



LIBERIA- Experience of Liberia with Forest Governance And Tracking Technologies

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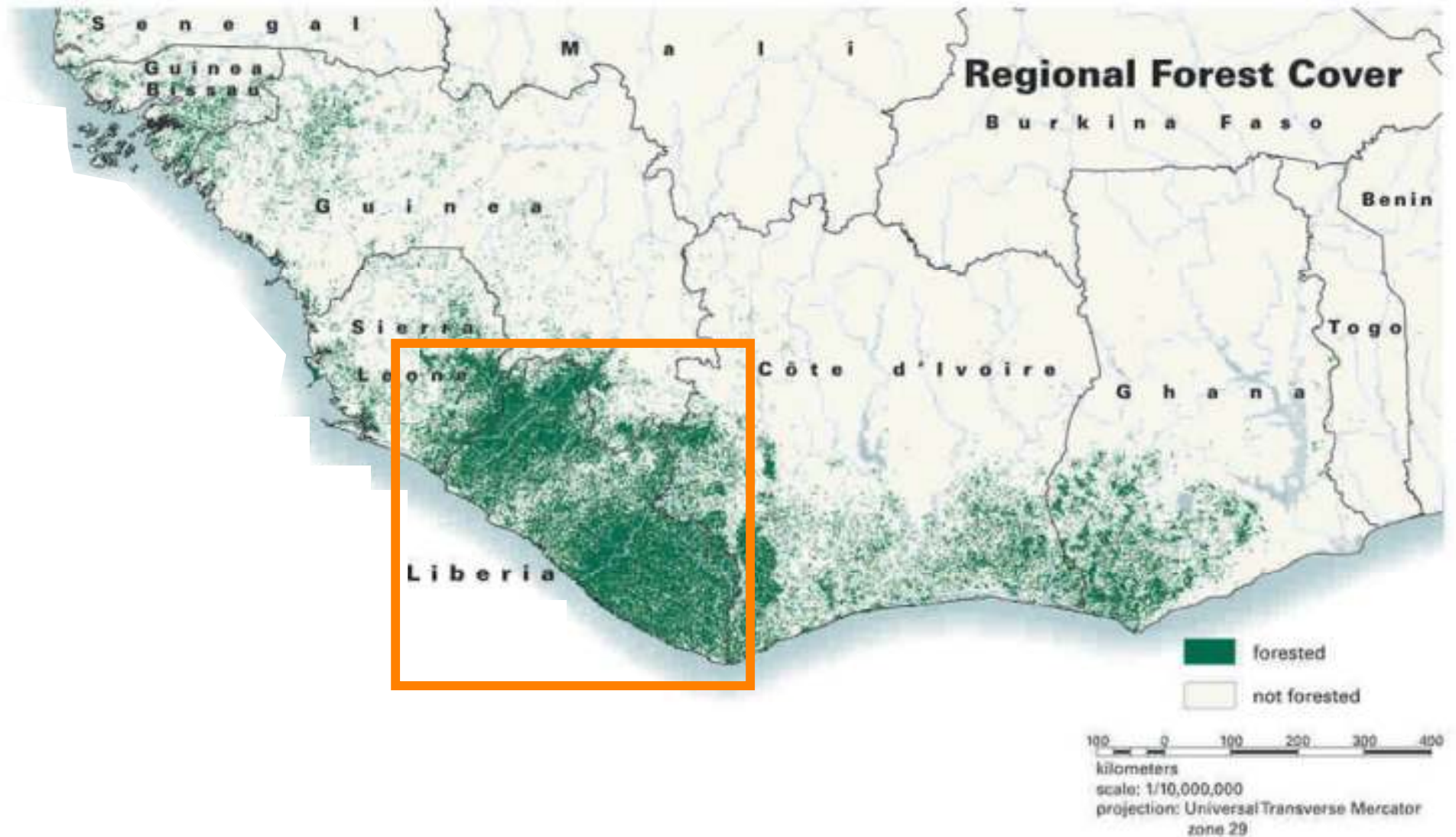
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Introduction

- Liberia is situated in West Africa; a tropical rainforest belt stretching from the Republic of Cameroon to the Republic of Guinea called the Upper Guinea Forest Region. The total land area of Liberia is 9.59 million hectares, with forest covering about 4.39 million hectares equivalent to 45% of the land area.
- The population of Liberia is 3.4 million. English is the official language spoken in Liberia. Besides English, there are 16 other languages that are spoken in Liberia.
- Historically, commercial forestry in Liberia started as far back as the 50s to meet the wood needs of major industries for the construction of factories and residential camps.
- To manage the forest sector of Liberia, the Bureau of Forestry was created in February 1953 through a legislative Act for Conservation of the Forest. In 1976, the Forestry Development Authority (FDA) was created by a Special Act. The Special Act repealed the 1953 Act, thereby granting the FDA the power to Issue, Amend and Rescind forestry and wildlife regulations.

