SUMMARY REPORT OF PLANNING AND MANAGEMENT
RSPO NEW PLANTING PROCEDURES

GOLDEN VEROLEUM (LIBERIA) INC. (GVL)

NEW PLANTING BLOCK 46,900 hectares
Kpanyan, Dugbe River and Jaede Statutory Districts,
Sinoe County, Southeastern Liberia.

PREPARED FOR:
GOLDEN VEROLEUM(LIBERIA) INC.
17TH. STREET & CHEESEMAN AVENUE
Monrovia, Liberia

"Turning Africa Green"

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1. EXECUTIVE SUMMARY

This planning and management report is an essential tool in guiding mitigation plans for the effective management and monitoring of the different negative and positive environmental conditions addressed in this report. The report also seeks to address management and monitoring of the High Conservation Values (HCVs) identified and responsible persons accountable for their management.

Golden Veroleum Liberia (GVL) is an investment of the Verdant Fund LP. Golden Agri-Resources Limited (GAR) is the principal investor in the Verdant Fund LP. GAR is, by hectare, the second largest oil palm cultivator in the world and listed on the Singapore Stock Exchange. The company is duly organized under the laws of the Republic of Liberia with head offices located in Sinkor 17 Street, Cheeseman Avenue, Monrovia, Liberia. Following assessment of the Liberian business climate and interest in investing in Liberia, GVL entered into a 65 years concession agreement (option of renewal by the company) with the Government of Liberia for the leasing and conversion of 220,000 ha of land in Sinoe, Grand Kru, Rivercess, River Gee and Maryland counties. The TKN AOI was selected based on its location, vegetation cover, invitation by local communities to grant land for the company's operation and soil suitability. Satellite imagery, fly overs and field surveys were used to get a clear understanding of the vegetation cover and avoid all densely forested areas, primary forests and area considered to possess High Carbon Stock (HCS).

GVL is an RSPO member; its membership status approved on August 29, 2011 with the assigned membership number of 1-0102-11-000-00. To comply with RSPO requirements, all members must comply with RSPO's New Planting Procedure (NPP), which includes an independent HCV assessment. HCV assessments and associated NPP reports for GVL have already been produced and approved by RSPO for 12,000 ha in Butaw District, 8,000 ha in Kpayan District and 15,482 ha in Tarjuowon District (Sinoe County); and 28,000 ha in Trenbo and Wedabo Districts (Grand Kru County). In February 2014, GVL commissioned Green Consultancy and Daemeter Consulting to jointly conduct an HCV assessment of the 46,900 ha TKN Area of Interest (AOI). The assessment took place from February – July 2014.

Prior to NPP submission, ESIA reports covering 33,000 ha of land area in Sinoe and 97,000 ha of land areas in Grand Kru were conducted by Green Consulting and approved and certificated by the Environmental Protection Agency of Liberia (the Liberian Agency responsible for Environmental Clarence and Compliance). A portion of these approved ESIA areas overlapped with the TKN AOI, yet more than 28,000 ha was outside of the approved 97,000 ha and required a subsequent ESIA. This was also conducted in March 2014 by Green Consultancy Inc. and approved in May 2014 by the Environmental Protection Agency. The previously approved 17,417 ha and recently approved 29,483 make up the 46,900 ha AOI of land area in which the HCV assessment was done. The ESIA assessment covered geology, topography, hydrology, soil condition, air quality, land use and socio-economic condition of the area, as well as likely

impacts resulting from oil palm operations. The study also detailed methods to mitigate negative impacts of oil palm development.

For the HCV study, the draft National Interpretation HCV Toolkit for Liberia (2013), the global Proforest HCV Toolkit (2013) and he HCV RN Common Guidance (2013) were used to guide HCV identification and management and monitoring recommendations. However, the draft Liberian HCV Toolkit was the primary toolkit used. The HCV assessment deemed the following HCVs as **PRESENT**:

HCV 1.1: Protected Areas

HCV 1.2: Concentrations of rare, threatened or endangered species

HCV 1.3: Concentrations of endemic species

HCV 2.0: Landscape Level Ecosystems and Mosaics

HCV 3: Ecosystems and habitats

HCV 4.1 Area critical to water catchments

HCV 4.2 Area of critical erosion control

HCV 5: Area fundamental to meeting the basic needs of local communities.

HCV 6: Areas critical to cultural identity (values)

And the following HCVs as **UNLIKELY PRESENT**:

HCV 1.4: Critical temporal concentrations of species

HCV 4.3: Areas Critical for Fire Prevention

The AOI is located in the districts of Kpanyan, Dugbe River and Jaede Statutory Districts, Sinoe County in Southeastern Liberia. In order to easily identify the areas, the company refers to the area as TKN Project. The TKN AOI is situated between latitude 5°12'N and 4°54' N and longitudes 9°3' W and 8°33' W. The area covered a mixture of different vegetation types including degraded land, agriculture land mixed with patches of young bushes and secondary forest, open dense forest area, closed dense forest, mangroves vegetation, old and new towns and villages among others. Most of the land area, however of the AOI lies in places where agriculture activities (shifting cultivation) is massively taking place or have taken place years ago. These areas are dominated by old farmlands, young bushes, regenerating forest area as a result of years of shifting cultivation, patches of forested vegetation with young trees due to extraction of timber for logging activities and swamps. In more general terms, the TKN AOI is mostly flat though with some undulating hills. Approaching most streams, the area is slightly steep and around wetlands and mangroves parts of the area appear sandy.

2. REFERENCE DOCUMENTS

ESIA/SEIA and HCV Assessment Reports

This report is based on information from the ESIA (SEIA) reports (74,000 ha & 29,483 ha) and HCV assessment report (46,900 ha) on the same area. Data collected for the ESIAs were also used, where applicable, for the HCV assessment, but separate data was also collected.

