and adjusted when necessary. Not much was taken from the initial questions, but more additions were made to the questions to reflect reality. By the time the exercises started, a total of 54 questions were developed, which included structured, semi-structured, and open-ended questions.

The mapping team reached out to farmers, aggregators, processors, and other agricultural workers, in cities, towns, and villages across the operational counties. During outreach, the mapping team and the informants would sit in a Cycle, allowing everyone in the discussion to see each other and to discuss freely. No question was posed to informants unless we had made

personal, quick connections with them through talking about topics not related to the interview.

The strategy was to start some form of initial personal connection before diving into the business of interviewing.

Furthermore, the interview questions themselves were inviting. Each of the 54 questions started with the phrases, "could you tell us about...? "Do you mind clarifying this or that....?" That method allowed the informants to share their stories rather than just answer factual questions. Also, by leaving the questions open, the informants were able to speak freely and by doing so provided other answers that we would not have otherwise known.

After an interview session, members of the mapping team had their own field meeting to reflect, debrief, and further analyze the information that was gathered from the interview. At the reflective meetings, mapping team members gave their own impressions of the interview and clarified some contextual issues. For example, the mapping team met a group in lower and remote part of Lofa. During an interview with the group, they talked about transportation as being one of their major issues. When we came to Salala, which is located in a different county, we met with a group that is just about 20 feet away from the major highway. Like the Lofa group, this group also talked about transportation as being its major challenge. The mapping team was surprised at how a group that is so close to a major highway could have the same complaints about transportation as the group that is in lower Lofa, where there are no good roads. However, through group processing and contextualization, we realized that transportation meant different things to the two groups. The group in Lofa was complaining about the lack of commercial or public transport or any passenger vehicle that they could pay to transport their goods to nearby markets. But the group in Bong, the one that is so close to the shoulders of the major highway, was not talking about commercial vehicles; rather, it was talking about owning

vehicles for itself, t ones that the group would own and use privately to transport its goods to markets as well as its members from one place to another. The reflective meetings, information processing, and contextualization helped the mapping team to give deeper meanings to and more clear interpretations of, as well as to appreciate, stories that were shared by members of the enterprises.

Additionally, in areas where there were no data available on certain key commodities, the mapping team went around to find out current local prices. For example, a majority of the enterprises did not know the financial worth of their businesses. To find out an estimated financial worth of the business asset and capital, the team went around asking for local prices of the items that enterprises own. These items included, for example, cement, concrete blocks, blanks, other building materials as well as the local price for a plot of land. We then calculated the prices of the items to derive estimated assets.

In regards to the financial worth of farms, especially cocoa farms, we asked informants who represented cocoa cooperatives to share how many members they had, the number of tars each member had on their farms, and the age of the cocoa trees, to share how many members they had, the number of tars each member had on their farms, and the age of the cocoa trees. Once the information was obtained, we then proceeded to determine the worth of each farm by calculating the number of cocoa trees by the prices provided by the villages. There were no standard prices for a cocoa tree. However, the prices of cocoa trees were determined based on the community's past experiences with companies that compensated farm owners for their trees in order to take over a piece of their land for commercial purposes. The rough calculations were used to derive estimated financial worth of each cooperative.

It is important to clarify that the reason for the exercise was not to determine the realistic financial worth of businesses because we recognized that the method used was faulty. Rather, there were two reasons: first, the exercise was meant to allow the enterprises to experience the process of determining the worth of their businesses, and second, it was meant to let them know the importance of knowing the financial worth of their businesses.

Key Focus. The three key areas of focus in the mapping exercise included institutional histories and structures, operational and management capacities, and basic needs of all the farmers, aggregators, processors, and others:

- Institutional Histories and Structures This segment accounts for the entity name, type, location, formation date, registration date, contact, membership, leadership, and legitimacy.
- Operational and Management Capacities: This segment detailed the operations of the enterprises including products/crops, resources, capacity, accounting systems, financial statement (B/S, I/S & CF/S), and the net worth of the business and achievement.
- Basic Needs This portion highlighted the needs of enterprises considering sales, processing and capacity building.