Liberia forest outline





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- ❑ The Special Act defined three (3) main objectives of the sector.
 - ❑ Establishing a permanent forest estate made up of national forests and national parks;
 - ❑ Optimizing the contribution of forestry to the national economic; and
 - ❑ Increasing public involvement in forest conservation and management through the creation of communal forest and agro-forestry .

Bad Forest Governance (1976-2003)

- Amidst these three (3) major objectives to bring about sustainable forest management in the sector, the granting of concessions in Liberia was marred by corruption;
- There were bad environment practices and unwholesome human rights principles, only intended to protect class interests. Moreover, because of political interest and the civil conflict that lasted for 14 years(1990-2004), companies defaulted on payment of taxes to the tune of more than 64 million US\$ dollars.



Reform of the Sector (2006-present)

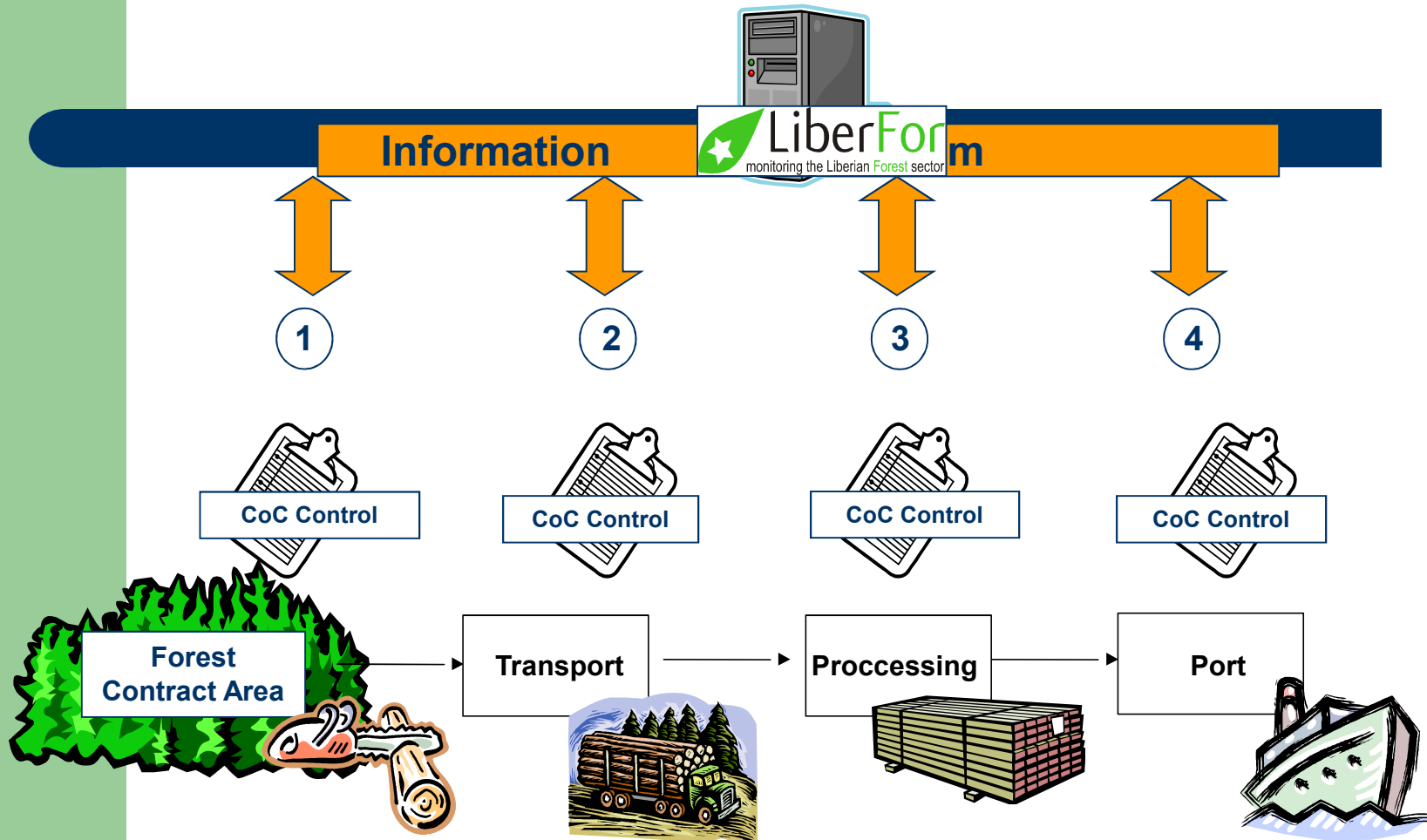
- In 2003 the UN unanimously imposed sanction on Liberia's timber export. Liberia immediately instituted sweeping reforms of the sector.
- The current Government consolidated these reforms by adopting a new national forest policy called "**The New National Forest Reformed Law of 2006**".
- These reform efforts eventually led to the lifting of UN sanction in 2006 and created an enabling condition for FDA to improve the forest sector.