List of Legal documents and regulatory permits related to the areas assessed as described in table below:

Table 1: List of Legal Documents and Regulatory Permits

List of Legal Documents	Issuing Institution	Date And Code Number
Government of Liberia and Golden Veroleum (Liberia) Inc. Ratified Concession Agreement	Republic of Liberia by Authority Ministry of Foreign Affairs Monrovia, Liberia	Approved September 1, 2010 and published and printed September 2, 2010
Business Registration Certificate	Ministry of Commerce and Industry	October 13, 2012/2013
Tax Identification Number	Ministry of Commerce and Industry	TIN – 426669005 (Oct 15, 2010)
TKN ESIA Permit (29,483 ha) (this area covers only the new area proposed for new planting which has not been permitted by the EPA	Environmental Protection Agency of Liberia (EPAL)	(Certificate # pending EPA permit). Permit application being processed, with all steps completed. Development will not start until permit is obtained.
Import permit for plants or other goods governed by the Phytosanitary Regulation	Ministry of Agriculture (MOA)	NOES/RL/22/2011 March 23, 2011
Phyto-certificate	Ministere De L'Agriculture De L'Elevage Et De La Peche Benin	000774 12/04/2011
Land Use Certificate	Minister of Agriculture, Minister of Lands, Mines & Energy, Minister of Justice, Judge of the Monthly And Probate Court Grand Kru County	1-2012 p 120-126
Other key national documents were also considered, including, but not limited, to the following:		
An Act Creating the Environment Protection Agency of the Republic of Liberia	Senate and House of Representative of the Republic of Liberia and published by authority Ministry of Foreign Affairs	November 26, 2002

The National Environmental Policy of Liberia	Senate and House of Representative of the Republic of Liberia and published by authority Ministry of Foreign Affairs	November 26, 2002
An Act Adopting the Environment Protection and Management Law of the Republic of Liberia	Senate and House of Representative of the Republic of Liberia and published by authority Ministry of Foreign Affairs	November 26, 2002
The New Forestry Reform Law	Senate and House of Representative of the Republic of Liberia	2006
An Act for the Conservation of the Forests of the Republic of Liberia	Senate and House of Representative of the Republic of Liberia	1953
Act Supplemental to "An Act for the Conservation of the Forest of the Republic of Liberia"	Senate and House of Representative of the Republic of Liberia	1957
An Act for The Establishment of A Protected Forest Areas Network and Amending Chapter 1 and 9 of The New National Forestry Law, Part II Title 23 of the Liberian Code Of Law Revise	Senate and House of Representative of the Republic of Liberia	2003
Draft Wildlife and Protected Area Management Law	Forestry Development Authority	2009
Draft Land Right Policy	Approved by the Land Commission	2013

