

CAREER OPPORTUNITIES IN AGRICULTURE

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Invited talk at the 2012 EHED SummerStart Program, University of Liberia, Fendall Campus, 08/01/12

This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Excellence in Higher Education for Liberian Development (EHED) project, USAID Agreement Number 669-A-00-11-00035



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Talk Outline

1. Background
2. Liberia's agricultural endowment
3. Liberian urgent and compelling desirables
4. Role of the Liberian student
5. Seizing the moment
6. Concluding remarks

Background

- I want to start this talk by first clarifying two words:
Career & Employment
- What is Career?
An occupation of choice based on personal interests and preferences --- “you define the scope”
- What is Employment?
An occupation one engages in to make a living --- “terms of employment defines the limits of your scope”

What is Agriculture?

- For this talk we must quickly dispel the notion that Agriculture is simply the cultivation of plants and rearing of animals for food and nutrition. It is far more than this rather limited scope.

What is Agriculture?

- Agriculture in the broadest sense may be defined as
any human activity connected directly or indirectly to the exploitation of plants, animals, fungi, and other environmental components (biotic and abiotic) for food, nutrition, health, fiber, shelter, aesthetic and recreational purposes.
- With this definition it is clear that Agriculture has extensive ramifications, touching so many aspects of our lives.

The Purpose of this Talk

- To broaden the vision of students about Agriculture, expatiate the opportunities, and allow each person to start envisioning which aspect(s) of this very broad field of human endeavor one may consider for a career in the future
- Most of our examples are going to be drawn from the Liberia experience, so that we all can relate very well to the points of discussion.

Liberia: Some Facts and Figures

- Human population (2012): ~3.9 million people
- Annual population growth rate (2011): 2.6%
- GDP (2011): US\$1.2 billion
- Real GDP growth rate (2011): 6.9%
- GDP per capita (2010): US\$500
- Workforce: Agriculture 70%; Industry 15%; Services 2%; Formal Sector Employment ~15%

