



United Nations Mission in Liberia  
(UNMIL)

## Rubber Plantations – Special Report on the Environment

### INTRODUCTION

The UNMIL Environment and Natural Resources Unit (ENRU) together with Environmental Protection Agency (EPA) of Liberia participated in the recent assessment missions to several rubber plantations as part of United Nations Rubber Plantations Task Force. In consonance with the Task Force's Terms of Reference, the ENRU and EPA focus was geared towards identifying areas where environmental improvement is necessary at these plantations, in keeping with the wishes of the new Government of Liberia that attributes special importance to the living conditions of Liberians residing in rural areas, especially in rubber plantations.

Several cases of lack of adherence to acceptable environmental protection and occupational health standards, poor living conditions of local populations, among other things were observed. For example, if disposal of waste from rubber procession facilities, maintenance shops and domestic areas are not properly handled, it might lead to pollution of the local environment. Also, plantation managements' lack of adherence to environmental protection and occupational health standards could jeopardize the wellbeing of the local human population.

This report will provide summary of environmental findings from each plantation visited, followed by detailed observations.

ENRU could not participate in the visit to Sinoe and Liberia Agricultural Company (LAC) plantations; however, for LAC plantation, the report included observations from the EPA team that recently conducted an assessment visit to the plantation.

Where possible, information was recorded on the following concerns at the various rubber plantations:

Rubber handling/processing plant

Provision/availability of protective gears

Chemicals used on plantation

Working conditions and safety standards

Plantation pollution and host communities in particular:

- Effect of waste disposal methods
- Effect of waste disposal location

- Knowledge of Environmental Protection and Management Law
- Availability of Environmental Impact Assessment Report
- Availability of Environmental Protection and Management Strategy

Drinking water sources

Hospital/Clinic waste and waste disposal method

Dwelling quarters

Latrines

Generator sites vehicle maintenance shops

Generator sites

Fuel stations and storage

## **FINDINGS**

### **I. Cavalla Plantation**

#### **Overview**

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme. Improper handling of chemical, garbage and sewer was commonly observed. Environmental impact was not assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management to neglect their obligations towards environmental protection or pollution prevention. Workers lack knowledge of environmental protection. The effects of cloned rubber introduced in the plantation to the natural environment are unknown. Inappropriate use of agrochemicals and poor silvicultural practices do not only disrupt the environment but also reduce the level of crop productivity.

#### **Observation/Situation in Detail**

- The human population is very large.
- Generally, adherence to environmental protection and occupational health and safety standards do not seem to be a part of the Cavalla Plantation's current management strategy.
- Improper handling of chemicals used for processing latex..
- There is no knowledge of Environmental Protection and Management Law among the workers.
- According to the Management, there is absolutely no environmental impact assessment (EIA) Report or Environmental Protection and Management Plan.
- The overall living condition of the camp dwellers is very poor.
- There is complete lack of enforcement of environmental laws by the government.
- Provisions in the concession/management agreement which stipulate the protection of the environment in which communities are affected by the company's operations are disregarded.
- Lack of environmental impact assessment report on the activities of the plantation.

- The communities living in and around concession are experiencing inadequate standard of living.
- Coagulum/latex is loosely handled at collection sites
- **Drinking Water Sources:** Clean and safe drinking water is not available for about 90% of the population; existing wells are not safe for drinking. For example, in **Camp IV** there is only one hand pump (most of the people get their drinking water from the shallow nearby stream).
- **Garbage and Sewage Disposal:** the handling of garbage and other wastes is very poor and far below acceptable standards. Solid waste is generally broadcast on the surface of the ground in various locations very close to dwelling places.
- **Bath Houses:** Bath houses are not properly located, as these were seen in the middle of various camps without proper drainage system. Many of the camps lack latrines – as a result, defecation is done on the bare ground in the adjoining bushes and as such, the rain easily washes the faeces into the streams used especially for drinking.
- **Health Center/Clinic:** The Cavalla Hospital needs complete renovation, as well as trained staff. Based on interview the hospital is only receiving nominal support from the Plantation Management. There is no electricity at the hospital and lantern is used at night to attend to patients.