Location Map

Figure 1: Location of Proposed New Planting – TKN Project in Liberia

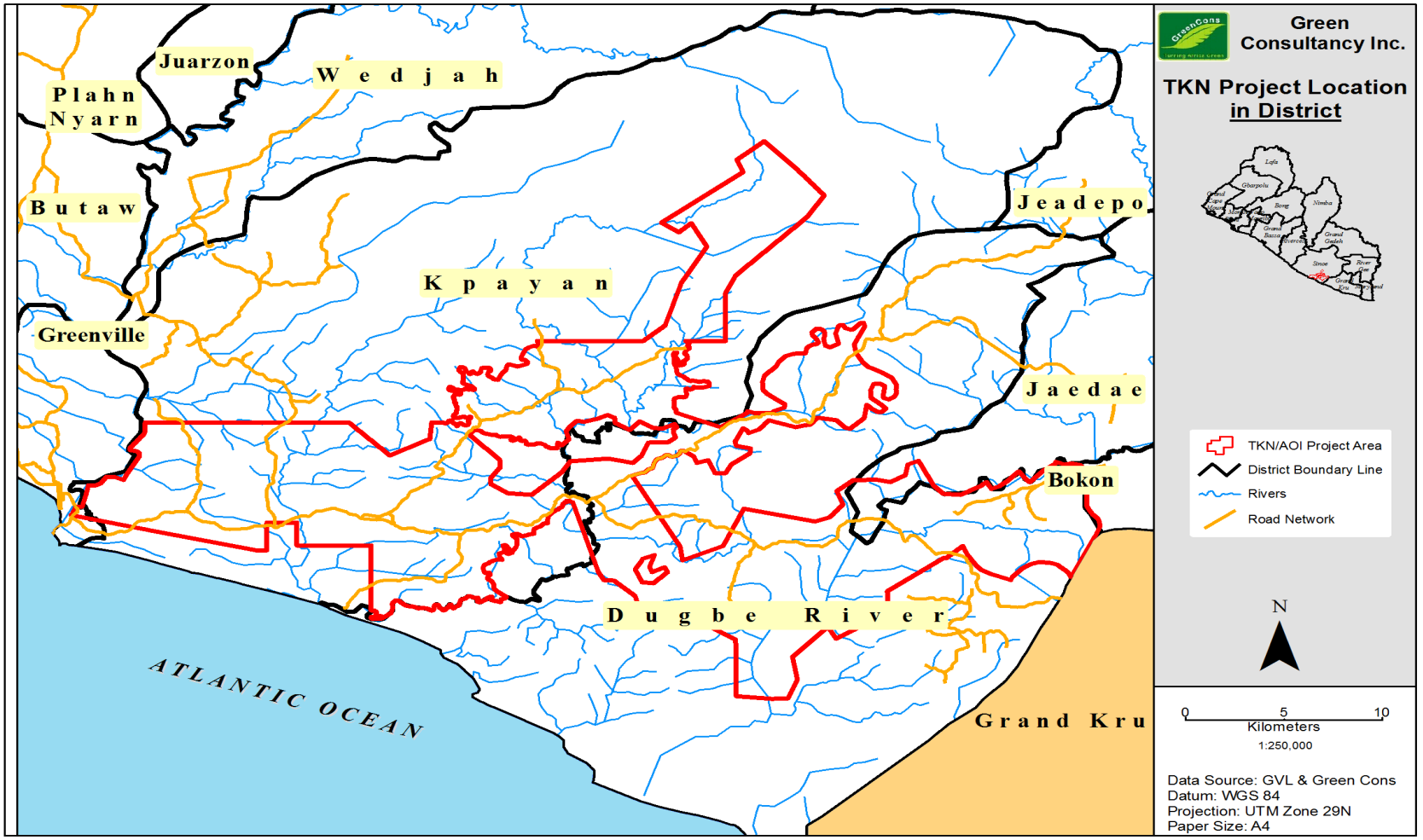


Figure 2: Location of Proposed New Planting – TKN Project in Sinoe County

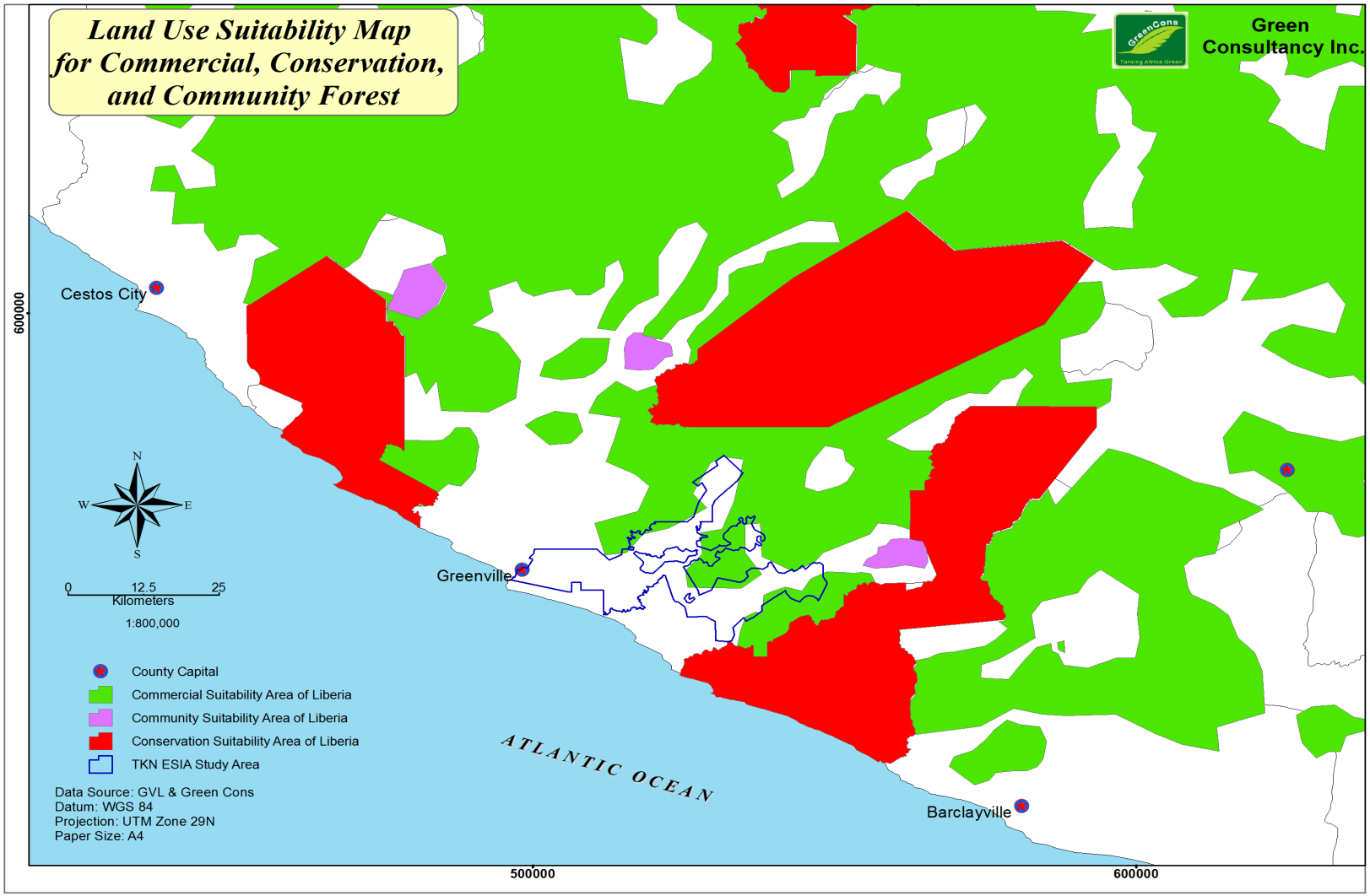


Figure 3: AOI in Relation to FDA Land Use Suitability Categories

Area of New Plantings and Time-plan for New Plantings

GVL aims to commence planting in 2014, and carry out planting over a three year period. Planting will be carried out with targets of 7,000 ha land preparation and 7,000 ha of planting each year (see table below), subject to adjustment based on community MOUs and final planning. Palm seedlings for the planting sites are already being cultivated on previous nursery site in Kpanyan district. The entire area where the nursery site is located has since been permitted by the EPA and covered under New Planting Procedures which included HCV assessment for 8,000 ha in Kpanyan District.