The 15 Counties

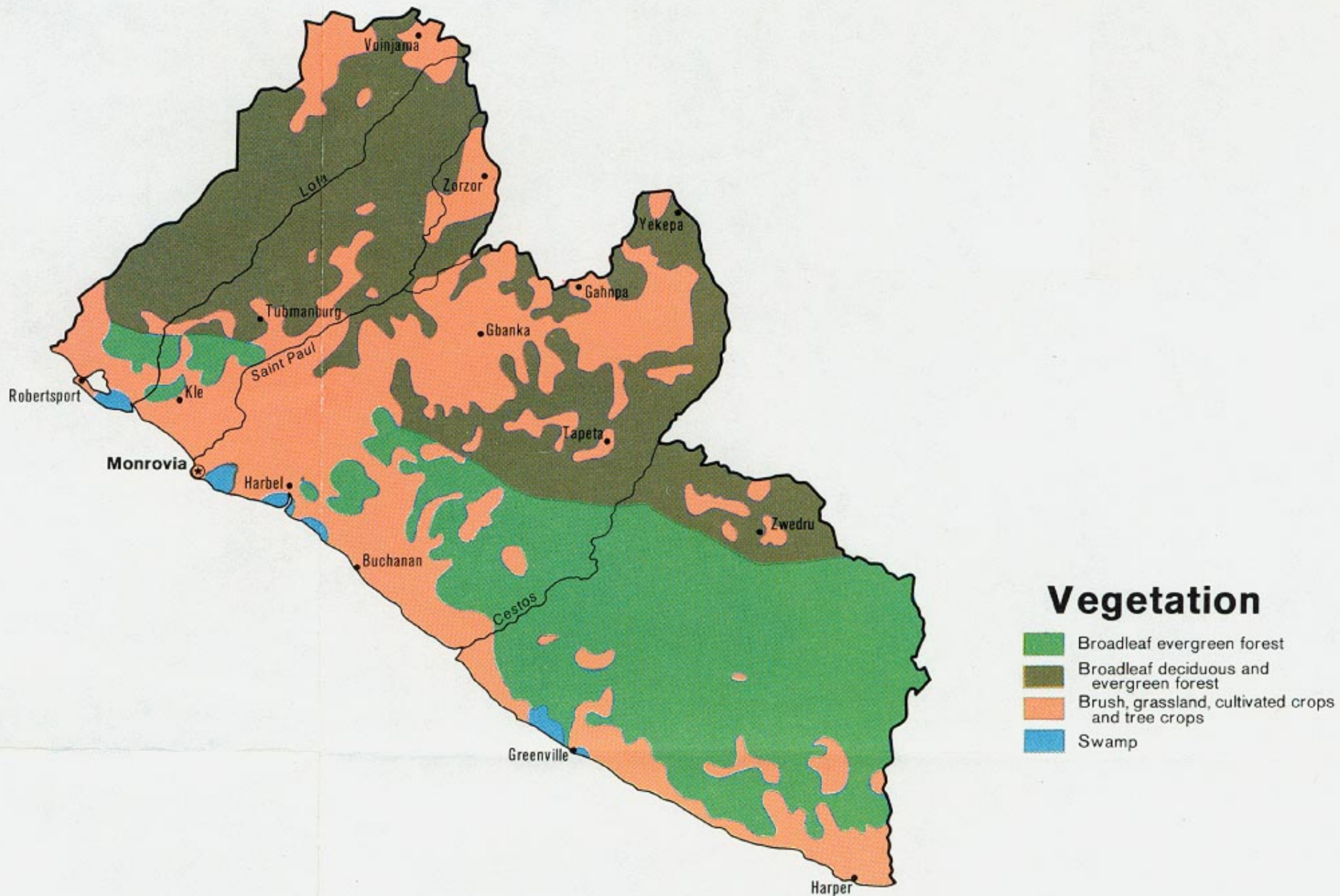
(Monrovia is in Montserrado County, not listed in the map)



http://commons.wikimedia.org/w/index.php?title=File:Disctricts_Lib%C3%A9ria_map.svg&page=1

Liberia: Agricultural Endowment

- Climate: Wet/Moist tropical climate, abundant rain, warm temperature year round, long wet season, short dry season
- Land resources: Total Area: 111,369 km^2 (43,000 mi^2);
 - Terrain: (i) Mangrove swamp/beaches along the coast
 - (ii) Wooded hills and semi-deciduous shrub along immediate interior
 - (iii) Dense tropical forests and plateaus in the interior



Source: Vegetation map of Liberia, 1973,
http://www.marysrosaries.com/collaboration/index.php?title=File:Liberia_vegetation_Map_1973.jpg

Liberia: Water resources

- Renewable water resources per inhabitant: more than 71, 000 m³/year, among the highest in Africa.

(

http://www.fao.org/nr/water/aquastat/countries_regions/liberia/index.stm)

- The main water user is agriculture with 60 million m³ /year (57% of total)

Liberia: Agricultural Endowment contd.

- Crops: Coffee, cocoa, sugarcane, rice, cassava, oil palm, bananas/plantains, citrus, pineapple, sweet potatoes, corn/maize, vegetables (bitter balls, peppers, tomatoes, greens, spices, etc.)
- Livestock: Cattle, sheep, goats, rabbit, poultry, etc.
- Fishery: Enormous opportunity for growth based on available water resources
- Forestry/Natural resources/Wildlife: Enormous potential; Liberia has 40-45% of the West African Forest resources

Liberia: Agricultural Status & Trade

- Current Agricultural status
 - Production = 61% of GDP (in 2009)
 - Net importer of Agricultural products (foods, fiber, building materials, etc.)
- Trade in 2010: Exports US\$207M; Imports US\$551M (Rice 29% of total import)
- Net Import US\$344M

What are Two Urgent and Compelling Desirables in Liberian Agriculture?