## II. Cocopa Plantation

### Overview

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme. Improper handling of chemical, garbage and sewer was commonly observed. Environmental impact was not assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management to neglect their obligations towards environmental protection or pollution prevention. Environmental Impact from the plantation and its community is rather serious, considering the nearby streams that run adjacent to the plantation, which are being used as the main source of drinking water for the plantation community. Workers lack knowledge of environmental protection. Effect of cloned rubber introduced in the plantation to the natural environment is unknown. Inappropriate use of agrochemicals and poor silvicultural practices do not only disrupt the environment but also reduce the level of crop productivity.

### Observation/Situation in Detail

- The plantation human community is fairly large with a population of about (5,000), consisting of a conglomeration of age categories.
- The landscape is undulating with many deep valleys, many of which are natural water courses/streams. These streams serve as the source of drinking water and water for other domestic uses of the community. Cattle also compete with humans for use of these streams for drinking and bathing.

- Generally, adherence to environmental protection and occupational health standards do not seem to be a part of LIBCO/Cocopa current management strategy.
- The living condition of the camp dwellers is very appalling.
- There is complete lack of enforcement of environmental laws by the government and plantation managers disregard provisions in the concession or management agreements which stipulate the protection of the environment in which communities could become affected by the company's operations.
- Lack of environmental impact assessments on the activities of the plantation.
- The communities living in and around concession are experiencing inadequate standard of living.
- **Drinking Water Sources:** Several of the camps visited do not have clean drinking water sources, especially hand pumps.
- **Garbage and Sewage Disposal:** The handling of garbage and other solid wastes is very poor and far below acceptable standards. Solid waste is generally broadcast on the surface of the ground in various locations very close to dwelling places.
- **Bath Houses:** Bath houses are not properly located.
- **Latrines:** Many of the camps lack latrines – as a result, defecation is done on the bare ground in the adjoining bushes and as such the rain easily wash the faeces into the streams used especially for drinking.
- **Health Center/Clinic:** the septic tank at the health centre which was renovated about eight months is broken and is fill with accumulated water and needs renovation. The latrine is also in a deplorable condition and needs renovation.

### III. Guthrie Rubber Plantation

#### Overview

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme. Improper handling of chemical, garbage and sewer was commonly observed. Environmental impact was not at all assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management to neglect their obligations towards environmental protection and pollution prevention. Workers lack knowledge of environmental protection. Effect of cloned rubber introduced in the plantation to the natural environment is unknown. Inappropriate use of agrochemicals and poor silvicultural practices do not only disrupt the environment but also reduce the level of crop productivity.

#### Observation/Situation in Detail

- Complete lack of knowledge on Environmental Protection and Management Law.
- Environmental Impact Assessment (EIA) Report and Environmental Protection and Management Strategy are not available.

- Adherence to environmental protection and occupational health standards is not a part of Guthrie Plantation management strategy.
- There is complete lack of enforcement of environmental laws by the government and Plantation's Management.
- Provisions in the concession or management agreement which stipulate the protection of the environment are disregarded.
- Inappropriate disposal/handling of chemicals used in the rubber treatment process.
- Solid waste is disposed of at randomly and openly. There are no waste disposal sites.
- Rubber coagulum at weighing site is carelessly or loosely handled, thereby posing hazard to the local environment through the spillage of chemical used for coagulating the latex.

#### **IV. Liberia Agriculture Company (LAC)**

##### **Overview**

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme. Improper handling of chemical was observed. Wastewater coming from processing plant is discharged into the nearby creek. Environmental impact was not assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management to neglect their obligations towards environmental protection or pollution prevention. The effects of cloned rubber introduced in the plantation to the natural environment are unknown. Inappropriate use of agrochemicals leads to environmental degradation.

##### **Observation/Situation in Detail**

- Complete lack of knowledge on Environmental Protection and Management Law.
- Environmental Impact Assessment (EIA) Report and Environmental Protection and Management Plan are not available.
- Adherence to environmental protection and occupational health standards do not seem to be a part of LAC's Rubber Plantation's current management strategy.
- There is complete lack of enforcement of environmental laws by the government and Plantation's Management.
- Inappropriate disposal/handling of chemicals used in the rubber treatment process.
- Large amount of water is used in processing the rubber and the wastewater is poured directly into a major nearby Creek and the current level of pollution is yet to be determined.
- Workers are directly exposed to chemicals/acids used in processing latex.
- Some fragile ecosystems in the area such as the community forests that were formerly used by the local people have been destroyed.

