

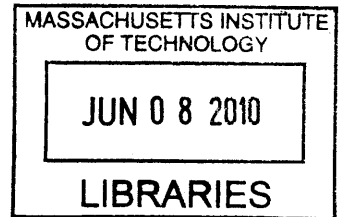
**A HISTORICAL VIEW AND PROPOSAL ANALYSIS OF THE STRATEGIC ROLE OF THE TRANSPORTATION
SECTOR IN THE ECONOMIC DEVELOPMENT OF POST-WAR LIBERIA**

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SUBMITTED TO THE MIT SLOAN SCHOOL OF MANAGEMENT IN PARTIAL FULFILLMENT OF THE
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ABSTRACT

This thesis examines the proposals for building and improving the transportation sector in Liberia, primarily the roads while providing immediate social opportunities and employment for many of the poor in Liberia. As Liberia emerges out of a protracted civil conflict and makes strides on a number of socio-economic fronts, the need to prioritize the transport sector is a critical part of the nation's rebuilding efforts. A large portion of the country lacks basic infrastructure. This has put an enormous strain on economic and social services, lead to an increase in poverty, marginal health care and lack of education.

Improving the transport sector will help stimulate economic viability, expand public services and provide admission to and from urban centers. Connecting the rural areas with urban centers and markets means improved infrastructure at an affordable cost, taking into account the environmental challenges and decreasing its damaging effects. This will also help Liberia become a role model in the ever challenging global forum of nations and industries going green. Achieving this is not always an easy task, because although, Liberia has an enormous amount of good will from donor countries, road projects have remained a daunting undertaking. The stakeholders must come to terms with developing a comprehensive approach to rebuilding the country's transportation network. Studies must be conducted to understand the cost benefit of rebuilding road network throughout the country. Once these studies are completed, a diligent effort to execute a plan must be initiated.

For each policy to serve its significance, the various modes of transportation in the country must be harmonized and directed under a governing body, such as the Ministry of Transportation. Within this governing body, there must be a system of checks and balances, ensuring that the interests of the citizens are at the forefront. Several recommendations have been examined: the logistics and talent makeup of the transportation team, authority within the team, tax and toll policies, unification of sectors, and contributions by private investment firms. As Liberians prepare for the next presidential election, the next five years should be used as a timeline to implement and measure success. Finally, a contingency plan outlines basic, yet productive approaches to improve roads immediately, while providing jobs for many of the unemployed.

Thesis Advisor: Gabriel R. Bitran,
Society of Sloan Fellows Professor of Management
Professor of Operations Management

Thesis Reader: Andre Patrick Pope
Liberian Economist and Financial Planner

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I dedicate this thesis to my grandfather, my most loyal fan, The Honorable Cyrus S. Cooper, who passed away during my term here at Sloan.

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Ellen K. Corkrum

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Introduction:

Thesis Topic:

The strategic role of the transportation sector in the post-war economic development of Liberia

Thesis Question:

How can the strategic development of Liberia's transportation sector promote the nation's attainment of its post-war economic development goals?

The West African nation of Liberia has shifted from nearly a decade and a half of brutal civil conflicts to renewing democracy and rebuilding the trusts of her citizens and the international community. The strategic role of the transportation sector in the economic development of post-war Liberia is a fundamental piece in bringing forth the implementation of sustainable growth. This study examines the ways in which this West African nation may develop and utilize its transportation industry to promote the achievement of national goals for economic development. Rebuilding the nation's economy is critical to enhancing the quality of life of its citizens. While one nation may choose to focus on particular economic sectors such as education and affordable housing as paths to economic development, others may be enthusiastic supporters of a completely different sector such as health care, manufacturing, or the finance sector. Regardless of the vision of economic development held by leaders, it is necessary to craft a coherent, comprehensive, and in-depth plan for achieving the vision. One such document is a tactical plan for the design, implementation, and management of the four sectors of the transportation industry. Such a plan, as proposed within this study, will draw heavily from a number of sources: 1) preliminary and incomplete plans created but not yet implemented by the Liberian government to develop its transportation infrastructure; 2) a number of successful tactics employed in the transportation sector of emerging and less-developed nations to create a comprehensive, integrated transportation plan; 3) lessons learned during my tenure as a United States military Supply and Logistics officer and expertise in the transportation sector; and 4) my education and professional role as a military and commercial pilot, skilled in aviation logistics and planning. Ultimately, this thesis seeks to promote a transportation strategy that is informed by research and best practice and attenuated by factors that are internal and external to Liberia's transportation sector.

Problem Statement:

The Liberian nation is recovering from years of infrastructure damage and is currently developing strategies to use in rebuilding its socio-economic infrastructures. The Government has designed a preliminary transportation plan to support its economic development strategy. The Poverty Reduction Strategies (PRS) states that "Liberia's growth strategy has three prongs: rebuilding roads and other critical infrastructure; reviving the traditional engines of growth in mining, minerals, forestry, and agriculture; and establishing a competitive business environment to help diversify the economy over the medium term."¹ The government has stipulated transportation as one of the mechanisms through which to achieve its economic development and poverty alleviation goals. This process revealed that roads are necessary for creating employment and improving economic viability. What is needed, however, is a comprehensive plan that integrates the various modes of the transportation industry around a set of national goals. It is vital that the transportation sectors across international boundaries and institutions are a branch to this course to recovery.

Research Methods:

Data will be gathered from various sources: 1) documents from the government of Liberia that describes their national economic development goals and the transportation sector; 2) documents from the Poverty Reduction Strategy Paper on Liberia; and 3) interviews with Liberian economists and leaders who share a similar strategic vision for Liberia. I seek to examine the comprehensive plan of action which Liberia must devise for their transportation industry in order to promote their economic development. I also seek to explore what the Government has stated as its transportation goal and their approach to execution. I will also address whether or not transportation can be a core competence to improve the country's attraction to foreign investors. This overall approach will examine how Liberia can use transportation to support and accomplish their national strategic and economic development goals.

Then I do a STEP model analysis to address the macro factors in Liberia. This is important as the factors addressed are imperative and have influenced the shaping of present day Liberia, especially on the economic and political realms.

Following this, I will provide recommendations on what can be done to rebuild the transportation sector efficiently, costily and timely.

Limitations: There is very limited data on Liberia's transport sector, particularly as it ties into economic viability. A foundation for improvement and contributing to this must be continuous. This can be accomplished through the commitment of citizens and organizations to study and publish findings, regardless of scale.

¹ International Monetary Fund, "Liberia: Poverty Reduction Strategy Paper," *IMF Country Report*, no. 08/219 (2008), http://planipolis.iiep.unesco.org/upload/Liberia/Liberia_PRSP.pdf.

Background

The African nation of Liberia, located slightly south of the equator, is a country of approximately three million inhabitants who occupy a land mass that is roughly the size of the state of Ohio. The country was settled in 1822 by freed slaves from the United States southern region who took back with them, a system of government fashioned on that of colonial America. Although emancipation and their new homeland provided freedom to the new immigrants in Liberia, it also planted the seed of discontent among indigenous Liberians that would simmer long and slowly and centuries later would erupt into military coup, decades of civil unrest, and a 14 year civil war.²

On April 14, 1980, the coup d'état of President William Tolbert was the onset of the civil war and crisis. Liberia suffered a 14 year vicious war from 1989 to 2003. An estimated 270,000 people were killed. The war displaced hundreds of thousands of refugees and internally displaced persons (IDPs). The war was very destructive, eradicating basic infrastructure, and government standings. Several factors leading to the war included: corruption, the exclusion of a large part of society from government positions and economic accessibility. The exclusion was driven by the settlers to Liberia who ruled the country for over a century and who regarded indigenous people as a lower class of society. Power was concentrated at the executive level with little to no balance of power. The collapse of the economy also helped foster the war. There had been balanced economic growth of 4 to 7 percent a year through the 1960s. There was an unbalance of wealth between the elite (descendants of settlers, the Congo people), and the indigenous people. In the 1970s, the increase in world petroleum prices and the decline in export led to a downturn in the economy. The economic downturn was further exacerbated by the price increase of rice and the increased unemployment rate. The war ended with the insertion of international peacekeepers. This led to the removal of President Taylor and the signing of the Accra Comprehensive Peace Agreement (CPA) in 2003.³

According to the PRS, GDP fell 90 percent 1987 and 1995; this collapse was one of the largest recorded in the world. This catastrophic decline in GDP (Figure 1, see page 32) and (Table 1, see 34) shows the decline in agriculture, manufacturing and the service industries.⁴

Liberia's Economy

Prior to the war, Liberia had largely depended on its exports of natural resources such as rubber. The transport sector played a leading role in movement of these goods. This allowed for a relatively high standard of living among Liberia's elite. By the first conflict, 1989-1996, the real GDP fell as low as 10% compared to that of 1987. The effect of the war on the economy was so tremendous, that in 2002, GDP was less than one-half the level before 1989-1996 conflict. According to the PRS, the production of agriculture and livestock all declined considerably. Mining, rubber extraction, iron ore and timber

² Quentin Outram, "Recent History (Liberia)," Europa World Online, Massachusetts Institute of Technology (MIT)
<http://www.europaworld.com/entry/lr.hi>

³ Outram, Recent History.