- Making Liberia become self sufficient in some agricultural commodities (e.g. rice, oil palm products, cassava , vegetables, etc.), and
- Making Liberia a net exporter of some agricultural commodities (in addition to rubber & timber)
- Liberia has enough natural resources to succeed in the two challenges noted above but some obstacles must be overcome and one of them is **CAREER** choices by the young Liberians

Career Opportunities in Agriculture

- Career opportunities in Liberian Agriculture and elsewhere in Africa may be explored in the following agricultural segments:
- Production Agriculture
 - a) Food Agriculture
 - Non-processed foods (Fresh fruit/vegetables; root & tubers, etc.)
 - Processed foods
 - b) Non-Food Agriculture
 - Non-processed, non-food (Timber, medicinal herbs, other natural products, etc.)
 - Processed, non-food

Career Opportunities in Agriculture, contd.

- Agro-Allied services
 - Research & Development
 - Teaching/Outreach/Extension services
 - Production/Postharvest handling
 - Marketing & Trade (Domestic & International)
 - Regulations & Enforcement
 - Agro-tourism
 - Consultancies

Role of the Liberian Student

- Having studied and understood the Liberian Agricultural landscape, the enterprising student may now envision what aspect he/she has interest in pursuing to advance his/her goal of becoming successful in Agriculture.
- The choice should be yours to decide how you wish to proceed:
- Do you wish to start as an employee (or intern) in your field of interest and later pursue self employment opportunities, so someday you too may become an employer? OR

Role of the Liberian Student

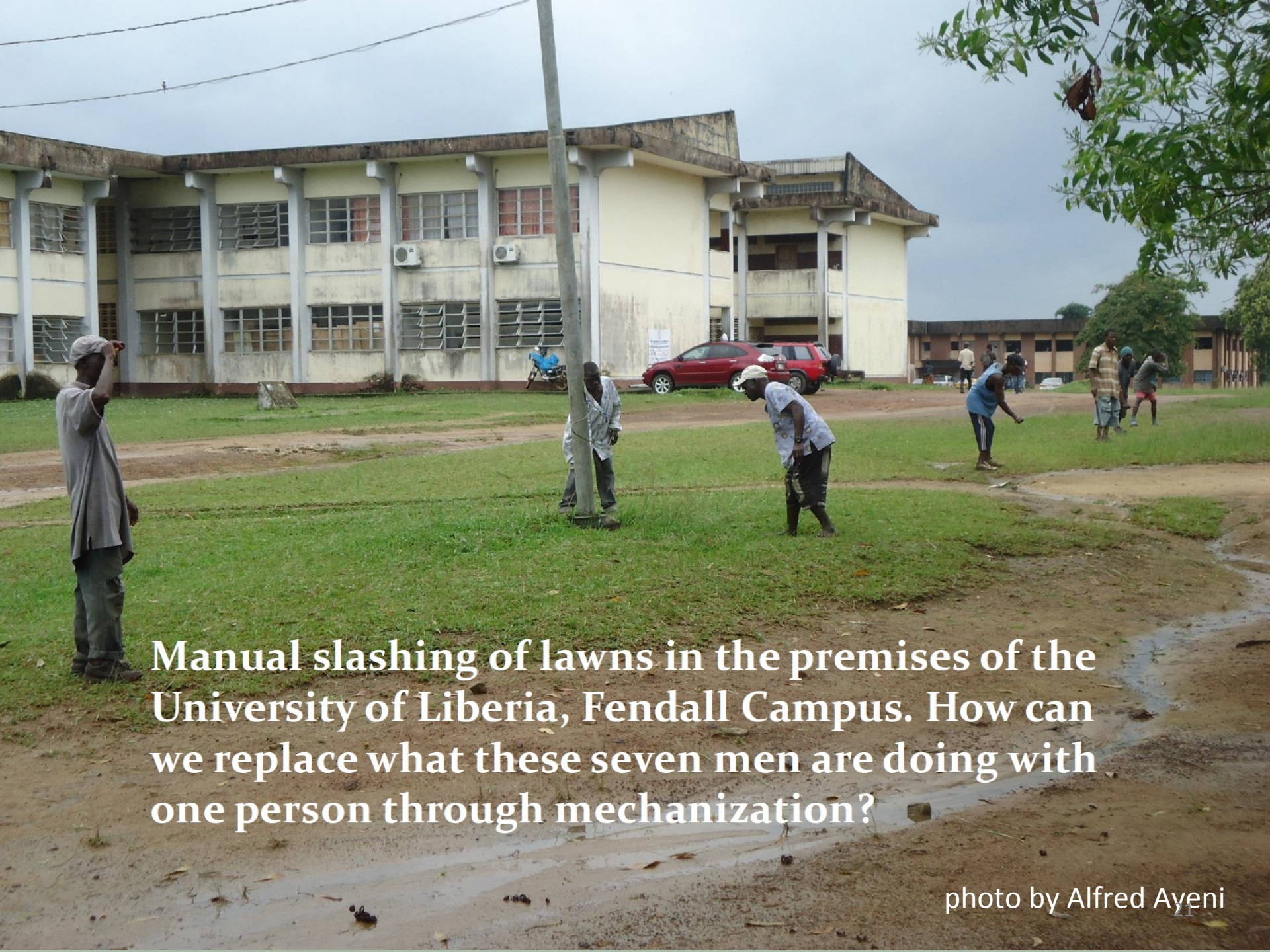
- Do you wish to go into self employment right after graduation? OR
- Do you wish to pursue your career interest as a permanent employee? OR
- Do you wish to combine all possible options (employee/self employed/employer)?
- Whatever your choice, always count the cost, before taking the plunge.