Table 2: Time Plan for New Planting

GVL Block Area (Ha)	Left out of Planting (Ha)		Net area of cultivation of palm oil (forecast)	Activity (ha)	2014	2015	2016	Future	Total
Gross Area: 46,900 hectares*)	HCV/riparian zone/old town	8,960	Concession area	Land Preparation	7,000	7,000	7,000	9,340	30,340
	Road & other infrastructure	1,200		Planting	7,000	7,000	7,000	9,340	30,340
	Nursery	200	Out-Growers Area	Land Preparation	0	1,400	1,400	3,400	6,200
				Planting	0	1,400	1,400	3,400	6,200
			Total	Land Preparation	7,000	8,400	8,400	11,000	36,540
	Total	10,360		Planting	7,000	8,400	8,400	11,000	36,540

**) Note: This total area includes 29,483 ha under a new EPA permit area and areas within an existing + 74000 ha area already permitted by the EPA)*

At present no clearing to facilitate planting has commenced. In line with the RSPO guidelines and procedures, clearing is expected to commence upon certification and approval of NPP related reports and completion of FPIC processes. Within three years, approximately 20% (approximately 5,800 Ha) of the planned planting area will be developed for communities as part of an out grower program, as per the Concession Agreement. The exact areas will be decided upon further consultations and agreement with the respective communities.

Communities in the AOI have been actively engaged and consulted regarding GVL's development plans. The entire development

processes, including the RSPO process flow chart and extent of local community involvement required for the management of HCVs within the project area has been communicate with local communities in the proposed development areas. To date, every community and town has enthusiastically consented to use of their customary land by the company for oil palm cultivation and have all willingly agreed to work in cordial harmony with the company. To solidify this understanding, GVL and communities have been revising drafts of MOUs between GVL and communities detailing the overall agreement to allow oil palm development and associated obligations of each party.

3. ESIA (SEIA) AND HCV MANAGEMENT & PLANNING PERSONNEL

Organizational Information and Contact Persons

Company Name	**Golden Veroleum (Liberia) Inc.**				
Address:	17th Street, Villa Samantha (Beach Side), Sinkor				
City:	Monrovia	Post Code:	NA	Country:	Liberia
Phone:	N/A		Fax:	NA	
Contact:	David Rothschild, Director		Email:	david.rothschild@veroleum.com	
Alt Contact:	Matt Karinen, Director		Email:	matt.karinen@veroleum.com	
Alt Contact:	Vigy Ponnudurai, Sr VP Operations		Email:	vigy.ponnudurai@veroleum.com	
Web site:	www.veroleum.com		Business:	Palm Oil	
RSPO Membership № : Ordinary member Approved 29/08/2011, 1-0102-11-000-00					

Personnel Involved In Planning and Implementation

A serious commitment to planning and implementation on the recommendations of the ESIA and HCV reports is essential to successful management of the important environmental and social values identified. Two key positions area highlighted here, and a flow chart of company positions provided in Chart 1 below. In demonstrating its unwavering support to this area, GVL has a Senior Vice President of Operations overseeing this commitment. The duties of the Senior Vice President of Operations are as follows:

- Enlisting the involvement of other senior executives of the company to ensure that the HCVs identified within the project are managed and monitored according to recommendations in the HCV report
- Training personnel in the area of community engagement and HCV management prior to the commencement of field operations
- Ensuring that HCV management is an integral part of the operating organization, and a way of operating, rather than an outside function (e.g., integrating elements of HCV management and monitoring into the company's standard operating procedures)
- Overseeing the Environmental Manager and Community Affairs Manager to ensure that proper preliminary surveys of HCV sites is executed (e.g., complete participatory mapping and rapid biodiversity assessments still needed, as identified in the HCV assessment), the adaptive management process is used to guide HCV management and monitoring, and the appropriate signage and delimiters to demarcate conservation areas is undertaken prior to land clearing.

Apart from this senior position, GVL management has committed itself to ensuring that all procedures, guidelines and strategies are in place especially as it relate to proper land clearing activities in order to avoid disturbance to riparian and conservation reserves. Contractors are made to adhere strictly to all environmental laws governing the company, especially as it relate

to the management plan within the ESIA. In addition, their actions are monitored on a daily basis. To ensure that the above is achieved, the management of GVL has enlisted the below personnel in the planning, implementation, management and monitoring of the environment within the project area.

The planning, implementation, management and monitoring of the environment within the project area including the following:

NAME	Position
Manohyaran Pillai	Regional Controller
Flomo Molubah	Sr Manager-Environmental Sustainability
Susanne Mulbah	Sr Manager Social Sustainability
Niruvarasu Santharasilan	Sr Manager-FPIC documentation
Bimo Argo	GIS Manager
	Environmental and safety officers
	Community affairs officers