⁴ International Monetary Fund

halted. During the period of 1987-2005, other industries also declined significantly, reference (table 1, see page 34) again, rice—76%, financial services—93%, electricity and water—85%, transportation and communication, trade and hotels, and construction—69%. Basic forms of fuel and energy production with the use of charcoal and wood increased. Similar to any war country there was massive exodus of the citizens from the country. This included skilled and talented human capital. GDP projections through 2011 can be referenced on (table 2, see page 35).⁵

The transportation sector was severely destroyed. Majority of the roads today are treacherous; preventing the efforts of peacekeeping and security forces. This lack of accessibility to the interior also inhibits one of the President's goal, that of national cohesion and inclusivity of the rural communities and ethnic groups. Roads are the primary link of passage for economic trade within the country; hence serious constraints to the economy were and remain a major downfall. Electricity and water supply was discontinued for 15 years. In July 2006, the government restored electricity to some communities and offices. Majority of the citizens continue to rely on individual generators to power their homes.⁶

Poverty has soared gravely. Per the IMF estimates, Liberia stands as one of the world's poorest countries, GDP per capita estimated at US\$190. The rural areas, particularly due to segregation enhanced by bad road conditions, suffers the most as they have even limited access to formal education, healthcare, security and other key economic elements.⁷

"The healthcare outlook is bleak, and in 2009, there were only 51 Liberian physicians to cover the nation's public health needs, approximately one for every 70,000 Liberians."⁸

The signing and implementation of the 2003 peace agreement was the road map to stabilization and recovery. The government along with its international partners worked to implement policies and strategies to fuel development and sustainability. The PRS reports that the initial strategy implemented in the plan for the Government's first 150 days was organized into four basic Pillars. The four Pillars are:

1. Expanding peace and security—the assurance of security and safety was foremost for the citizens as they transitioned from war mentality to post-war civility.⁹
2. Revitalizing the economy—moved to a cash-based balanced budget, improved enforcement and collection of taxes and custom duties, an area of extreme corruption in the past, and implemented two IMF Staff-Monitored Programs which significantly improved public finances and monetary exchange rate policies.¹⁰

⁵ Quentin Outram, "Economy (Liberia)," Europa World Online, Massachusetts Institute of Technology (MIT) <http://www.europaworld.com/entry/lr.hi>

⁶ International Monetary Fund.

⁷ International Monetary Fund.

⁸ International Monetary Fund.

⁹ International Monetary Fund.

¹⁰ International Monetary Fund.

3. Strengthening the governance and the rule of law—required the President and Cabinet Ministers and commissioned officers to declare their assets to the public; will launch an Anti-Corruption Commission with prosecutorial powers, implement civil service reform, plans to settle pay arrears of civil servants, and balance the Executive power by strengthening the Legislature.¹¹
4. Rehabilitating infrastructure and delivering basic services—four major roads, various secondary roads, bridges, culverts and drainage systems were rehabilitated, reduced and in some cases eliminated tuition and fees for public schools, restored health care facilities, immunized 95% of children under age five against measles. To help combat HIV/AIDS, the Government provided prevention services and treatment to people living with the disease.¹²

While the PRS agenda is progressive, they realized the limitations and have outlined these constraints to achievement:

1. The ready availability and coordinated disbursement of financing
2. Leadership, administrative and technical capacity
3. External stability and economic contagion effects
4. Internal security
5. The realization of economic growth projections¹³

With these constraints in mind, the government outlined its central objectives over the next three years as:

1. Firmly establish a stable and secure environment across Liberia
2. To be on the irreversible path toward rapid, inclusive and sustainable growth and development
3. To rebuild the capabilities of and provide new opportunities for Liberia's greatest asset—its people
4. To establish responsible institutions of justice, human rights, and governance¹⁴

The government of Liberia outlined its growth strategy into three prongs:

1. Rebuilding roads and other critical infrastructure

¹¹ International Monetary Fund.

¹² International Monetary Fund.

¹³ International Monetary Fund.

¹⁴ International Monetary Fund.

2. Reviving the traditional engines of growth in mining, minerals, forestry, and agriculture
3. Establishing a competitive business environment to help diversify the economy over the medium term¹⁵

The PRS process revealed that across the country, Liberians state that their number one priority is better roads. As the economy looks to recover by creating job opportunities for its citizens, better roads are a major piece to ensuring: accessibility to other parts of the country; movement of goods; strengthening of police and law enforcement presence for tighter security; and access to health and educational facilities.¹⁶

Hence, I have chosen to examine the transportation sector as a growth strategy to advance Liberia's growth and improve the economy.

Stated in the PRS, the primary role of Liberia's transportation plan is to support the nation's overall economic development plan. The nation intends to rehabilitate its transportation infrastructure and restore a system (rail, air, water and roads) which provides the links to achieve growth. While there are many objectives, the government has focused on rebuilding roads as the central priority. The government has to address the role it shall play without compromising checks and balances and in encouraging the support from its partners. According to the Poverty Reduction Strategy, 2009, four major determinations are necessary:

1. The cost of providing infrastructure and services, and how much the budget could support.
2. The assignment of the appropriate regulatory and oversight institution
3. The role of and extent of private/public involvement in delivery of services.
4. The appropriate frameworks used for maintenance and sustainability of assets.¹⁷

Tactics: The Liberian Government Tactical Approach to Rebuild the Transport Sector

In writing a Priority Action Matrix for the PRS, The Government of Liberia set goals to improve the transport sector. As part of this strategic agenda, they plan to implement several tactics which are to be applied across all sectors of the transportation industry and they include: A National Transport Policy, A National Transport Master Plan, and training for Ministry of Transport staff in transport management, economics, research and meteorology. There are, however, individual tactics, listed below, which are specific to each sector.¹⁸

Roads and Bridges:

- Public and private partnership

¹⁵ International Monetary Fund.

¹⁶ International Monetary Fund.

¹⁷ International Monetary Fund.

¹⁸ International Monetary Fund.

- Government rehabilitation of 430 miles of primary and secondary roads, however, financing and capacity constraints have limited this course
- Bolster the capability of the Ministry of Public Works through education and an increase in salaries
- Ensure all primary roads are pliable year-round and construct 1187 miles of primary roads, paving 1075 miles of roads
- Partner up with mining, logging and agricultural companies to undertake some rehabilitation progress, and to offer the companies concessions in return
- Rehabilitate roads in Monrovia and in the headquarter regions of the 15 counties, hence; increasing jobs for the citizens and promoting safety
- Recruit engineers and other skilled professionals through the Senior Executive Service (SES) and Transfer of Knowledge through Expatriate Nationals (TOKTEN) programs
- Adapting lessons from international best practices such as a fuel tax to be used for road maintenance

Aviation

- Conduct feasibility study on reconstruction of airport infrastructure
- Rehabilitate major structures and equipments at Roberts International Airport
- Reacquire encroached land
- Resurvey and fence in the airport land to improve safety
- Improve legislation for the airport

Maritime

- Privatization of management operations and outsourcing to international companies
- Increase efficiency through acquisition of handling equipment and operations of basic marine crafts
- Rehabilitate the wharf at the Port of Monrovia
- Removal of wrecks from the basin
- Acquisition of sea-water firefighting equipment
- Navigational aids for 24-hour berthing and un-berthing of vessels

Railway Network

- The rail system has not been operational for 20 years. The primary purpose of Liberia's rail system was for the transport of iron ore. The system extended from Monrovia to Mano River via Bomi Hills, (145 km), from Monrovia to Bong Mines (78 route-km), and from Buchanan to Yekepa (267 route-km). Liberia's iron ore industry closed during the war and the rails were damaged and vandalized for the scrap metal. The only current tactic to restore the railway network started in 2007 with Arcelor Mittal, the world's largest steel company, restoration of the Buchanan-Yekepa line as part of its investment project.

STEP analysis and Lone Star Framework of Liberia

In this study, I will conduct a comprehensive and in-depth overview of Liberia utilizing the STEP Model to describe external factors of this nation. Per its acronym, STEP refers to Socio-cultural, Technological, Economic, and Political factors.

SOCIAL			
Demographics /population growth rate/age Distribution	+	Displacement of Population	-
Travel Abroad	+/-	A youthful society	+
Health Consciousness and Welfare/Feeling on Safety	-	Fashion Hype and Role Model	+
Immigration Sentiments	-	Consumer attitude and opinion of foreign goods	+
Brand	+	Religious Practice	+
Gender laws/ministry	+		

Demographics: The demographic outline of Liberia is similar to that of most developing countries. Report by Europa World Plus indicates that Liberia has a high birth rate, high proportion of children under age 15 (roughly 45.1% of population), and a low life expectancy (44 years of age). Given this factor, majority of the older generation also falls below poverty standards. Many people, who may have had wealth, were displaced and during the war and lost most, if not all, of what they had. Today, the justice system is overly tasked adjudicating land disputes; disputes resulting from encroachment by citizens who settled in abandoned properties during the war. In other cases, some people have outright chosen to take claim to land once legally owned by others and with the trading of said property; the line

of trace for proper ownership is somewhat grey. Liberia has a tropical climate, with temperature ranging from 18 degree Celsius to 49 degree Celsius. There are 16 ethnic groups and although they speak their own dialects, English remains the official language.¹⁹

Displacement of Population: Greater than one third of the country's population fled during the civil war. Many were refugees and later settled in neighboring countries like Ghana, Ivory Coast and Nigeria. Social immigration refuge programs, implemented by the countries like the United States, Canada, and Belgium enabled many Liberians to also seek asylum abroad.²⁰ With this displacement, some Liberians chose to make their home in these new countries and embraced opportunities for education abroad. Today, while most still live abroad, the ones who have chosen to go back to Liberia are able to make meaningful contribution to the growth and development of the country. However, for those who choose to maintain the citizenship of their new country, they are not able to hold government positions in Liberia, but they can contribute in the private sector, a segment in need of contribution.