These issues can be categorized into organizational, management and operational, and logistical.

Taken together, the informant interviews, appreciative inquiry, and working sessions were all effective. The informant interviews provided the quantitative data necessary to gain an understanding of the challenges faced by the enterprises in relation to institutional, operational, and management, all of which are very important for decision-making purposes. The appreciative inquiry and the working sessions provided information necessary for the descriptive

analysis of the social and psychological emotions that are deeply embedded within each institution, which is also crucial for building business relationships and market linkages.

The information presented in the report to LFA was been supplemented by brief or casual interactions with other organizations that work in LFA operational areas. The interactions were focused on the past support activities that the institutions provided to some of the enterprises being supported by LFA. I would like to point out that the interactions were meant to gain casual historical perspectives on the enterprises' attitudes and aspirations, and whether there would be any potential bearing on LFA's support to them.

Discussion of Findings and Results

Interview and Summary Findings: The team worked from August 7 to September 23, 2017 and mapped out forty agribusiness enterprises including processors, aggregators, and producers/farmers. As stated, the data gathered from the enterprises focused on the enterprises' organizational structures and histories. Operational and management capacities, as well as their basic needs, were looked at carefully. The exercise investigated the memberships of the enterprises, leadership structures, histories, business relationships and market linkages, etc., amongst farm-level aggregation enterprises and producers. The mapping exercise also took a closer look at their achievements and operations as well as management challenges. The exercise concluded with the formation of an agribusiness network in each of the respective four counties to promote aggregation clustering and market linkages.

Organizations: Memberships and Leaderships: The forty enterprises that were engaged have the memberships of approximately 12,560. Females dominate the memberships with 54%, with

males at 46%. Mothers dominate the female category with 42% and other females constitute 13%. Older males dominate the male category with 53%, while young males constitute 47%. The youth constitute 46% of the total memberships. Females dominate the youth category with 52%, while the male youth population is 48%. Of the total memberships, female and male youths constitute 24% and 22% respectively.

Structures: The lack of organizational structures was one of the challenges discovered. Thirty-three (or 83%) of the enterprises mapped reported choosing their leaders through elections. Only six appoint their management through a board of directors. One organization reported it has no knowledge of whether its leaders are appointed or elected. Those organizations that choose their leaders through elections are headed by either presidents or chairpersons. These leaders are mostly elected and given authority to lead their groups like a political entity.

Leadership/Management Structures: From what was discovered, the emphasis was placed on exercising authority rather than managing their groups' resources and plans. Also, because each official is elected, the idea of administrative and functional accountability seems to be limited to leaders being able to manipulate a few loyal members. To be blunt, accountability is weak because political considerations, rather than management principles, are used in group leadership. It is the conclusion of the findings that a group leader with serious administrative problems would not really be held accountable if they can protect their position through political maneuvering.

In addition to leadership problems, it was observed that a majority of the enterprises did not have mission and vision. Of the forty enterprises, only four (10%) had a mission and vision statements; twenty-five (or 65%) admitted not having any mission or vision statements, and ten

(25%) claimed they have the statements but could not present evidence. The lack of mission and vision statements poses difficulties with defining clear institutional directions for the enterprises.

Types of Enterprises/Crops: Cooperatives are the most common type of business with twenty-seven (or 68%) describing themselves as farmers' cooperatives; eight identified themselves as associations, three as corporations, and three as sole proprietorships. In the same way, twenty-seven (or 68%) of mapped enterprises identified themselves as either farmers or producers; ten said they were processors, and three said they are aggregators. Cassava and rice are the two most popular crops. Cassava makes up 38%, rice 31%, and other crops including cocoa, vegetables, beans, and others represent 31%. All four types of enterprises trade in these major crops.