Development of the Tracking system

In an effort to improve the forest sector, an independent international organization called SGS (Society for Governance and Surveillance/LiberFor) signed a 5- year contract with the Liberian Government to **Develop, Manage and Monitor** the timber **Chain of Custody System** in order to satisfy international compliance to good forest governance.

- Under the 5 year contractual agreements, SGS is responsible to train Liberian technicians who will manage the monitoring system when the 5 years agreement expires.
- In Liberia, especially the forest sector, the tracking of timber is referred to as the Chain of Custody System (CoCS). The CoCS was established to serve as a control mechanism for forest sector management.
- The CoCS identifies the origin of the timber and its destination/ end-use.

Generic Chain Of Custody System



How Can the Origin of Timber Be Identified

To identify the origin of timber, two major interlinked activities are carried out. They are: the Annual Coupe system and the Back-to Stump Flow-chain.

1. The Annual Coupe System

- A. Blocking System
- B. Standing Tree Enumeration

2. Back –to Stump Flow Chain

- A. felled/harvested tree
- B. Tally Book
 - i. Tree Data Form
 - ii. Round log Data Form
- c. Waybills

What is the Annual coupe?

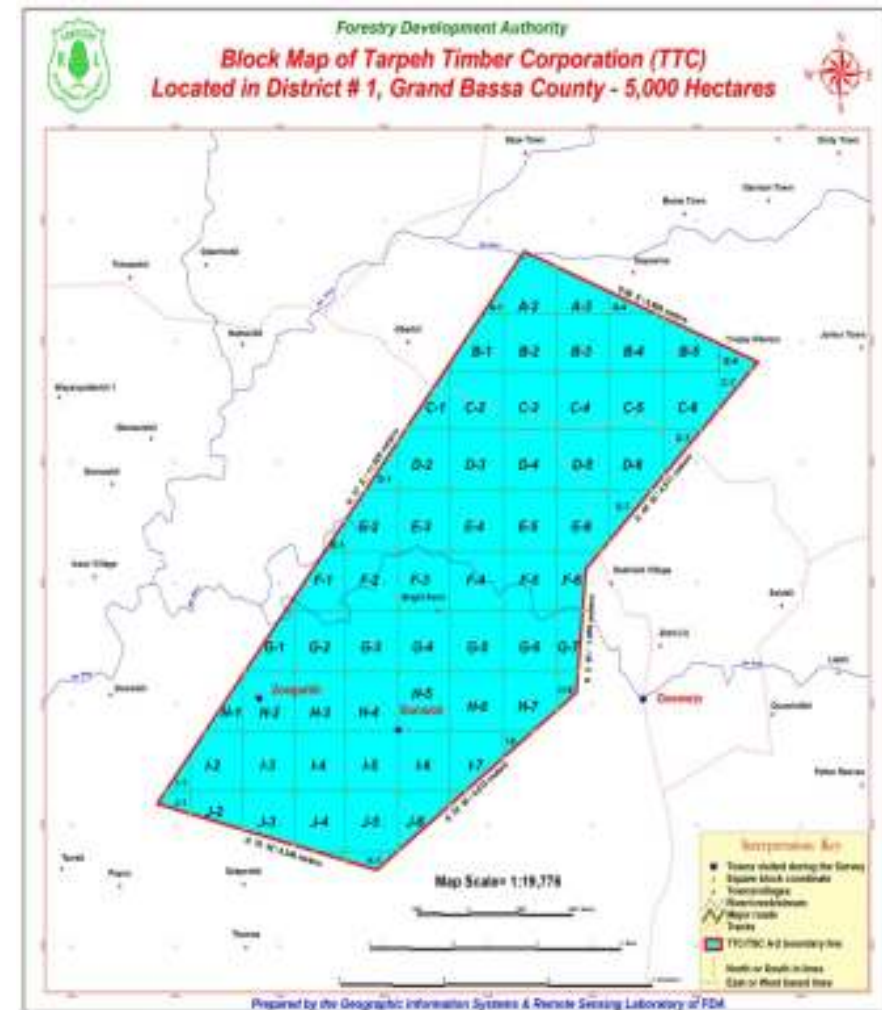
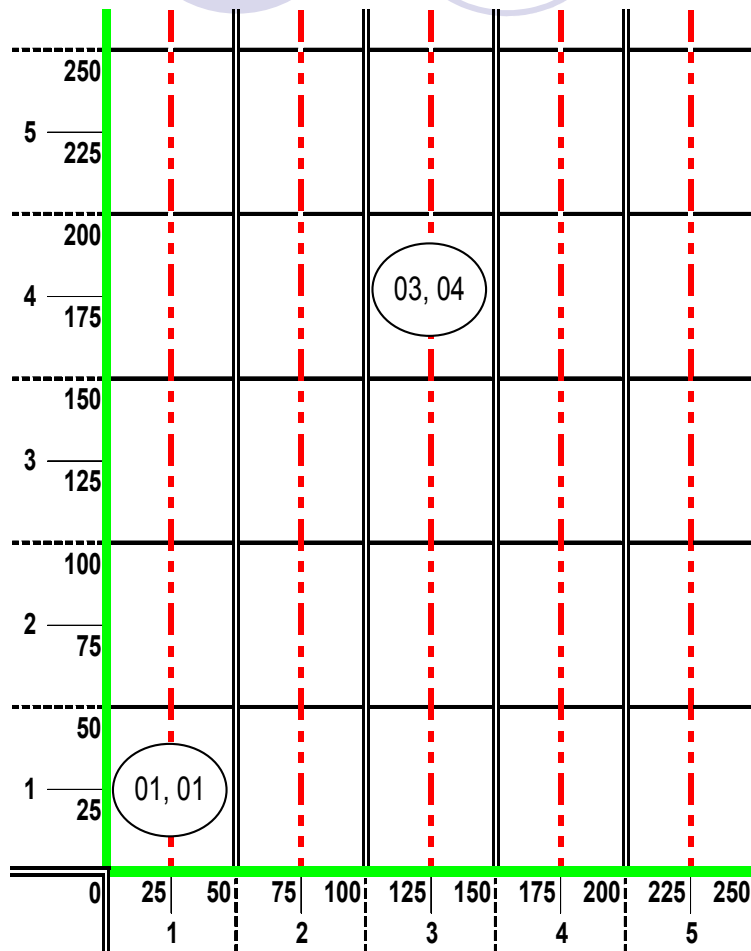
- An Annual Coupe is defined as a given forest area of variable sizes, on which harvesting takes place annually.

The Annual Coupe System

■ BLOCK SYSTEM

- A block is equal to 100 hectares or 1000 meters by 1000 meters or 1km by 1km
 - A given forest is cut into a specified number of blocks.
 - Each block is demarcated (1000meter by 1000meter) and cut into 20 perpendicular lines
 - Each lines has 20 cells (50 meters by 50 meters)
 - Each block has 400 cells.
-
- The number of blocks to be cut depends on the forest land area allotted to a company. Only 4% of the forest land area is harvested annually by a company. The 4% is used in a Forest Management Contract (FMC). An FMC forest area ranges from 50,000hec up to 400,000hec.
 - Eg. Euro Logging has a forest area of 253,670 hec.
 - 253,670hec. (FMC- Area F)
 - $253,670\text{hec}/100\text{hec.} = 2536.7 \text{ blocks} \times 4\% = 101.47$
 - Note**: 25 years felling cycle * 101.47 blocks = 2536.7