Travel Abroad: The displacement caused by the war, resulted in travel abroad by a vast majority of the population. This contributes immensely to the economy as people abroad, generally, provide financial support for their family members in Liberia. This is a major source of the currency turn in Liberia as the influx of Western Union and Money Gram transaction is tremendous.

Youthful Society: With over fifty percent of the population under age 21,²¹ the country could gain from its youth as it strives for parity with other developing nations. On the downside, unless the country rapidly implements plans to educate its youth and provide employment, the restless minds could deteriorate and fall prey to some of the factors which led to the civil wars. There is generally a perception of a leisure attitude within the society. Being that most youngsters are unemployed and/or may not be in school, their sentiments of failed hope may be mistaken for leisure attitude when in fact, most are eager to advance their education and find employment.

Health Consciousness and Welfare: The health sector is recovering and is now in a developmental stage. With the displacement of many qualified practitioners, the country was in an emergency and reactionary mode for a long time. As part of the recovery plan and with the help of donor organizations, the country is increasing the number of practitioners, some whom have returned home after studying abroad. There is increased and affordable treatment for HIV/AIDs including preventative teaching. The government recognizes the increased need for social/welfare programs to help combat the need for psychological care and other vulnerable segments of the populations like the orphans.²² The traditional practices within the country do help to soften this burden as extended family members also take care of children other than their own. There are also practitioners trained in traditional medicine who have rendered care long before the introduction of western medicine. While this may not be widely

¹⁹ Europa World. Europa World Online, Massachusetts Institute of Technology (MIT)
<http://www.europaworld.com>.

²⁰ Europa World.

²¹ International Monetary Fund.

²² International Monetary Fund.

recognized by Western health care practitioners, these are proven and effective medicinal practices passed down from one generation to the next.

Fashion and Role Model: Liberians have always had a great sense of fashion and style. While they incorporate American fashion, they also create their own. This consciousness remained even during the war, relatively of course, and the increased exposures to other parts of the world due to displacements, have only enhanced this fashion style. The youth also stands to benefit from many role models who have decided to make an impactful difference in their societies and are able to exhibit their success to the youth, encouraging their ability to dream. Women are especially making a difference in their successes and accomplishments on the global scene and this serves as a model for not just Liberians, but for the African continent and the rest of the world.

Immigration Sentiments: Liberia has always welcomed foreigners whether as business partners, investors, teachers, or in other professional capacities. Liberia, however, maintains a policy that only those of African descent, black race, can hold citizenship. This is still aligned with the policy established in the initial constitution when the free slaves strived to ensure they would not be enslaved by foreigners on their new land, Liberia.

Consumer Attitude and Opinion of Foreign Products: Liberians welcome goods from abroad and have a high opinion for foreign merchandise. This is primarily because we do not manufacture most of what we need to consume. While we have a very fertile land and can support the cultivation of our own agriculture, we import manufactured goods for a range of consumption.

Brand: The country is respected by the international community and this gives us leverage to be the forerunner in whichever sector we assess and decide to make meaningful investment in. This is a time for turnaround and growth and given the current political rule, our brand is continuously being recognized in a positive light.

Religious Practice: The dominant religion practiced in Liberia is Christianity. While the cultural is open and tolerant of many other religious practices, the second most practiced religion is Islam. Bordered to the west by Guinea, a country dominated by many Islamic practitioners, many Muslims share not only the border with Liberia but also family ties.

Gender Laws: The roles of men and women in society are being addressed to promote equality. One such initiative is the creation of the Ministry of Gender and Development. As part of Liberia's global inventiveness to promote gender equality, one must recognize the strong message of being the first country on the African continent to elect a Woman President. Additionally, women hold many top level staff positions. Liberia passed a Rape Law in 2005, signifying that rape is a criminal offense.²³ Women have the same rights to property, education, healthcare and other social aspects within their communities. Despite the atrocities experienced during the war, especially by women and children, Liberia has set the stage for creating a model on women equality that not only can other African countries emulate, but other countries around the world.

²³ International Monetary Fund.

TECHNOLOGY			
Maturity of Technology and Innovation Potential	-	Postal Services	-
Energy Use and Cost	-	Internet	-
Private Sector commitment to Research and Development	+	Information and Communication/Mobile	-
Emerging Opportunities	+		

Maturity of Technology and Innovation Potential: The technology sector is quite primitive. While there may be technological advancements in the way of telecommunication and internet services, the agriculture sector must not be ignored. Liberia must adopt new techniques and technologies to increase the production of food while promoting healthy eating.

Postal Services: Liberia has very limited service, with eight post offices. A high percentage of the staff lacks adequate training. The government is, however, implementing a plan to develop an effective postal policy, training staff members and creating new positions, and a national campaign to promote the awareness of postal services. Prior to the war, Liberia operated a postal service which included the delivery of mail to post office boxes. As the country rebuild, Switzerland, Korea and the United States have strongly supported the rebuilding of the postal service.²⁴ United States based Federal Express also operates in Liberia by delivering packages and shipping packages out of the country. An expensive alternative no doubt, but currently one of the only reliable means of sending a package to Liberia. As more roads are built, this sector is one which will be greatly improved, providing accessibility to the rural areas.

Energy Use and Cost: Energy production in Liberia is scarce with only approximately 10% of Liberians in urban areas receiving electricity and 2% of Liberian in rural areas. The primary source of electricity is being produced by private generators, at an abysmal rate with still more than 90% of energy being produced from firewood, kerosene and palm oil.²⁵ Liberia has the capacity to improve her energy source. Innovative approaches could prove to be more adaptable given location of the country near the ocean and technological advancements in green energy.

Information and Communication/Mobile: Liberia has a central goal to establish rules and standards for the International Telecommunication Union (ITU). Education and training is necessary for this development. The Liberian Telecommunications Authority (LTA) has been launched and is working on the reestablishment of a national land line.²⁶ The government offices currently have land lines, but this is not common in households. Instead, there are at least four mobile phone companies providing services

²⁴ International Monetary Fund.

²⁵ International Monetary Fund.

²⁶ International Monetary Fund.

to the general population. Even with this competition, there is still a problem with affordability and convenience, especially for those in rural areas.

Internet: Internet service is very limited in Liberia and while there are many internet cafes around the city center, the connectivity remains low. Internet service is available in government offices and in some homes; however, there is still a huge need for growth. Additionally, the electricity shortage also burdens the accessibility of computers.

Private Sector Commitment to Research and Development: Many donor countries and organizations, such as the Scott Family Liberia Fellows Program have pledged to Liberia's development.²⁷ Private firms within the country also contribute to Research and Development, although they must commit to investing more into the communities. This may have to be specified in contract agreements with the Government. Firestone Natural Rubber Company,²⁸ according to company facts, provides the only source of electricity to the Roberts International Airport, helps combat HIV/AIDS, provides top medical care for Liberians, and has donated \$85 million to rebuild the infrastructure. Arcelor Mittal mining also contributes to the development of the country by reopening segments of the railroads. The continuous efforts of private firms, investments and donors will expand the advancement of research and development in Liberia.

Emerging Opportunities: Liberia has very fertile land and is rich in agriculture. While the country needs to produce food to sustain its own population, other opportunities in agriculture in the form of rubber exist. Liberia's own Sinoe Rubber Plantation, with proper management, logistics and the government's plan to lease it out to foreign investors, could emerge as an opportunity for massive employment and exports. The high illiteracy rate of nearly 60% gives rise to the number of unskilled workers.²⁹ Within the country though, the need for rebuilding opens up various opportunities for the innovative minds. Whether it is picking up trash and developing ways of decomposing and recycling, an innovative process in this segment could be exactly what youngsters could manage to help dig themselves out of poverty and open doors to education. While technology still has a far way to advance, the existence of human labor allows for better productivity. This coupled with an improved education system will allow for enhanced technological advancement for products and services.

²⁷Independent research and practical ideas for global prosperity, "Scott Family Liberia Fellows," Center for Global Development, http://www.cgdev.org/section/initiatives/_active/scottfellows.

²⁸ Firestone Natural Rubber Company, "Resources-Factoids," Firestone Natural Rubber Company, <http://www.firestonenaturalrubber.com/factoids.htm>.

²⁹ International Monetary Fund.

ECONOMIC			
Agriculture	+	Imports/Exports	+
Interest Rate and Monetary Policy	+	GDP	-
Manufacturing	-	Tax Structure	+
Mining	+/-	Service	+
Merchant Shipping Fleet	+/-	Loan Restructuring	+

Agriculture: This sector contributed 61.4% to GDP in 2008 and while total GDP across sectors decreased, it rose in agriculture. Agriculture sector lends the highest employment rate, with nearly 65%. The main product in this industry is rubber, followed by the production of the country's prime crops, rice and cassava. Plantains, coco yams, cocoa beans, pineapples and oranges are also produced and grown mainly for local consumption.³⁰

Imports and Exports: In 2007, Liberia imported nearly \$501.5 million worth of principal commodities, (Table 3, see page 36). Rice, Liberia's principal food although grown locally, is also imported, primarily from Asia. The export of rubber has also increased and since the UN lifted the ban on diamond in Liberia, the diamond export has been enhanced.³¹

The PRS reports that "Liberia's abundance of rich natural resources, and while this can stimulate growth in the medium to long term, the economy has to encourage private sector investment in trade, manufacturing and services. Labor intensive opportunities include downstream products from wood, rubber and agro-processing. This will create employment opportunities and stimulate export. The biggest limiting factor is the lack of infrastructure, logistics, and high administrative cost."³² When this is accomplished though, Liberia stands to be competitive on the international scene.