Business Operations: Producing, Processing & Packaging, Storage, and Quality Issues:

While the momentum is high and LFA is making impacts, there are serious issues that need attention. Among the key issues are poor processing, inadequate/poor storage facilities, packaging problems, and serious quality issues. The mapping team found that the lack of storage poses serious obstacles to about 30% of enterprises. More than twice of those who reported storage facilities also complained of poor conditions and inadequacies, while 32% have serious transportation needs, 42% have networking problems, and 35% have marketing needs.

Poor infrastructure is a national problem. In the four counties visited, farm-to-market roads are deplorable. There are no adequate public facilities such as warehouses, public trains or buses, or affordable trucking transportation. Farmers, producers, and aggregators have to rely heavily on private businesses for transportation and warehousing, which can be very expensive. These conditions clearly signal the need for immediate interventions because poor facilities may cause

hygienic and sanitary problems, which may affect the quality of the products. The mapping team found more than 23% of the processors need help with packaging. In addition to improper packaging, rudimentary labeling and disorganized processing centers were some of the major problems that we observed among LFA-supported and potential enterprises. One of the two super gari packets bought from one of the processors contained sandstones and other foreign particles.

Inaccurate measurement was another problem that was discovered. One processor labeled their product as containing 500gram. When quizzed as to how she/he came up with the measurement, the person revealed it was done based on the size of a plastic. There was no way to actually know the weight of the contents of each packet. Misinformation about the health benefits of products was widespread. One processor told a group of more than 20 people that their product has ingredients that can cure cancer, hypertension, and other ailments. Further investigation by our team revealed that the person did not do any scientific research to support the claim; rather, the conclusion was made after reading an article on Google. Misinformation, processing issues, and poor storage facilities are among the serious challenges that are confronting a majority of LFA-supported enterprises.

Management and Financial Operations: Business Plans: The mapping team also found a vast majority of the enterprises do not have, or start with, business plans. This was another major finding. A business plan is a very important business tool that helps enterprises to become strong and successful. It provides very important details that can help an enterprise to make sound decisions and judgments, maintain focus, and help to attract investment. Unfortunately, 90% of all mapped enterprises started without business plans. The lack of business plans among LFA-supported enterprises should raise serious concerns and highlight the need to take immediate

corrective measures. It can be said that the 10% who reported business plans did not prepare the plans themselves; rather, they received the business plans from their donors. Also, the business plans we saw do not contain the key elements of actual business plans, such as SWOT analysis, agribusiness industry analysis, competitor research, or discussion of defined business models, strategies, products or services.

Because a vast majority of these enterprises did not start with business plans or did not have any at the time of mapping, it is difficult for most of them to properly describe their products or services, explain their short and long-range objectives, discuss the agribusiness industry, lay out business models, talked about competitions and other aspects such as marketing strategies, management teams and most of all, to clearly state the amount of capitals that they required to support their enterprises. The situation also leaves them without marketing plans, SWOT analysis, financial projections, and obviously, without strong organizations that have sturdy governing bodies and adept management teams that would advance the goals of profit-making and growth within their enterprises.

Financial Statements. The mapping team also found, surprisingly, that the enterprises did not have proper financial documentation. Roughly 95% did not have financial statements, with the other 5% claiming to have some statements. When asked to bring the statements for verification, they could not give us any proof. Of all those who were interviewed, 99% did not know the meaning of financial statements. The lack of financial statements is a major problem for LFA because its main goal is to "increase the agriculture income of smallholder farmers through increased private sector investment." Traditionally, it is challenging for any business enterprise to increase its income when it does not have current financial statements (i.e. balance sheet,

income statements, and cash flow statements). It is our impression that the lack of financial statements not only casts doubt on the enterprises' ability to know what they own, owe, and their net worth on particular dates, it also exposes the enterprises' inability to know how they are performing, or how their business operations affect cash flow.

Additionally, the absence of these statements makes it challenging to attract private sector investors, which is one of LFA's goals. Usually, financial statements are used by the management of enterprises to communicate with interested outside parties about their ability to run their enterprises successfully. Income statements provide important information that investors and creditors use to evaluate the performance of an enterprise, which, in most cases, serves as an attraction for investors.