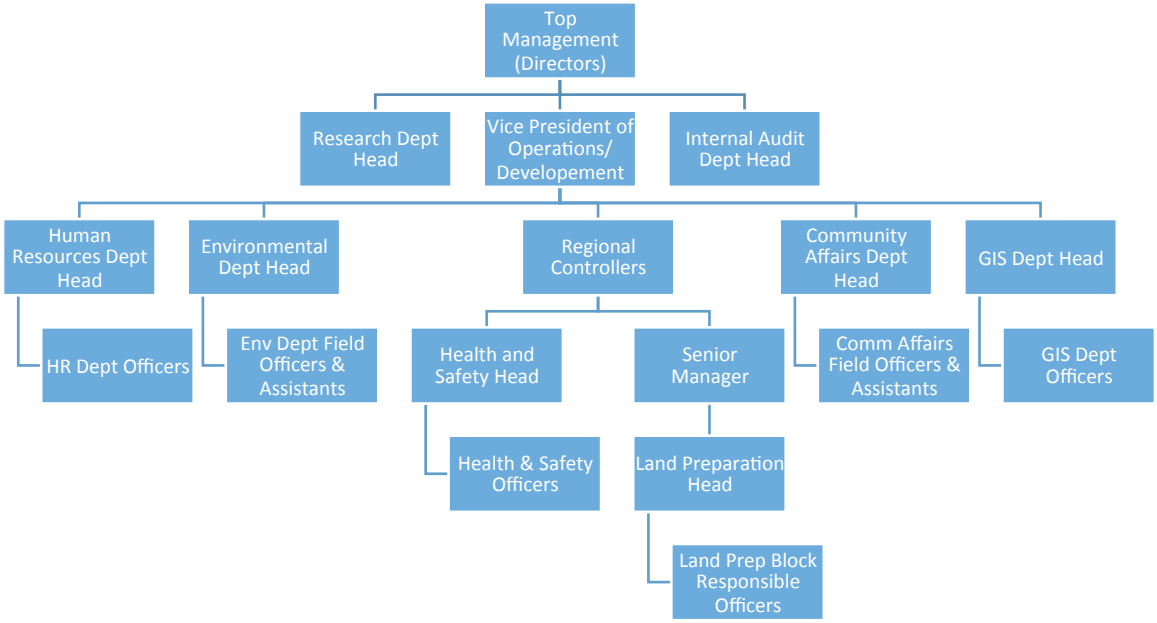


Figure 4: Personnel and Department Role in Planning and Management

Stakeholders Involvement

Government agencies and ministries have statutory responsibility to inform the people of Liberia on the state of affairs in their area of work. When regulatory permits are issued by the government, companies are obliged to allow inspection of their facilities by government agencies. The inspection is meant to ensure that the company is in compliance with all regulatory guidelines of the Laws of Liberia. Regulatory agencies and ministries with a monitoring role in relation to oil palm and GVL permits include those listed in Table 4.

Non-government organizations (NGOs) and groups also play an important role in company

operations, from direct involvement in land acquisition, MOUs, community development and employment to monitoring implementation of project operations and adherence to environmental and social policies and agreements (Table 4). Local communities will play a much stronger role in the former, with national and international NGOs focusing on the latter. Social and environmental NGOs can also serve as good partners and/or provide guidance on important issues – as has already been the case with GVL in Sinoe County where the company has engaged the Wild Chimpanzee Foundation to assist in management and monitoring recommendations for an area where chimpanzees were identified in a GVL AOI neighboring the TKN AOI.

Stakeholder	Role
Government	
The Environmental Protection Agency of Liberia (EPAL)	Compliance reporting; Permit inspections; Joint research and enhancement projects
Lands, Mines and Energy Ministry (LME)	Mapping (as required)
The Liberia Water and Sewer Corporation (LWSC)	Water management on habitation and operations (as required)
Forestry Development Authority (FDA)	Management of forested areas
Ministry of Agriculture (MOA)	Compliance reporting; Inspections; Food security improvement; Training programming; Joint research and enhancement projects
Land Commission	As required in case of land issue
Local authorities of the County (County Superintendent, Paramount, clan and town chiefs)	Information on all company activities affecting county and communities; local regulatory matters; Social contracts matters; Receipt and addressing any concerns or grievances; Monthly meetings
Non-government	
Village and towns representatives	Project host communities- Information on all company matters affecting communities or taking place nearby; Employment and training matters; School and Health Care matters; Social contract matters; Receipt and addressing any concerns or grievances; Monthly meetings.
Community Relations Committee representing the District	Owing to the huge differences that exist amongst the nearby districts, three district level committees are to be set up with representation as follows: • GVL Kpanyan Community Relations Committee Typically Semi-Monthly routine meetings but can be called up for any issue Objective/Function • To represent the voices and convey the issues and concerns of each village and village/town chief in the project area; • To provide a platform that will enhance a smooth and harmonious working relationship between GVL and

Stakeholder	Role
	the project host communities; • To provide a platform for the villages to engage with GVL regularly, through their representatives; with regards to future economic displacement matters and issues relevant to the project; • To formalize a system for submitting grievances to GVL, as well as for resolution of such grievances; • To support initiatives in the identification of employment and business opportunities; • To act as a body which can take discussions further with GVL regarding the company's proposed out grower/smallholder scheme; and • To regularly provide feedback and information to the affected communities on the project
Local and locally present international NGOs	Including NGOs that may establish activities in the areas, SCNL, EPA, CI, MOH, WCF and FFI. Monitoring environmental and social performance of GVL; Periodic consultations and a source of social and environmental data and strategies; Receipt and addressing any concerns or grievances.
Local advocacy groupings	Periodic consultations and information; Receipt and addressing any concerns or grievances.

4.a Summary of ESIA Management and Mitigation Plan

The summary tables below (Tables 3 and 4) outline environmental and social conditions that will potentially arise as a result of GVL oil palm operations and related mitigation measures proposed in the ESIA. The phase of operation and associated regulations area also provided. The goal of these mitigation measures are to maintain or improve environmental quality of the landscape and improve the quality of life of local residents; ensuring livelihoods and cultural heritage are maintained or enhanced.

Table 3: Potential Environmental Impacts Identified and Proposed Mitigation Measures as Defined in the ESIA/SEIA

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
1	Water quality deterioration and change in local hydrology	Aquatic flora and fauna and human population reliant on natural water sources	**Buffer Zone** Ensure appropriate buffers are set aside along rivers and streams to ensure its integrity and other aquatic life forms. The buffer reserves will serve as natural filters for surface runoff from the plantation areas. The reserves will also play a major role in protecting the banks of the waterways from channel erosion. In addition the reserves will create aesthetic scenes along the watercourse. **Fertilizer Application at the Plantation** Judicious use of both organic and inorganic fertilizers will be ensured as much as possible. The fertilizers will be applied around each oil palm tree in shallow rings. This is to ensure that the fertilizer is available to the young transplanted oil palm trees. No broadcasting of fertilizers will be undertaken The use of herbicides will not be encouraged on the plantation. Control of weeds will be done manually. Labor-intensive approach using simple farm tools like hoes and cutlasses will be employed. Organic farming practices will help eliminate the use of inorganic fertilizers and herbicides that are major contributors to surface water quality deterioration. The use of pesticides on the plantation will be minimized. The main control methods for pests and diseases will involve the use of