Pictorial: Block



- Note**: The CoCS is an approach to sustainable forest management

ENUMERATION of STANDING TREES

- In the Annual Coupe System, standing trees are enumerated in the entire 400 cells of a block. Each tree with a diameter of 45 cm and above is enumerated and tagged.
- Each tag has a barcode, eg. 468ER2KT/43JR
- Pictorial: Standing Tree



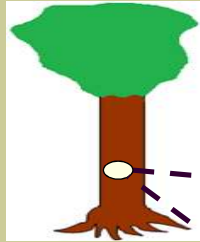
Back-to-Stump Flow Chain

- ❑ This is a direct interlocking link between the harvested timber and the stump.
- ❑ When round logs and sawn timber reach their destination(s), their origin can easily be traceable. Physical documentation(s) can also help the tracing process; E.g. (Tally Books and Waybills).

Stump of a Tree

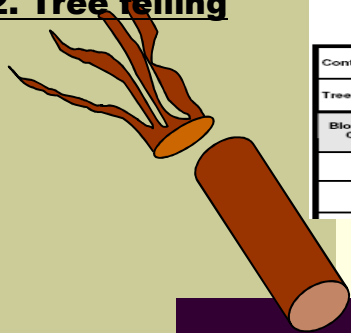
- When a tree is harvested, the stump of the tree is tagged/bar-coded. This method also tracks the origin of the logs.
- Pictorial: Stump

1. Inventory



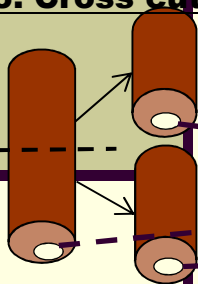
Field Stock Survey Form									
Contract Area name		BLOCK #		LINE #		Company name			
Date Surveyed:				Enumerator					
Tree ID Number	Cell Reference		Species Code	Diameter (dbh) cm	Height (m)	Crop Trees		Tree in road alignment	Remarks/ FDA reason for rejection
	Survey Line Number	Cell ID Number				Proposed	FDA approved		
Barcode 1									

2. Tree felling



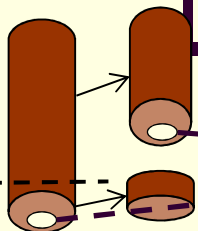
LiberFor TREE DATA FORM									
Contract Holder Name				Contract area				Block map #	
Tree Felling Supervisor				Signature				Date	
Block Map Cell #	Standing Tree #	Species code	Full Length Log Tag #	Diameter (underbark in cm)				Length (m) to the nearest 0.1 m	Stump Tag #
				D1	D2	D3	D4		
	Barcode 1		Barcode 2						Barcode 3

3. Cross cutting



LiberFor LOG DATA FORM									
Contract Holder Name				Contract Area		Date			
Log Yard Supervisor				Signature					
Full Length Log Tag #	Species code	Cross Cut Log Tag #	Diameter (underbark in cm)				Length (m) to the nearest 0.1 m	Volume Declared (m³)	
			D1	D2	D3	D4			
Barcode 2		Barcode 5							
		Barcode 4							

4. Dressing or additional cross cutting



LiberFor LOG DATA FORM									
Contract Holder Name				Contract Area		Date			
Log Yard Supervisor				Signature					
Full Length Log Tag #	Species code	Cross Cut Log Tag #	Diameter (underbark in cm)				Length (m) to the nearest 0.1 m	Volume Declared (m³)	
			D1	D2	D3	D4			
Barcode 4		Barcode 6							

FELLED TREES

- When trees are harvested/ felled, new sets of tags are introduced to qualify the timber (round log) for transport to its destination or end- use.

■ Pictorial: FELLED TREES



TALLY BOOKS

- When trees are felled, they are assessed and recorded in tally books (Tree Data Forms and Round Logs Data Forms) issue by FDA and SGS (Society for Governance and Surveillance).
- Assessment of felled trees is done at landing sites in the forest by FDA and company representatives.