Interest rate and monetary policy: There is currently a dual currency policy; the US dollar, one to one exchange and the Liberian dollar, generally 70 to 1 exchange with a US dollar. The Central Bank of Liberia (CBL) is strengthening its position and working diligently to reduce inflation while examining ways to improve foreign investments and to promote lending to small businesses.³³

GDP: The real GDP in Liberia shows a sharp decline, not comparable to the rest of the world from 2002 to 2003 (Figure 2, see page 33).³⁴ As the country pulled out of the civil war, despite continued political instability in 2003, the GDP began a rapid recovery. In 2004, GDP began a steady increase and has continued since. 2009 to 2010 represents the sharpest increase since the country ended the civil war.

³⁰ Europa World.

³¹ Europa World.

³² International Monetary Fund.

³³ International Monetary Fund.

³⁴ International Monetary Fund.

Manufacturing: The manufacturing sector in Liberia is very narrow. This accounted for approximately 13% of the GDP in 2008. Even with this, only about 2,800 Liberians were employed in manufacturing. The largest contributors are beer manufacturing (70%) and cement (24%). Up until the early 1980s, Liberia refined its own petroleum, but this operation was acquired by the Doe regime in 1982. The mismanagement caused it to cease operation in 1982, and Liberia has since been dependent on imported refined petroleum. In 2007, this was an estimated 27% of total imports to the country. Under President Johnson Sirleaf's policy, The Liberian Petroleum Refining Corporation (LPRC) will be privatized. It has been awarded to a U.S. company for \$24 million.³⁵

Tax Structure: A policy has been put in place for reforms which will promote competition through lowered taxes, and increase transparency of public spending. The government reports that these reforms and the enforcement of taxation laws have increased revenue generated from \$80 million in 2006 to an expected \$329 million in 2010/2011. As the transparency initiative is further spread among all sectors, the taxes generated, collected and reported will allow for Liberians to make financial contributions to the redevelopment of the country.³⁶

Mining: In 2008, Mining contributed to 0.2% of the GDP. Liberia is rich in gold, diamond, barites and kyanite. The civil war disrupted mining and exports in 1990. While there were sanctions imposed against the exports of diamond in the mid 2000, other mineral exports, including diamond resumed in 2007.³⁷

Service: This industry constitutes approximately 22% of the GDP in 2008, and employed 37.1% of the labor force.³⁸ Service is largely responsible for the livelihood of multiple families, even if only one family member is employed. In home services such as childcare, meal preparations, laundry care, and chauffeuring are mainly provided by illiterate workers who may otherwise not be able to secure employment elsewhere. A person employed to help with childcare may also bring their grandchildren to work with them. The grandchildren are then fed and taken care of by the employer. Some of these employees take home as little as \$25 to \$50 US, a month. In some of the fortunate cases, these additional benefits make up for the small salary.

Merchant Shipping Fleet: Liberia has a large open-registry (flag of convenience) merchant shipping fleet. This is a major source of foreign exchange. In 2006, this accounted for 8% of the total revenue.³⁹ This is an arena, if properly directed and priced according to world standards could provide substantial revenue for the country. Logistics, pricing and management training should be at the forefront to increase returns and promote the value of this entity.

Loan Restructuring: According to an April 16, 2009 report from the Center for Global Development, Liberia's development was hindered by its huge foreign debt. In 2007, she owed \$4.9 billion, comparable to nearly 700% of the GDP. This was the highest in the world. In 2007, the World Bank reduced her debt by \$400 million and the African development bank also reduced her debt by \$250

³⁵ International Monetary Fund.

³⁶ International Monetary Fund.

³⁷ Europa World.

³⁸ International Monetary Fund.

³⁹ Europa World.

million. In 2008, the U.S. eliminated \$400 million and Germany eliminated \$350 million. In 2009, Liberia bought back \$1.2 billion in commercial debt, about one fourth its foreign debt, from private foreign creditors, including banks, hedge funds, and other investment funds. This was a discount of approximately 97%, the biggest discount ever for a developing country.⁴⁰

POLITICAL			
Colonization	+	Constitution	+
Branches of Government	+/-	Defense	-
Tubman Administration	+/-	Tolbert Administration	+/-
Doe Administration	-	War and Conflict	-
Taylor Administration	-	Johnson/Sirleaf Administration	+

Colonization: Liberia, located on the West Coast of Africa was founded by free slaves from the United States. While the freed slaves arrived in 1821, it was in 1847 that Liberia gained her independence. Liberia replicated the United States constitution, however, remained a nation granting single citizenship. The True Whig Party (TWP) ruled the country from 1878 until the 1980 coup.⁴¹

Constitution: Liberia has 15 counties which are divided into 64 districts. In the revised constitution of January 1986, there is a 64 member House of Representative and a 30 member Senate. House of Representative members are elected for a six year term and each county elects two Senate members, one for a term of six years, and the other for a nine year term.⁴²

Branches of Government: There are three branches of the government, Legislative, Executive-the President and Judiciary.⁴³

Defense: In 2008, the total strength of the Liberian army was 2400 with expenditure of U.S. \$58million, approximately 6.0% of the GDP. In support of the defense structure, the Economic Community of West African States (ECOWAS), a peace-keeping force, has been in place in Liberia since 2003. The UN Mission in Liberia is also present with 15,000 members, to include UN troops, military observers, civilian police,

⁴⁰ Global Development: Views from the Center, "Liberia Cuts its Debt with \$1.2 Billion Buy-Back at 97 Percent Discount," Center for Global Development, <http://blogs.cgdev.org/globaldevelopment/2009/04/liberia-cuts-its-debt-with-12-billion-buy-back-at-97-percent-discount.php>.

⁴¹ Europa World.

⁴² Europa World.

⁴³ Europa World.

civilian personnel and volunteers. Liberia also has a National Police Force, although ineffective with limited equipment.⁴⁴

Tubman Administration: The rise to modernization was momentous from the onset of President William V.S. Tubman rule, 1943 to 1971. During his reign, President Tubman gave rise to two policies: unification and open door. *“The unification policy sought to assimilate indigenous Liberians to the established ‘Americo’ society and polity. The indigenous population gained the right to vote in 1946, although this was limited by a property qualification. The ‘open door’ policy reaffirmed Liberia’s openness to foreign investment and its commitment to a capitalist economy.”*⁴⁵ The unification policy failed and by 1970 and onward, at least until the 1980 coup, it was quite apparent. This lack of unification helped lengthen the civil war.

Tolbert Administration: President William Tolbert began his presidency in 1971. During his reign, the Americo Liberians (Congo people) maintained their long sovereignty of elitism, with the continued violation of separatism of power among the judiciary, legislature and executive branches. The President’s rhetoric gave the country much hope for improved economic conditions, but soon his practices upheld corruption and disparity. He held unrestricted powers and the constitutional guidance to freedom of speech was unheard of. As this continued inequality persisted, the failure of the unification policy was more evident. President Tolbert stayed in power until April 12, 1980 when he was assassinated by soldiers of the Armed Forces of Liberia.⁴⁶

Doe Administration: Master Sergeant (later Commander-in-Chief) Samuel Doe led a coup and assassination of President Tolbert in April, 1980. Doe was the Chairman of the People’s Redemption Council (PRC) and he suspended the Constitution. With much international criticisms, Liberia’s brand deteriorated. In 1984, Doe launched the National Democratic Party of Liberia (NDPL) and announced his run for presidency. He won the elections by 50.9 votes. During his regime, he was responsible for the assassination of many government officials which he deemed corrupt or opposing to him. In December 1989, armed rebel forces, the National Patriotic Front of Liberia (NPFL), led by former government official Charles Taylor began fighting and this quickly became a tribal war between ethnic groups Krahn, Gio and Mano.⁴⁷ This was the beginning of the displacements of many Liberians and the onset of what was to be a series of civil wars and conflicts.

The War and Conflict: December 1989 marked the onset of the rebel insurgency. Although President Doe remained in power, many members of the government were either killed or in exile in other countries. In August 1990, the exiled government representative met in Banjul, Gambia and elected Dr. Amos Sawyer as President of an Interim Government of National Unity (IGNU). On September 10 1990, as a hostage of another rebel infraction led by Prince Johnson, President Doe was killed. In April 1991, Sierra Leone joined the fight after they were intruded by Liberian rebels. The deterioration of the political and economic structure in every imaginable sense was drastic. Over 250,000 Liberians lost their

⁴⁴ Europa World.

⁴⁵ Europa World.

⁴⁶ Europa World.