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			resistant hybrids, trapping/scaring of animals, protecting young plants with collar wire and destroying nestling/breeding areas of pests. A constant phyto-sanitary observation will be maintained to help prevent the outbreak and spread of any potential disease/pest into the whole plantation.
2	Air quality deterioration	Workers/ Local communities	Burning of biomass will not be allowed. Most biomass generated will be made available to the local people as fire wood. Remaining trees and cleared under brushes will be chipped and formed into windrows. Windrowing will involve arranging the vegetative wastes in rows following the dominant local wind direction, to facilitate natural decomposition of stacked wastes.
3	Noise nuisance	Workers/ Local communities	Earthworks and other construction activities will be phased out or controlled to reduce noise generation during construction. • All construction and earthworks will be done during daytime to avoid disturbing the serene nights of the local communities. • Ear muffs will be provided for workers where necessary
4	Solid waste management issues	Workers	• The proposal to phase the development will generate biomass which could be manageable at a given time. • Salvaging of useable biomass can significantly reduce the volumes of waste that has to be disposed of. • Felled trees and cleared under- brushes will be chipped and formed into windrows and allowed to decompose. • Other solid waste like food wrappers, containers and food waste to be disposed of at the District Assembly's designated dump site.
5	Loss of biodiversity	Terrestrial flora and fauna	**Phasing of Oil Palm Development** Clearance of vegetation will be phased to reduce the impacts of vegetation removal on terrestrial flora and fauna. <u>Directional clearing</u> Directional clearing or felling of trees towards the riparian forested areas along the to allow mobile fauna to seek refuge and migrate to densely forested areas

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			<u>Biodiversity Plots</u> Biodiversity plots will be established within the oil palm plantation. Biodiversity plots will also be provided along the waterways and streams within the concession. <u>Alternative Fauna Habitats</u> The Biodiversity plots will serve as alternative habitats for fauna in the TKN AOI. According to Payne (1997), biological control of rats may be achieved by leaving about 5% of plantation land under forest in the form of riparian and hill/steep land reserves.
6	Soil stability and erosion	Soil/ water courses	Sensitive sites with high erosion risk will be identified. Such areas shall not be cultivated and will include hill-tops and very steep slopes having gradient of 25% or more. Vegetation of such areas shall be maintained to help control erosion as well as ensuring soil stability.
7	Impact on soil fertility and acidification	Soil/water courses	Judicious use of especially inorganic fertilizer will be ensured throughout the life of the project to help conserve the environment. Application will be carried out in August and October of the transplanting year. The fertilizers will be applied around each oil palm tree in shallow rings. This is to ensure that the fertilizer is available to the young transplanted oil palm trees. No broadcasting of fertilizers will be undertaken.
8	Biomass generation and CO2 balance	Air	The phasing of the project will reduce the impact to the barest minimum.
9	Pest Infestation	Terrestrial flora	The main control methods for pests and diseases will involve the use of resistant hybrids, trapping/scaring of animals, protecting young plants with collar wire and destroying nestling/breeding areas of pests. A constant phyto-sanitary observation will be maintained to help prevent the outbreak and spread of any potential disease/pest into the entire plantation
10	Solid waste management	Workers/	**Domestic/Office Waste**

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
	issues	Local communities	Adequate litter bins will be placed at vantage-points to minimize littering of the site by workers. The contents of these bins would be emptied at an appropriate central point and sent to a designated waste dump site. Biomass: Salvaging of useable biomass can significantly reduce the volumes of waste that has to be disposed of.
11	Food security	Local communities	The local people living on the concession will not be resettled. They will be allowed to farm on their own plots of land within the acquired concession. GVL will engage with communities to provide support for improved farming methods and practices including lowland farming and other forms of sedentary farming practices that maximizes land use.

Table 4: Potential Environmental Impacts Identified and Proposed Mitigation Measures as Defined in the ESIA/SEIA

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
1	Land acquisition and compensation issues	Land owners/ farmers	Ensure that appropriate documents are in place with record of community consent (FPIC) to offer land. Participatory map prepared for project land offered by community Appropriate compensation procedures will be followed to ensure that payments made to Project-Affected-Persons (PAPs) are within legal requirements. This is in line with the Ministry of Agriculture price listing for compensation of crop. Monetary compensations will be paid to people whose farms or crops will be destroyed due to the development. GVL will assess the farms and crops to be affected and evaluate these properties accordingly with the assistance and guidance of local MOA assigned personnel. Appropriate budgetary allocations have been considered to take care of this issue.

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			Compensation payment will be made directly to affected farmers and individuals to avoid future problems from other people purporting to be family members. To facilitate this therefore, a committees have been formed to ensure that fair compensation are paid to the right individuals. The committee comprises farmers and representatives selected from each town. **Community Sensitization Program** The Company has established a community affairs department to engage with community people on various projects related activities and undertake community sensitization programs which are ongoing. Working groups have also been established comprising of community selected representatives who will liaise with the company on an ongoing basis for peaceful coexistence, community relations for project implementation, resolution of grievances and dissemination of project information
2	Employment issues	Local communities	Members of the communities to be given priority for employment by GVL as much as possible GVL to consider the hiring of women in its operation Adequate medical and insurance coverage to be made available to all employees GVL to work with local education authorities to identify persons who can be sponsored by the Company to pursue further training in the field of Agriculture.
3	Cultural sites	Local communities	The sacred sites including graves and cemeteries on the concession will, with the agreement of the community be well demarcated and the area not cleared for development.
4	Influx resulting to inappropriate interaction with communities, crime, use of alcohol and disagreeable behavior	Local communities	• GVL will respect the legal, social and ecological integrity of communities lands • The communities would be kept abreast of the development plans of the project • GVL to ensure that personnel are properly informed on the correct protocol for interaction with the local communities