Furthermore, the lack of clear indication on how the enterprises are performing, as well as the lack of strong financial infrastructures, depicts a bigger problem for LFA itself. Investors are unlikely to support enterprises that lack such basic financial information because they run a higher risk of resource mismanagement, poor performance, and huge losses.

The finding should be of serious concern because the financial condition of any enterprise is of major concern to investors and creditors. As contributors or potential contributors to the enterprise, investors and creditors count on the financial conditions of a business in order to ascertain both the safety and profitability of their investments. Financial statements address these concerns. Aside from attracting investors, financial reporting is important for the enterprises themselves. All profit-making entities are obliged by law to report their earnings. And while it can be argued that financial statements do not provide all the meaningful conclusions, they do assist in the process of strategic planning and decision-making.

Poor Accounting Systems. A whopping 90% (thirty-six) of all the enterprises mapped did not have proper accounting systems! Four (or 10%) claimed to have accounting records that were prepared by outside donor organizations, but not themselves. All forty (100%) enterprises could not accurately describe the meaning and purposes of either accounting or accounting systems. Consequently, a majority of the enterprises that were mapped faces not only the problems presented by lack of financial statements, they also do not have the appropriate accounting systems that record, analyze, and communicate the financial activities of their respective operations. In other words, the lack of financial statements is due to the lack of accounting systems. LFA deals with different agribusiness enterprises including farmers or producers, processors, aggregators of farm products, investors, and others. Each of these enterprises has its own unique accounting requirements if it is to succeed. For example, farmers/producers represent 68% of those mapped. Not one farm enterprise has an accounting system that considers the costs of maintaining their major asset, land. None told us about how they recorded the costs associated, for example, with fertilizers, irrigation, soil management, weed removal, pest control, or other practices. It is the belief of the mapping team that if a land is to produce better, it must be looked after; which means the accounting system must capture the expenses made to use and maintain it. Besides accounting for the land, other transactions such as cash inflows from investors, nonprofits, and government subsidies must be accounted for. All of these, including accounting for living produce -the plants and animals they grow-which they must account for, make farm accounting more complicated especially in terms of assets, liabilities, sales, and expenses.

Farmers and producers are not the only groups of LFA-supported enterprises that are experiencing the problem. The processors make up 25% of the enterprises mapped. They are also

faced with the problem of poor accounting systems. Most of the processors are engaged in the processing or production of agricultural products such as gari, starch, rice, vegetable source, cocoa, etc. Unfortunately, these enterprises do not have the appropriate accounting systems that capture their operations. As is being understood, enterprises that are engaged in processing need an accounting system that centers around, for example, either process costing, job costing or hybrid costing system. It can be concluded that this issue requires urgent attention from LFA. Ensuring the appropriate accounting system is necessary because a processing business must account for costs associated with individual units of outputs that cannot be differentiated from each other, use a system to gather and assign the costs to products that are manufactured on an individual basis; and in cases where there are elements of both mass and customized productions, the appropriate system must be used. Without using the appropriate accounting systems, it is challenging for the processing enterprises to account for the costs of raw materials, conversion costs (direct labor, factory overhead), costs of goods in process, costs associated with finished products, or to factually account for the costs of goods sold, etc. Undesirably, the mapping exercises revealed that none of such detailed accounting systems are being used. Again, a poor or nonexistent accounting system poses serious risks to the processing enterprises because it could result in the probability of mismanagement, poor performance, and huge loses. This risk could also affect the investments that have already been fed into these processing enterprises by LFA.