⁴⁷ Europa World.

lives and many were displaced as refugees and eventually settled in other countries around the world. This breakdown in the government and the society has led to the importance of why the strategic use of transportation is inevitable in building the Liberian economy. The war lasted for 14 years and after nearly two years of peace, in 2005, President Ellen Johnson Sirleaf was elected as President.⁴⁸

Taylor Administration: By December 1989, with a Taylor led insurgency, Taylor self proclaimed himself as President of the National Patriotic Reconstruction Assembly, his own interim administration. Over a period of eight years, Liberia suffered under various leadership, warlords and self appointed leaders. However, in June 1997, there was an election process which Taylor won, leading to his inauguration in August 1997. Taylor and other factions, led the country for a number of years until an interim government was put into place two years prior to President Sirleaf's inauguration. On April 3, 2006 Taylor was charged with and pleaded not guilty to eleven war crimes and crimes against humanity. On April 30th, 2006, The Special Courts of Sierra Leone requested that Taylor trial be administered at the International Criminal Court (ICC) in The Hague, Netherlands. The United Kingdom conceded to allow Taylor to serve prison term in a British prison. Taylor's trial began in The Hague in June 2007. A verdict is expected in mid 2010.⁴⁹

Johnson Sirleaf Administration: President Ellen Johnson-Sirleaf was inaugurated in January 2006. One of her initial task was the rampant corruption in Liberia. She also faced the political pressure from international and intergovernmental groups on what statement she would make regarding Taylor. She reviewed the Liberian Constitution, and employed the Land Commission to address the disputes over land. Many citizens were in legal quarrels over their land, a result of land encroachment by displaced Liberians during the war. She has also initiated programs to address human rights abuse which happened during the war and to prosecute at large perpetrators now living in Liberia. While there were UN sanctions prior to her presidency, because of her international esteem and commitment to stability and humanity, the UN has lifted its sanctions. The logging ban expired in 2007, the diamond ban was rescinded in 2007 and the arms embargo remains in place. Under her administration, the security condition has remained peaceful, free of disruption and major violence, however, a concern at stake is the threats from the high number of un-employed ex-combatants, most of whom are also uneducated. "The election of Johnson-Sirleaf to the presidency was widely welcomed by the international community, and Liberia's relations with the US and other major aid donors have improved dramatically. President George W. Bush awarded Johnson-Sirleaf the Presidential Medal of Freedom in November 2007 and paid a visit to Liberia in February 2008, the first by a US President in 30 years. US Secretary of State Hillary R. Clinton visited Liberia in August 2009."⁵⁰ EuropaWorld also reported that she has achieved a competent administration, resolved many problems produced by the war, secured the lifting of UN timber and diamond embargos, revived the economy and has held government accountable.⁵¹ Liberia is currently still in a challenged state for economic development and sustainability. As the

⁴⁸ Europa World.

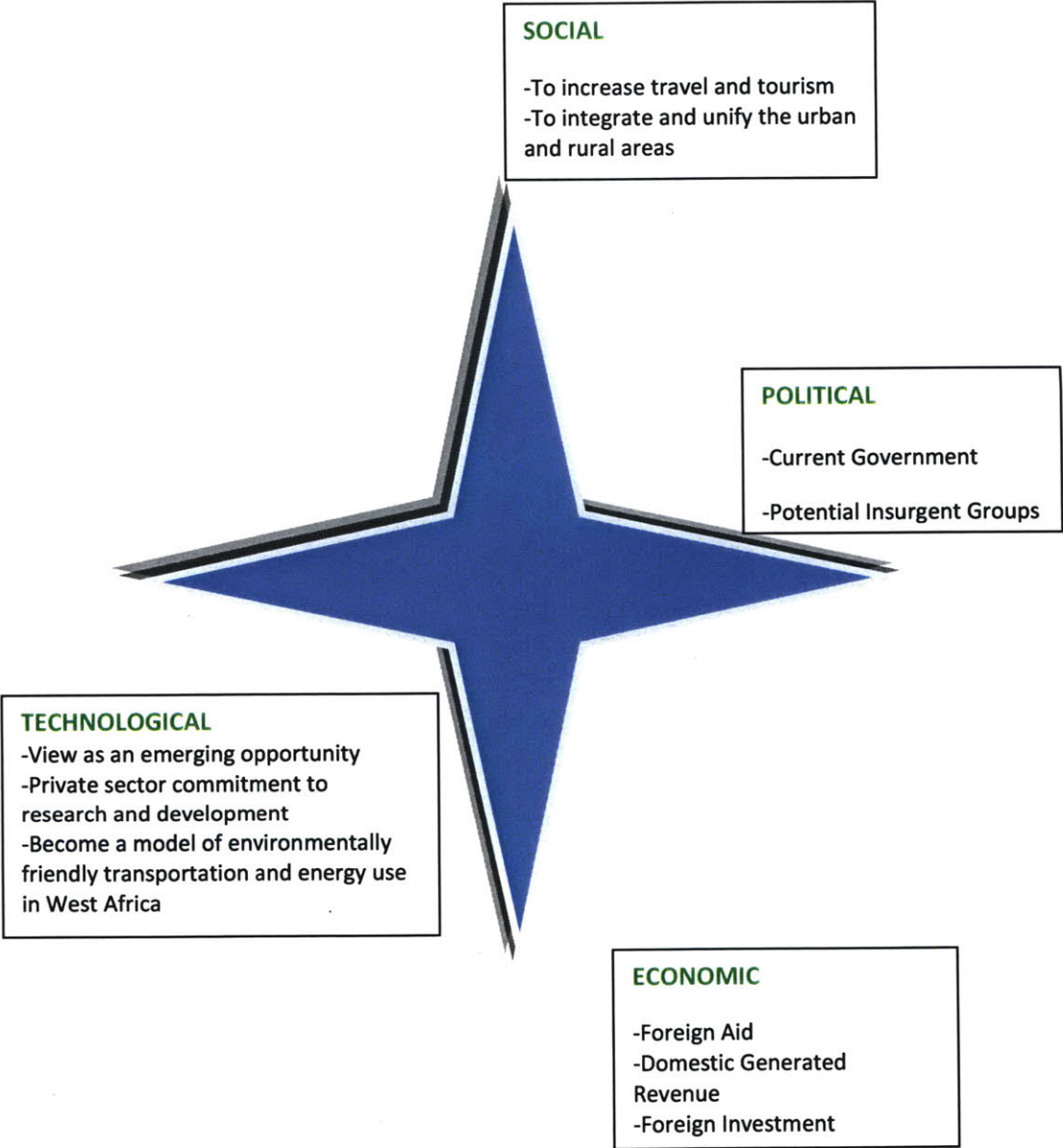
⁴⁹ Europa World.

⁵⁰ Europa World.

⁵¹ Europa World.

President lays out her plans, she believes that the Liberian people, in country and abroad, must strive to work hard and collectively dream to make Liberia's success a reality.

Lone Star Framework: the STEP analysis has examined Liberia's macro elements. As we strive to rebuild the country, these external factors could be viewed as outside of the control of the government and its citizens. To help blend these factors with exponents manageable by all stakeholders, let us examine the Lone Star Framework which incorporates the STEP elements (Figure 3).



The Lone Star framework incorporating STEP analysis, by Ellen Y. Kwame Corkrum

SOCIAL

- **To Increase Travel and Tourism-** Will increase and could be a source of substantial revenue for the country. In the absence of usable roads, other sectors of the transport sector such as air travel and shipping are impeded. Investors in the travel industry will assess all aspects of transportation when trying to determine entry into the country. This is an important key to opening up tourism in Liberia.
- **Integrate and unify the urban area with the interior-** Liberia has long had a unification burden. The settlement of the Americo Liberians created a divide and history shows that despite unification policies, this has been a failed agenda among the people. If there was any benefit as a result of the civil war, that benefit would be the compelled integration of all citizens as they struggled together and escaped to foreign countries usually under the same refugee status. The status of refugee in another country did not take into account a Liberian tribal make-up. This fortunately has brought forth greater integration than any other time in our history. To further enhance this, as many Liberians return to their homeland, roads will open up mobility to all and allow citizens from the interior to easily transfer their goods to Monrovia and other parts of the country for sale. This spirit of promoting entrepreneurship and self sufficiency may be the vital element needed to set the stage for income equality.

TECHNOLOGICAL

- **View as an emerging opportunity-** Despite the techniques to be employed in building the transportation sector; this can be an emerging opportunity for Liberians. From the basic engineering style to what may be the most sophisticated, the young population stands to benefit the most as they can be incorporated into this and trained to meet the labor demand.
- **Private Sector commitment to Research and Development-** Private Firms, who are now investing or extracting natural resources out of Liberia, should commit to advancing study in not just their particular sector of monetary interest, but to research and development which will empower various aspects of the country to include transportation. For example, if Firestone Rubber Company is able to employ the tactics to keep Harbel Port in safe operations, those same tactics can be employed at Freeport. This can be easily accomplished by Firestone partnering up the Liberian Government. This initiative along with other innovative approaches, benefits Firestone as well.
- **Become a model of environmentally friendly transportation and energy use in West Africa-** As Liberians import cars and other goods, especially generators, there must be regulations to control energy conservation and promote environmental awareness.

ECONOMIC

- **Foreign Aid-** The influx of foreign aid may be the greatest resource the Government has to allocate towards building and maintaining the roads and other transportation sector. Visual

results of how this money is allocated and spent will generate more donor willingness. How much more visible can this be than through enhanced security and improvements at Roberts International Airport and in building the roads. The restoration of the port also signifies our openness to trade rapidly as majority of imported and exported goods are moved through the port.

- **Domestic generated revenue-** While the Government could generate additional tax revenue from its citizens, this is a bit more complex for Liberia as majority of the population are unemployed; hence unable to pay income tax or do not own homes and cannot pay real estate tax. By opening up avenues for education and employment through transport accessibility, more Liberians will be able to provide not only for their selves but to tax revenue generated system.
- **Foreign Investment-** We must establish and promote our core competencies. By so doing, we will invite foreign investors. Prior to the war, foreigners heavily invested in the country. This time around, with the widespread displacement of Liberians, not only will foreign investors be attracted to Liberia, but more Liberians, despite ethnic group, will be able to return to the country and invest in their home land. This is significant, because citizens are more likely to invest for the long term, where as foreigners may be looking to extract, earn a profit and move on.