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			• GVL to ensure workers interference with the communities is minimal • Drugs and alcohol use by workers within the Concession during work hours would be prohibited
5	Occupational health and safety issues	Workers	**Provision of Personal Protective Equipment (PPE)** Personal protective equipment/apparels such as Wellington boots/safety boots, respirators/nose masks, gloves, overalls and raincoats will be supplied to field workers in suitable and adequate proportions. Supervisors will be charged to enforce the use of these gears. Personnel in charge of pesticide application will wear all the PPE specified on the product labeling for "pesticide applicators and other handlers." All PPE will be inspected each day of use for leaks, holes, tears, or worn places. Damaged PPE will either be repaired or discarded. **Use of Experienced Personnel in handling Machinery** Only experienced personnel will be engaged to operate any machine or equipment. The project will ensure that drivers and earth-moving equipment handlers possess certificate 'A' driving license and license weight requirement of at least 160kg respectively. Initial training in machinery handling and safe working procedures will be given to all new drivers, operators and other field workers to help minimize the occurrence of accidents on site. Safety Training for Agro-chemical Handling The Company will conduct safety training for pesticide handlers and all agricultural workers. The training program will include handling of agro-chemicals, use of PPE and what to do in the case of pesticide exposure.
6	Sanitation problems	Workers	A place of convenience will be provided at the site to discourage free-range defecation. In addition, field workers will be

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			encouraged to use places of convenience available at nearby communities. Waste bins will be provided at appropriate and convenient places to minimize littering of the site. Wash rooms and changing rooms will also be provided for workers
7	Aesthetics and visual intrusion	Workers/ Local communities	Phasing of the clearing of the site will help reduce this impact
8	Presence of workforce- Loss of wildlife from hunting and conflicts with human	Terrestrial flora and fauna/worker	• Employee education and notification will be implemented to reduce vehicle-wildlife collisions and conflicts • Workers of GVL would be prohibited from hunting, trapping, killing, harming or capturing of any wildlife • Employee education and notification to be implemented to ensure workers are aware of the need to preserve wildlife and to reduce wildlife/roadway conflicts • Warning signs indicating hunting/capturing of wildlife is prohibited would be placed at strategic HCV areas Any occurrences of wildlife trapping and trading observed will be reported to the EPA and FDA
9	Biodiversity management	Terrestrial flora and fauna/Workers	Management of riparian zones and other HCVs, wildlife conservation awareness for employees and surrounding communities, enforcement of no hunting policy for employees
10	Occupational health and safety	Workers	**Adoption of Health and Safety Policies** GVL will educate workers on its health and safety policy. The adoption of a health and safety policy at site will serve as a precautionary measure to prevent/minimize the possibility of accidents and reduce health risks. Ensure workers are properly oriented to the safety and health rules Well-equipped first aid kits would be provided at all work sites • Employ a medical personnel to be stationed at the Base Camp and workers trained in first aid should be present at all campsites • Adequate signage should be erected, especially in hazardous areas • Machines are to be operated by competent, licensed and authorized personnel only and in a manner that does not

No	Potential Impact	Receptor(s)	Proposed Mitigation Measures
			endanger other employees or the Company's property • The Emergency Response Plan would be made aware to all relevant personnel and the necessary training and resources required should be provided; • Protective gears and clothes must be provided to employees and should be worn at all times during operation. • Provide potable water for employees • Conduct periodic fogging to prevent mosquito breeding

Specific ESIA Plans and Regulations

Table 5: Specific ESIA Plans and Regulations

<table>
<tr><th>Impacts</th><th colspan="2">Mitigation Measures</th><th>Monitoring and Follow-up Program</th></tr>
<tr><td rowspan="3">Soil Erosion
Leading to:
Soil damage & nutrient loss
Soil instability
Deterioration of water quality
Disturbance to aquatic life
Increase in sediment loads</td><td colspan="2">Riparian
Preservation of riparian reserve for planting</td><td rowspan="2">Exclusion to be mapped on a (1:200,000km) map scale. Marking on the ground or on the tree at 1.5-m height on the demarcation of riparian reserves. Photo (with date), GPS locations and map to be included in the Compliance Monitoring Report. Monitoring of water quality upstream and downstream of the Project site. The parameters include TSS, turbidity, oil and grease. Other information such as GPS location, stream width, surrounding land use must be provided too.</td></tr>
<tr><td>Stream Width
<40m
20m – 40m
10m-20m
5m-10m
< 5m
> 3m</td><td>Min. Width
50m
40m
20m
10m
5m
-</td></tr>
<tr><td colspan="2">Erosion channels
Dominant drainage paths on cleared areas shall be rehabilitated for areas no longer used with fast growing creeper plants to prevent formation of soil erosion channels.</td><td>Photo (with date) and GPS location of the drainage system.</td></tr>
<tr><td></td><td colspan="2">Equipment
Equipment must be of reasonable size and can be equipped with blade as is standard practice in the industry globally. Equipment will be used and</td><td>Equipment plan and budget
Photo (with date) of machinery used for land clearing and preparation.</td></tr>
</table>