## **V. Firestone**

### **Overview**

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme, although NGOs and international/local media are reporting of their non-compliance. Improper handling of chemical was commonly observed and some areas in the processing plant were filled with the strong odor of ammonia that the workers are having difficulty breathing. Wastewater coming from processing plant is discharged into the adjacent river and was forming bubbles and scum around the discharge site. Environmental impact was not properly assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management to neglect their obligations towards environmental protection or pollution prevention. The plantation's current concession agreement includes the obligation for submitting Environmental Impact Assessment (EIA) and Environmental Management Plan to the Government; however, the team could not confirm whether such submission has been made to the Government. Effect of cloned rubber introduced in the plantation to the natural environment is unknown. Inappropriate use of agrochemicals leads to environmental degradation.

### **Observation/Situation in Detail**

- Complete lack of knowledge on Environmental Protection and Management Law.
- Environmental Impact Assessment (EIA) Report and Environmental Protection and Management Strategy are not available.
- Adherence to environmental protection and occupational health standards do not seem to be a part of Firestone's Rubber Plantation's current management strategy.
- There is complete lack of enforcement of environmental laws by the government and Plantation's Management. As a result, provisions in the concession or management agreement which stipulate the protection of the environment are disregarded.
- Firestone's current concession agreement includes the section that the company is obligated to submit EIA report and Environmental Management Plan to the Government of Liberia within the twelve (12) months of the signing of the agreement. The agreement was signed in April last year (2005) and the EIA and EMP are due accordingly.
- Inappropriate disposal/handling of chemicals used in the rubber treatment process.
- Lots of water is used in processing the rubber and the waste water is poured directly into a major River (Farmington River) and the current level of pollution is yet to be determined.
- Workers are directly exposed to chemicals/acids used in processing latex.
- Firestone's current

## **VI. Salala Plantation**

### **Overview**

Environmental protection and occupational health and safety do not seem to be a part of the plantation's current management scheme. Improper handling of chemical, garbage and sewer was commonly observed. Environmental impact was not at all assessed by the plantation's management, and lack of enforcement of environmental laws by the government has made the management neglect their obligations towards environmental protection or pollution prevention. Workers lack knowledge of environmental protection. Effect of cloned rubber introduced in the plantation to the natural environment is unknown. Inappropriate use of agrochemicals and poor silvicultural practices do not only disrupt the environment but also reduce the level of crop productivity.

### **Observation/Situation in Detail**

- Salala Rubber Plantation is one of the smallest plantations among those visited.
- Complete lack of knowledge on Environmental Protection and Management Law.
- Environmental Impact Assessment (EIA) Report and Environmental Protection and Management Strategy not available.
- Adherence to environmental protection and occupational health standards do not seem to be a part of the Plantation's current management strategy.
- There is complete lack of enforcement of environmental laws by the government and Plantation's Management.
- Provisions in the concession or management agreement which stipulate the protection of the environment are disregarded.
- Inappropriate disposal/handling of chemicals used in the rubber treatment process.
- Inadequate number of hand pumps for safe drinking water - most of the local population is forced to drink from the nearby streams.
- The main Plantation Clinic lacks (safe drinking water) hand pump or well.
- Inadequate number of latrines.
- Most of the living quarters are in dilapidated condition.

### **RECOMMENDATIONS**

1. Environmental protection, management, safety and health provisions which are enshrined in the Environment Protection and Management Law of the Republic of Liberia should be adhered to by all rubber concessions;
2. Plantation managements should provide appropriate measure, such as wastewater treatment facility, and odor control system to prevent environmental pollution in and around the plantation and its adjoining community;

3. Government of Liberia should monitor and enforce the Environmental Protection and Management Law to ensure the plantation management's compliance to the law;
4. Rubber Plantation management should provide appropriate basic services, including latrines and waste disposal mechanism to ensure environmental protection;
5. Rubber plantation management should provide safety equipment and personal protective gears (gloves, masks, etc.) and training on proper handling of chemicals for employees.
6. Appropriate management for the rubber plants need to be planned and implemented in order to maximize the economic value of the plantation.