POLITICAL

- **Current Government-** The current Government has made many strides to rebuild the country. The administration has had to pick up from a state of emergency to bring Liberia back to a developing state. As we continue to make progression, Liberians must understand the significance of their democratic power to ensure that the welfare of rebuilding and equality among all is at the forefront.
- **Potential Insurgent Groups-** As with any country recovering from war, the idle mind of the insurgent groups, unemployed ex-combatants, remains a threat. To combat this effectively and timely, we must take strides to improve access to education and employment right away. Given a choice, Liberians prefer to improve their quality of life and provide for their families. The war is over, and citizens prefer to leave that era behind. It is time for increase mobility around the country, allowing each citizen the right to market.

The Power/Dynamism Matrix is used here to further analyze and recognize the position of stake holders. (Table 4)

		DYNAMISM	
		LOW	HIGH
P O W E R	LOW	Fewer Problems: Local Citizens, Local and Abroad	Unpredictable, but Manageable: Current Stability of Government and Upcoming Elections
	HIGH	Powerful but Predictable: Private Investment Firms within the country and seeking entry	Greatest Danger: Potential Insurgent Groups Against the Government/Laws

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Recommendations:

Liberia must move forward with development, particularly in the improvement of the transportation sector. While segments within this sector were on par with other African countries, the civil war did not just destroyed the transport sector, it also deflated Liberia’s stance among peer nations. The state of this sector is now even more critical than pre-war era. The Liberian government transportation goal “is to improve the Liberian transport sector through policy, systems and infrastructure development that create access to reliable, affordable and efficient services.”⁵³ To achieve this, there must be a valid effort to unification/ synchronization of the various modes with the hope of understanding its comprehensive impact on the nation’s developmental goals. The Government must take an integrated approach to developing the country’s transport services so that there is greater connectivity among the transport systems: rail, water, air and roads. In addition, the Government must work to improve the country transport infrastructure to make it accessible and affordable to the poor. Liberia currently has about 6% or 700km of its 10,600km of public roads that are paved, and most of this is still damaged. The destruction which occurred during the war collapsed this infrastructure. Further, the lack of rebuilding and maintenance has crippled this significantly. In order to rebuild some critical access roads, linkages

⁵² 12 Manage The Executive Fast Track, "Stakeholder Mapping," 12 Manage, http://www.12manage.com/methods_stakeholder_mapping.html (Format for the table is from this website, but content is my own).

⁵³ International Monetary Fund.

from rural to urban centers, Liberia will need to invest a substantial amount of capital over the next few years. While government leaders can push for building new roads, they must also commit to the preservation of existing roads. The return and benefits to the citizens of this rebuilding will provide immediate benefits to the viability of the economy, and will also help with repatriation of people from overly populated urban centers back to the rural areas where they can once again begin to engage in farming activities, and lessen the enormous strain on social services of an overpopulated capital city. To this, I recommend the allocation of funding to the rebuilding of existing roads ahead of building new roads.

As Liberia develops policies and action plans to improve transport infrastructure and open her doors to global trade, the various modes in the transport industry must be realigned and restructured. The path of recovery from the civil war, and a look ahead to become a global economic competitor must encompass sights on improved mobility of goods such as the resources for export and agriculture produce for internal consumption. The criticality of this also embodies one of the country's goals of unification of all tribes and ethnic groups.

A structural look at the logistics and improvement development plan

The Government needs to assemble a team to be responsible for developing and implementing the transportation strategic growth plan. At a minimum, the team should include technical experts, executive authority, and institutional competence. The technical experts will conduct the daily implementation of innovative tactics to physically improve and build the transportation segments. Skilled Engineers, architects, and developers will carry out this plan. Liberia must recruit these professionals through various channels to include trained Liberians and trained foreign professionals, brought into country and compensated accordingly to commensurate with their skill sets globally. This is important because to implement this action plan rapidly and efficiently, there must be a comparable incentive for those accomplishing the tasks.

The Executive authority/program managers will set up and run the logistics and management of the various teams. The layout of responsibilities and organizational structure of each team will be defined by the executive authority. A clear understanding of roles, expectations, project blueprints, timeframe and completion dates are essential for proficient and timely execution of the infrastructure development and completion.

Liberia's goals in this sector, while already defined, would be curtailed to be managed in the said timeframe as determined by the program managers. Maintenance and allocation of capital resources will be within the scope of this body; hence they must have executive power, independent of the government to determine the best practices and delivery of funds to high value projects. A system of checks and balances must be practiced; with no one team or individual holding autonomy on the carrying out of funds and a system of strict accounting by an outside body must be employed. This encourages accountability and integrity within and among the teams.

Institutional framework:

The governing body must implement policies where portions of taxes paid would be allocated to rebuilding and maintaining the transportation sector. Once adequate roads have been built, even a portion of these roads, a toll system should be set up along major highways. The funds can be set aside for maintenance. When companies seek to extract and export Liberia's natural resource, the government should include a surcharge or a tax increase to their contract bid for the rebuilding and maintenance of the transportation sector. While the government does not practice earmarking taxes for a particular project, the urgency of building roads as a jumpstart to the development and sustainability

of Liberia should be considered and quickly implemented to open up avenues to generate capital. Bidding to do the repair work by private external companies must be encouraged. Additionally, the government must use taxes paid by foreign companies working on transport projects for improvements to the education sector. . This is imperative because, while Liberia should encourage the use of foreign labor in the virgin stages of development, contribution to the education sector must be paramount as this will add to the accessibility of skilled workers in Liberia. Eventually, there will be a pool of qualified Liberians to take control and ownership in improving the country's roads and other modes of transportation. Concurrently, this will serve as a source of income for these citizens.

The Liberian Government must decide how she will commit to a continuous and sustainable source of funding for the transportation sector revitalization and rebuilding. At the moment, the donor funds are plentiful with the influx of goodwill, but this is most sustainable long-term. While the current administration has worked hard to reduce the country's debt, the road to recovery is contingent and highly reliant on not just repairing and building roads, but also on how quickly these roads are restored. In order to advance growth, development and provide the necessary impetus for employment, education, and healthcare, there must be adequate access between the rural and urban centers. To this, I recommend the structuring of a proposal to obtain the capital requirements to renovate, rebuild and maintain the country's road network.

It appears to be more common for governments and other organizations to subsidize the social agendas of a society such as healthcare and education at the expense of the transport sector which is just as critical and in some cases more immediate, especially if other agendas are to be implemented for all. In Liberia, while social services have deteriorated and are in dire need of reform and financial support, the transportation industry, particularly roads must be addressed with the same sense of urgency and placed in the same immediate social category. This is critical, as improvements in the transport sector will provide accessibility for those in the rural areas to markets where they can sell their produce and goods, and to cities where there is better medical and educational services. Healthcare practitioners will be able to travel more frequently to the interior; teachers will easily commute to serve the youth in the interior—desperately in need of structured and ample education. Additionally, accessible roads will open up a greater avenue of trade and improve the quality of life for many poor Liberians.

Going Green

Given the global push to be environmental conscious citizens, governments, especially those at developmental junctures, are in a great position to implement policies which parallels being "green". While most may view this as an expensive proposition, the benefits are beyond measure. Not only should Liberia rebuild and expand new roads and other means of transportation, Liberia must assert herself as a global leader in reducing pollution. As the transport sector is advanced in Liberia, I make the following recommendations:

- a. All imported cars, new and used must be fitted with a catalytic converter. This will reduce the contaminants of emissions from the combustion engines. All generators, especially given that this is one of the primary sources of power in the country, must also be fitted with catalytic converters. As the country develops, we must be aware of our commitment and contribution to the environmentalism. To dispel the notion expected from those who may see this as too expensive an approach, our obligation as global citizens makes it imperative that we address this

issue one nation at a time. There are donors currently providing for the rebuilding of Liberia. A sensible and responsible approach must be undertaken for the benefit of all. A bigger perspective is to bring Liberia to the world stage not just as a country which recovered from war, but also as a model for other nations who too must retrofit and display actions consistent with environmental respect.

- b. A recycling initiative must be in place, and the transport sector must be a participant. The import of tires, especially used tires is a profitable market in Liberia. While tires are patched and continuously reused, when they do complete their lifecycle, they must be disposed of properly, and this can be accomplished through recycling. Firestone Rubber Company can spearhead this initiative and ensure that this is an aspect of their returns to the nation as part of their ability to extract rubber from Liberia. A recycling plant also provides additional employment opportunities for the locals and the source of funding is already present. To expand on recycling further, Liberia must approach this with all waste material. A proper innovative approach will lead to an additional source of energy through the use of recycled materials. Disposal of material must be through proper processes and conform to global environmental regulations.
- c. Biking must be encouraged and to improve safety measures, bike lanes must be built. Motorists and bikers, especially given the limited roads, must not compete for adequate space. This has to be highly emphasized because the country is rebuilding and part of this is to provide the citizens with an increased sense of security in their daily lives. To encourage biking, in addition to the safety bike lanes, the government, donors, or investors would have to import durable bikes to be sold at a subsidized price. This will be important for at least, the next five years, as society gets used to this concept and other developmental undertakings are completed. As this and other sectors take actionable strides to grow, the employment opportunities once increased, will reduced the need for a subsidized bike program.