Three Immediate High Impact Potential Career Sectors in Agriculture in Liberia

- For the young enterprising student below are three to think about as career options, out of several:

1.Small/medium scale Agricultural Mechanization

Question: How can we facilitate agricultural practices through mechanization?




Manual slashing of lawns in the premises of the University of Liberia, Fendall Campus. How can we replace what these seven men are doing with one person through mechanization?

photo by Alfred Ayeni

Three Immediate High Impact Potential Career Sectors in Agriculture in Liberia

2. Natural resource resuscitation (e.g. harnessing abandoned oil palm and other fruit orchards)

Can we resuscitate the old plantations so they can start generating some income? There are millions of oil palm trees still producing fruit that rot away all over the country annually while significant amount of vegetable oil is imported annually with hard currency!!!



Healthy oil palm trees such as the ones in this photo are neglected all over Liberia, which are capable of generating significant income if properly rehabilitated

photo by Alfred Ayeni

Three Immediate High Impact Potential Career Sectors in Agriculture in Liberia

3. Arable/vegetable crop intercropping in new rubber and oil palm plantations, etc.

Question: Why is so much land underutilized in newly established rubber plantations across the country in the first 3-4 years?

The space in between the young rubber plants can be effectively utilized for arable/vegetable crop intercropping in those first 3-4 years!!!

Rubber plantation in the early years of establishment. The space between the rubber tree rows may be better utilized through intercropping with arable/vegetable crops until the rubber canopy no longer permits further intercropping.



Trees ForTheFuture

<http://www.flickr.com/photos/plant-trees/6871777228/sizes/o/in/photostream/>

Concluding Remarks

- Liberian Agriculture currently presents significant opportunities for young enterprising Liberians to explore for future careers
- Those who will succeed in Agriculture must be innovative in the application of their intellectual talent to solving existing challenges in self sufficiency and net exportation of agricultural commodities.
- The sky is the limit for those who are willing and able to take the bull by the horns! Do not wait for others to tell you what to do, take the challenge head on yourself!!!
- The ball is in your court --- play it well and play it hard!!!

Questions!

Thank You!!!



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