Value Chain. Of the forty enterprises that were mapped, only three gave us a clear analysis of value chain. A good example of LFA-supported enterprises that are increasing the value chain of cassava can be found in Nimba. A particular farmer spent approximately \$2.60 to produce a 65kg bag of cassava. The 65kg bag was then sold to a LFA supported processor who spends

approximately \$4.58 to purchase it. The processing enterprise then processed the 65kg bag of raw cassava and produced 120 cups (approximately 50kg) of ordinary gari. Other ingredients including milk, sugar, and coconut were added to the ordinary gari and processed to produce 91 packets of Super Gari. Each packet weighs approximately 500gm. In all, the total cost of producing one packet of super gari was \$0.48. The processing entity then sold a packet of Super Gari to retailer stores (mostly gas stations/mini marts) at the price of \$0.68. The retailers sold each packet to final consumers at the price of approximately \$1.00. Clearly, as we can see, all of the stakeholders involved in cassava and its products in this example have a profit margin above \$1.00. However, when other costs which are not captured by the farmer and the processor are taken into account, it appears like a bulk of the profit went to the retailers.

The mapping team, again, realized that the lack of proper accounting systems is evident throughout and is affecting all aspects of the businesses. If for example, the farmer had factored in other costs such as land, transportation, packaging (empty rice bag), and actual labor, the production cost for a bag of cassava would have been much higher than \$2.60. Similarly, if the processor had factored in the depreciation of manufacturing equipment, packaging, etc, the production cost for a packet of Super Gari would have been much higher.

Having discussed the downside of the value chain in this example, it can also be concluded that the LFA-supported enterprises are actually generating incomes, creating local jobs, and supporting the local economies of their communities. We found that a production chain where a value is added creates a lot of benefits for all the entities because adding value includes a whole range of activities, from the beginning of the product idea to delivery to customers, which the enterprises have to go through in order to make their commodities available to customers. These processes create jobs, increase incomes, and promote the general well-being of local communities.

Relationships, Linkages, and Networking. The need to establish a countywide and national networking was the most common request of all the mapped enterprises. All enterprises across the four counties support the idea of networking and promotion of business relationships and market linkages. At the start of the process, it was discovered that more than 97% of the enterprises interviewed have no business connections or relationships with other LFA-supported enterprises.

Based on the revelations, a 3.5-hour business development working session was organized and conducted in each of the four counties, which led to the formation of an agribusiness network in each of the four counties. Each county's network formulated an action plan to facilitate business linkages and relationships, as well as to foster collaboration and knowledge-sharing. Many also expressed the vision that by coming together to form networks, they will be able to solve common problems such as poor standards of food and crop processing, price inconsistencies, poor sales due to poor market information, etc. The networks from the four counties are planning to organize a grassroots national agribusiness conference in 2018. The goal is to formulate a framework of action that identifies priorities for action as well as a strategic plan that will foster growth within the agribusiness sector of the country.

Views and Opinions of Communities About LFA Interventions: Through the AI method,
LFA-supported enterprises were engaged to share stories about themselves and the impacts of
LFA's supports on their enterprises and their communities. There were general themes of
appreciations and achievements. All of the enterprises expressed their appreciation to LFA for its
interventions. A vast majority considers the approach as being very different from other

programs. Although many of the enterprises are not used to some of the ideas, for example, the loan scheme, co-share, etc., they thought the approaches are good for them. Many suggested the interventions will enable them to become strong and productive and will end the dependency syndrome that has kept them and their enterprises weak in the past.

On the question of the achievements they have made through LFA interventions, a majority of them said that the activity has made significant impacts as it has improved their livelihoods. Many said LFA has helped with "supporting their children's education," "generating incomes to support their families," "purchase of lands and construction of new homes," "increased knowledge and skills in agribusiness," "supporting their local economies," "contribution to community peace and stability", and many more.

One enterprise in Bong County talked of how the support they have received from LFA has enabled them to change the image of their town. They told us that their town has become a major cassava and rice processing hub in their district. The general impressions regarding LFA's intervention in all the four operational counties is very positive. In some places, LFA is a household name. It can be said also that the enterprises are enthusiastic and zealous to support the activity, with scores of new enterprises seeking to become a part of the LFA family.