Exploring the contribution of other Liberians

There are thousands of Liberians living outside of the country and since the displacements due to the civil war, this number increased drastically. As many of us ponder how we can contribute to the redevelopment of our country, we must evaluate our professional competence and inner desire for a greater good. While most of us are professionals in fields other than government policy and implementation, we no doubt bring a valuable piece to the growth of our country. We can play the role of technical experts, business advisors or simply be a role model for the youth who desperately need a sight to funnel their hopes through. A contributing advisor, who is also dedicated to the rebuilding of the transport sector, is Mr. Andre Patrick Pope. Mr. Pope, a Liberian and an economist who currently resides in Atlanta, Georgia states that “for Liberia to utilize the transport sector as a vehicle for economic development there must be a legislative act for the realignment of the Transportation Ministry and unification of the following sectors:

Civil Aviation Authority (CAA) – will regulate Liberia’s civil aviation and commercial airline activities. The CAA then becomes the chief policy agency on Liberia domestic and international civil aviation sector. On the domestic front, the CAA will develop prudent policies on air transport, aviation safety, airports and airspace. On the international front, the CAA will focus on international air transport and dealings with

international organizations and other governments, international and on governmental groups. The CAA would insure the management of our airports and aircrafts in a manner that is safe with efficient services to the consumers, and in the interest of the country and the general public.

National Maritime Authority (NMA) – much like the CAA, the NMA will have the responsibility to help develop and support Liberia’s marine transportation system and in the process help drive the facilities, economic and national security needs. The NMA would also be responsible to provide a shipping and seafarers administration support service, manage the registration of ships, revitalize the National Port Authority, supervise a coastal patrol service, manage vessel traffic including navigation aids and provide lighthouse services. The head of the Maritime Authority appoints the heads of the various seaports and manage the maritime fund program which would effectively end the Maritime Bureau as a stand alone entity. This means that the Maritime Bureau becomes a function within this new agency.

Liberia Transit Authority (LTA) would strive to provide reasonable transit service for all. All transit systems would provide cost effective means of mobility for people unable to operate a motor vehicle because of personal and financial reasons, disability and age. These transit services will help people get to schools, hospitals, work, etc. The head of the LTA appoints the heads of the MTA and similar companies and helps oversee their operations.

National Railway Authority (NRA) - The NRA would enforce: rail safety regulations, manage railroad policies and programs, and provide for the establishment of a railroad passenger service similar to the *red bus* that operated between Yekepa and Buchanan, and support of all national rail transportation activities in the country.”⁵⁴

I concur with Mr. Pope’s recommendations as an approach which will benefit and greatly serve the population and the restructuring of this sector. In addition, once Liberia has created and implemented a successful policy and demonstrated operational result, this unification of the transport sector can be revisited. Only at that time would I suggest that the government look to assign self-governing roles to each sub transport agency. Additionally, Liberia must emulate successful models from nations who too once faced similar obstacles and found thriving results.

Timeline

In November 2010, Liberians will go to the polls to cast their votes for a new President. With every presidential term comes a new set of policies to be instituted. As Liberians embark on another executive era of post war, the next five year period will no doubt be a marking stage to evaluate the frameworks and allocation of donated and revenue generated dollars. To this, I recommend the next five years as a measuring time-line to examine and execute the transportation action plan. The country must keep the forward momentum and show results; otherwise a loss of hope will likely overtake the young minds that depend on this improvement as a tool for advancement. Five years is easily quantifiable with a vision and end result being foreseeable. The parties involved in the action plans for improving the transportation infrastructure can segment this period into six months or yearly increments. In some

⁵⁴ Andre Pope, “Unifying Liberia’s transport Sector: A Policy Approach to Economic Development,” Liberian Online, <http://www.liberianonline.com/modules.php?name=News&file=article&sid=1171&mode=thread&order=0&thold=0>.

instances, a 90 to 180 day period will be necessary to produce rapid results and take advantage of short term funding and commitments.

Contingency Plan

A contingency plan for Liberia may need several layers, especially given the recent history of a civil war and the limitations to recovery. Yet, Liberia has shown significant progress in pulling through, and this is most significant in the reestablishment of a democratic government and the resurrection of law and order. With this success, it is still critical to consider a contingent approach to ensure that the transportation infrastructure is rapidly rebuilt which will in turn ensure success in various other sectors of the economy. In the absence of advanced technology and increased funding to build roads, Liberians must:

- a. Organize teams within communities to tackle and build roads, one street at a time within their neighborhoods. Citizens will use an archaic style to build their roads by using physical labor, tools and necessary material. The use of heavy equipment will shorten this, but in the absence of this, and also as a means of employment, citizens can build roads manually and receive compensation based on a budget set by either the government or a private entrepreneur looking to not only develop the country, but to provide employment and manual skill training. In the presence of equipment and limited funding to be used for major roads, citizens can still apply this to build interior roads. This will help expedite transport of their goods to be sold in the markets in Monrovia. Additionally, this is beneficial because it gives the citizens a sense of ownership and pride in their roads and greater incentive to maintain the roads by using the same means in which they built the roads. This actionable step also restores the hope of citizens who feel they have been waiting for economical intervention and have not seen an outcome.
- b. Consult with engineers about basic knowledge on how to build roads and apply the principles. Liberians have long built dirt roads and if this process is enhanced to reduce or eliminate the flow and settling of water unto the roads, particularly during the rainy season, this could grant more access to and from the interior. The engineers can be provided through educational institutions around the world from civil engineering graduate programs. The Liberian President holds enough world recognition to attract these advanced study engineering students into the country on a project basis for a 90 to 180 day period at a time. The graduate students can teach other eager minds how to build dirt and gravel roads efficiently and free of standing water.
- c. In the absence of executing the primary plan and in fact, implementing some of the suggestions in the contingency plan, Liberia really does not have a clear path to recover and rebuild the economy. To this, I recommend that there is no room for failure, or additional backups as contingency plans. The criticality of building this infrastructure is so immense that leaders of the country, both government and private, must work together to make this an actionable priority at once. In the current absence of required funding, contingency plans A and B must take shape now.

Conclusion

The move to escape poverty and introduce economic viability is a core component of a developing nation's transportation phase. The Liberian Government has worked hard to develop guidelines for reducing poverty and regaining democratic stability. The nation is peaceful and has the support of many goodwill organizations, international government agencies and some financial donations. Liberia is once again on the map, this time not as a country of civil conflict and humanitarian assaults, but rather as a model nation. We are a model nation because:

1. While then US Senator Hillary Clinton stated "and although we weren't able to shatter that highest, hardest glass ceiling this time, thanks to you, it's got 18 million cracks in it,"⁵⁵ the people in Liberia had shattered the glass ceiling on the exact same premise, the democratic election of Africa's first Woman President. When this can happen on the African continent, the pioneer of such undertaking, Liberia must be and is prepared to have a global impact.
2. The thrust which destroyed us long before the war and even during the war must now bring us together. For over a century we discriminated against each other because of ties to the United States through slavery and freedom found in Liberia versus the original citizens who remained on the continent and did not endure the misery of slavery. When humans can discriminate against their own, especially on such premise, there will be war down the line. This has come and passed. The unification proposals put on paper by our previous leaders, but rarely practiced is what we must build on now as one nation. We have watched the brutality of each other by rebel insurgencies, and this brutality carried no ethnic stamp. We have fled to foreign countries as refugees and today our children all attend the same elite universities without being allocated a spot based on their Liberian ethnicities, but rather on the merit of their scholarly advancement and their conduct in society at-large. Our war must leave a positive mark; otherwise the blood of those who died will be in vain. Our war fought must finally bring about harmony as we work together to succeed and thrive as one nation. We must lead the way for other nations to emulate. Despite our daunting economic conditions and failed infrastructure, we Liberians, united by tribes, creed, gender, skin color, educational level, financial status, and even physical handicap caused by a war weapon, will bring technological advancement to Liberia and set the stage where every aspect of our transport sector will be developed and will enhance all aspects of our economy making us the finest in Africa and one of the best in the world.

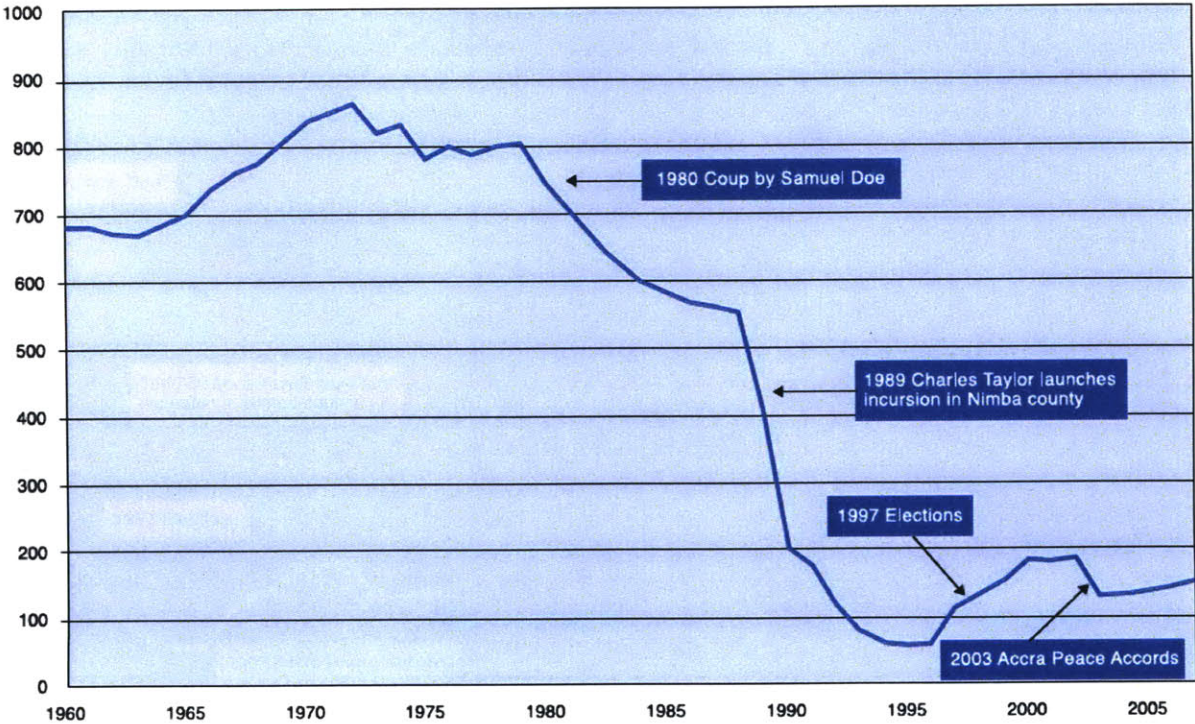
As Liberia steps ahead into the future, let us examine how we can each play a role and render service in our particular area of expertise. Together we will identify and provide recommendations to the executive power on the strategic role of our area of specialty in enhancing the economic and social development of post-war Liberia.