WAYBILLS



Before timber is hauled to destination / end-use location, waybills are issued by FDA Representatives indicating the followings

a. Round Logs

Name of company

Company's tin

Location of origin

Location of destination

Date leaving origin

Intended arriving date at destination

Driver's signature

Loading supervisor's signature

FDA representative's signature

Truck license #

b. Sawn Timber

Same as above

c. **Pictorial: WABILL**

The image shows a 'LiberFor' Waybill form, titled 'WAYBILL - LUMBER AND WOOD PRODUCTS'. It includes a barcode and a table for tracking logs. The table has columns for 'LOG #', 'SPECIES', 'DIA', 'LEN', 'VOL', 'WT', 'VAL', 'CMT', and 'DATE'. The form is filled out with handwritten information in blue ink. At the bottom, there are signature lines for 'Driver', 'Loading Supervisor', and 'FDA Representative', along with a 'Truck License #' field. The LiberFor logo and 'SGS' logo are visible at the bottom of the form.

SGS, FDA and VPA Roles in the Tracking System

- SGS monitors the COCS
- SGS sets the basis for cutting of block by using electronic devises (GPS, PDA, etc.) to establish geographic coordinates and way- points, indicating the exact location of blocks and standing trees.
- SGS and FDA take inventory of the blocks when they are cut by the company
- FDA approves the blocks and issue an annual harvesting certificate.
- FDA re-issues certificate at the beginning of the new logging season when new blocks are approved
- FDA revokes harvesting certificate if harvesting is done in un-approved blocks
- FDA confiscates timber felled in un- approved block and re-enters the timber into the CoCS to establish its origin.



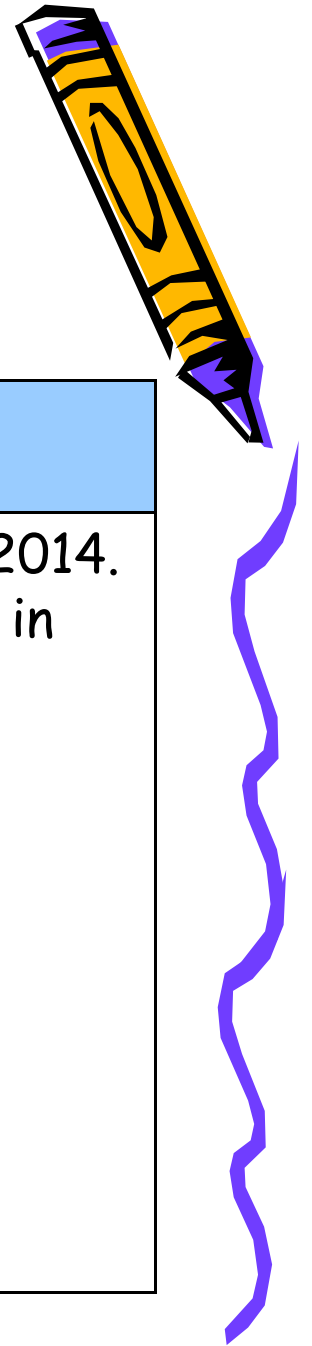
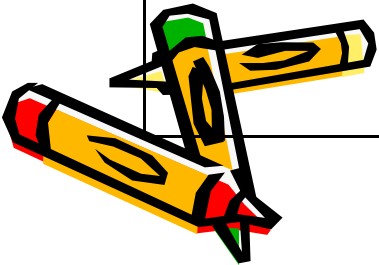
The VPA (Voluntary Partnership Agreement)

- ❑ The VPA is a European Union approach to certificate or license timber that is harvested under legal statute.
- ❑ The VPA was signed by the Liberian Government and the EU on July 27, 2011.
- ❑ The VPA is expected to be ratified in the EU and Liberia this year, 2012.
- ❑ Under the Legality Assurance System (LAS), the followings are adhered to:
 1. Social Agreements between affected communities and logging companies are signed;
 2. Benefits sharing schemes must be adhered to;
 3. Environmental and business plans must be carried out;
 4. The Community Forestry Development Committee (CFDC) in each affected community must be formed to represent the interest of the affected community; etc.

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- ☐ The VPA will issue the first timber license in Liberia in 2014.
- ☐ The VPA arrangement brings creditability to the sector in terms of:

1. Good Governance;
2. Timber products become marketable in European markets;
3. Value added; etc



An aerial photograph of a vast, dense tropical rainforest. The canopy is a mosaic of various shades of green, with some taller trees visible as light-colored specks. Overlaid on the center of the image is the word "Thanks" in large, bold, 3D block letters. The letters have a gradient from orange to yellow and cast a soft shadow on the forest below.

Thanks