Liberia is the land of my birth and the first country where African Americans could dream of running their own nation. Yesterday I flew; today and onward, I will work diligently to ensure that a century from now, the children of Liberia and the world will know that I made a difference in the lives of many who dare to dream. EYKC

⁵⁵ Anne E. Kornblut, "Clinton Urges Backers to Look to November," *Washington Post*: A01 (June 8, 2008).

EXHIBITS

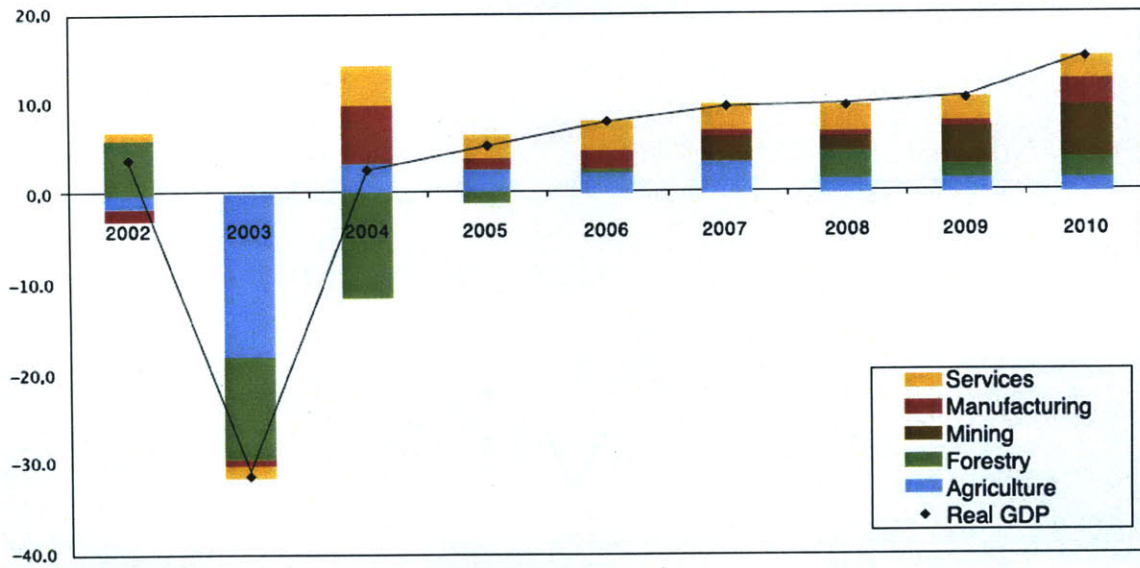
Figure 1 Evolution of GDP per capita, 1960-2007 (constant 2004 US\$)



Source: World Bank, World Development Indicators

Figure 2

Liberia: Sectoral Contribution to Real GDP Growth, 2002-10



Sources: Government and IMF staff projections

Table 1

	1987	2005	Decline (%)
Real GDP	1167.0	401.7	65.6
Agriculture & fisheries	368.7	177.9	51.8
Rubber	59.9	41.5	30.7
Coffee	0.9	0.1	90.8
Cocoa	5.9	1.2	79.5
Rice	117.1	28.4	75.7
Cassava	57.4	44.0	23.3
Other	127.6	62.7	50.9
Forestry	56.6	59.0	-4.3
Logs & timber	34.4	0.0	100.0
Charcoal & wood	22.2	59.0	-166.2
Mining & panning	124.9	0.7	99.4
Iron ore	116.2	0.0	100.0
Other	8.7	0.7	91.9
Manufacturing	86.9	51.7	40.5
Cement	23.0	14.9	35.5
Beverages & beer	52.5	33.7	35.9
Other	11.4	3.2	71.8
Services	529.9	112.3	78.8
Electricity & water	18.2	2.7	85.3
Construction	39.0	8.0	79.4
Trade, hotels, etc	71.5	19.2	73.1
Transportation & communication	89.5	27.6	69.2
Financial institutions	141.8	10.0	93.0
Government services	129.0	31.5	75.6
Other services	40.9	13.3	67.4

Source: Government of Liberia and IMF staff estimates

Table 2

	2007 Est.	2008 Proj.	2009 Proj.	2010 Proj.	2011 Proj.
	Annual percentage change				
Real GDP	9.5	9.6	10.3	14.8	12.3
<i>Of which:</i>					
Agriculture & fisheries	7.3	3.6	3.7	3.8	3.8
Forestry	1.0	22.1	10.0	15.6	14.9
Mining & panning	1614.6	73.5	106.4	78.2	51.1
Manufacturing	3.9	3.9	3.9	24.3	5.0
Services	10.4	9.5	9.0	8.2	8.2
	Percent share of total real GDP				
Real GDP	100.0	100.0	100.0	100.0	100.0
<i>Of which:</i>					
Agriculture & fisheries	42.0	39.8	37.4	33.8	31.2
Forestry	12.9	14.4	14.4	14.5	14.8
Mining & panning	2.5	4.0	7.5	11.7	15.8
Manufacturing	13.2	12.5	11.8	12.7	11.9
Services	29.3	29.3	28.9	27.3	26.3

Source: Government of Liberia and IMF staff estimates

Table 3

Principal Commodities (US \$ million, estimates)

Imports c.i.f.	2005	2006	2007 [*]
Food and live animals	68.2	117.0	130.9
Rice	17.2	62.4	60.0
Beverages and tobacco	8.4	13.7	15.7
Mineral fuels and lubricants	28.9	10.6	5.7
Petroleum	91.0	122.0	105.9
Chemicals and related products	9.2	23.6	20.4
Basic manufactures	27.3	48.7	70.7
Machinery and transport equipment	32.6	57.3	97.4
Miscellaneous manufactured articles	30.3	54.4	40.6
Total (incl. others)	309.9	466.7	501.5
Exports f.o.b.	2005	2006	2007 [*]
Rubber	126.7	150.1	183.9
Cocoa beans and coffee	0.3	0.2	2.2
Diamonds	—	—	2.7
Gold	—	0.1	5.5
Iron ore	—	1.0	0.5
Total (incl. others)	131.3	157.9	200.2

* Provisional⁵⁶

⁵⁶ Europa Online, "External Trade (Liberia)," Europa World Online, London, Routledge. Massachusetts Institute of Technology (MIT), <http://www.europaworld.com/entry/lr.ss.61>

Bibliography

- 12 Manage The Executive Fast Track. "Stakeholder Mapping." 12 Manage.
http://www.12manage.com/methods_stakeholder_mapping.html (accessed April 30th).
- Europa Online. "External Trade (Liberia)." Europa World Online. London, Routledge. Massachusetts Institute of Technology (MIT). <http://www.europaworld.com/entry/lr.ss.61> (accessed April 30th).
Europa World. Europa World Online. Massachusetts Institute of Technology (MIT).
<http://www.europaworld.com> (accessed April 30th).
- Firestone Natural Rubber Company. "Resources-Factoids." Firestone Natural Rubber Company.
<http://www.firestonenaturalrubber.com/factoids.htm> (accessed April 30th).
- Global Development: Views from the Center. "Liberia Cuts its Debt with \$1.2 Billion Buy-Back at 97 Percent Discount." Center for Global Development.
<http://blogs.cgdev.org/globaldevelopment/2009/04/liberia-cuts-its-debt-with-12-billion-buy-back-at-97-percent-discount.php> (accessed April 30th).
- Independent research and practical ideas for global prosperity. "Scott Family Liberia Fellows." Center for Global Development. http://www.cgdev.org/section/initiatives_active/scottfellows (accessed April 30th).
- International Monetary Fund. "Liberia: Poverty Reduction Strategy Paper." *IMF Country Report*, no. 08/219 (2008). http://planipolis.iiep.unesco.org/upload/Liberia/Liberia_PRSP.pdf (accessed May 5th, 2010).
- Kornblut, A.E. "Clinton Urges Backers to Look to November." *Washington Post*: A01 (June 8, 2008).
- Outram, Quentin. "Recent History (Liberia)." Europa World Online. Massachusetts Institute of Technology (MIT). <http://www.europaworld.com/entry/lr.hi> (accessed April 30th, 2010).
- Pope, Andre. "Unifying Liberia's transport Sector: A Policy Approach to Economic Development." Liberian Online.
<http://www.liberianonline.com/modules.php?name=News&file=article&sid=1171&mode=thread&order=0&thold=0> (accessed May 4th).