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	operated to minimize soil disturbance and compaction. The blade should be mostly moved above the ground surface without touching the ground to prevent soil disturbance and forming of rill erosion.	
	Erosion control structures Table drains, culverts and other drainage structures to channel run-off water to road-side filter strips or silt pits prior to entry into streams should be installed concurrently with road construction.	Marking of proposed roads on the map and ground checking for the width of roads, drainage system and gradient. Photo (with date) and GPS location of the filter strips especially in the high-risk area.
	Cover crops for table drains Table drains should be seeded with grass to prevent erosion of drainage banks and to prevent formation of erosion channels.	Site inspection – during rehabilitation works. Any failures should be noted.
	A6 Road grade Road grade should not exceed 15% (8degrees).	Photo (with date), GPS location and mark on map for such structures.
	River crossings Roads should not cross main streams unless appropriate crossing structures (e.g. culverts or bridges) are built.	Map showing the road with approximate area for each of them and photo (with date) for structures built across the river.
	Road soil management Avoid pushing excess spoil into gullies and the edges of road embankments during road maintenance. Spoil should be compacted 'in-situ', or transported to disposal sites away from the road, thus minimizing erosion of roads and sedimentation of waterways.	Site inspection – during rehabilitation works. Any failures should be noted.
	Filter strips Provide filter strips or silt pits (traps) along the roadsides to help to reduce siltation of river systems and to prevent an increase in the intensity and	Photo (with date) and GPS location of the filter strips and silt traps, especially in the high-risk area.

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	frequency of peak flows into the river system downstream of the land clearing activities. Where filter strip is not possible, silt trap is encouraged at all drainage outlets, prior to discharge into streams to reduce suspended sediment loading. Silt traps should be maintained regularly. Disposal from silt trap should not be done adjacent to rivers, streams, creeks or any drainage.	
	Culverts All culverts should have cut-off wall to prevent erosion under the pipe. The head and outlet walls of culverts should be stabilized with log or stone pitched walls. Culvert gradients should ideally be 1-3%. Contractors should ensure that proper drainage is installed in order to reduce soil erosion and runoff.	Photo with date and GPS locations of all drainage system including any failures.
	Biomass removal Removal of biomass should be carried out during suitable time period, proper methods and procedures and selection of machineries to reduce unnecessary surface erosion.	Photo (with date) and GPS location of the stacking of biomass and the location of burning at the field.
	Slopes Terracing Slope between 12o and 20o should be terraced for better result in the field, improved access and water retention.	Marking of slope between 12º and 20º on the map and in the field. Photo (with date) of terracing in the field.
	Steep Areas Set Aside The steep areas should be conserved for flora conservation and ecological protection.	Development Plan in 1:33, 0000 scale maps. Photo with date and GPS locations showing the marking or painting on the trees.
Soil Contamination from hydrocarbons	**Spills prevention** Transport hydrocarbons by means of secured truck. Store fuel products on impervious surface. Ensure	Photo (with date) and GPS locations showing that oil storage area is properly bounded and sited on stable ground. The storage facilities should be at

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	that all fuel and waste oil storage containers have secondary containment. Develop spill contingency plan to respond to large oil spills	least 50 m from the nearest waterways. Annual review of spills contingency plan.
Hydrological Impact	**Water Management** Extensive land clearing should preferably be carried out during the suitable weather. Commence planting cover crops soon (e.g. 1 month) after site clearing. Refrain from clearing of areas where slopes are more than 25^{o} and soils are shallow. Limitation of heavy machines during land clearing and preparation should ensure. Limiting tractor traffic during wet periods to avoid excessive compaction. Establish long-term rainfall and flow gauging stations to monitor the impact on the river base flow.	Marking on map the boundary of each Project phases. GPS location and photo (with date) showing the land clearing activities carried out in phases. Records of rainfall
	Flooding prevention Exercise proper management practices; develop Project area in phases, encouraging natural ground cover immediately after clearing and maintaining adequate streamside buffer strips.	Map showing details of phased development. Photo (with date) showing natural ground cover establishment and maintenance of riparian reserves and buffer belts.
	Sediment management Develop plantation in phases and ideally scheduled over drier period or months. Lay roads carefully, preferably following the contour and must be far enough from stream. Clearing should be done parallel to contour lines, starting from high to low ground. Install cross drains for minimizing overland flow. Timing of road construction or road upgrading to	Photo (with date) of measures taken to protect water quality from sediment yield. Provide map and GPS coordinates to show

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	conform to periods of less rainfall and allowing sufficient time for earthworks to stabilize. Using the appropriate machineries in the land clearing to minimize disturbance to the soil. All clearing, grading and stabilization operations would be done before starting the next phase. Where possible, the stages of development should be from the high to low grounds, so as to take advantage of the present vegetation to act as silt and runoff barriers. Reduce the duration (max. 3 months) of land exposure to natural elements. No person shall carry out any tree felling, building or structures erecting and other works within the riparian area. Conduct water resource assessment with the aim of identifying all water resources in the area of operation and identify sampling locations for monitoring	
Degradation of aquatic life by spills	**Fuel and chemicals storage** Locate all fuel storage areas at least 50m away from surface water.	GPS location, photo (with date) showing fuel storage areas
	Used chemicals containers Properly clean and store used chemical containers for supply to locals or recycling entities for reuse or recycling	Regular check of used chemical containers. Photo with date of used chemical containers cleaning, storing and record of disposals
Human impact on wildlife populations Leading to: Fragmentation of habitat and wildlife ranges	**Preservation zones** Steep slopes more than 25° must be protected Retain patches of primary forests stand found in degraded forests areas, in order to serve as wildlife corridors	GPS location, photo (with date) showing the marking on the trees at 1.5-m height at the base limits and map (1:33,000) showing the surveyed area.

Impacts	Mitigation Measures	Monitoring and Follow-up Program
Loss of biodiversity	Conserve riparian management zones	
	Bush meat hunting Discourage hunting or trapping of wildlife within and surrounding the Project area.	Regular check for any sign of hunting activities at all the base camps.
	Development direction Directional clearing or felling of trees towards forested area.	Development Plan with direction of clearing shown. Regular ground surveillance especially in the planting areas.
Floral ecology	**Sensitive high risk areas** Protection of sensitive/high risks areas including steep slopes, riparian, wetlands etc.	Regular check of riparian, slopes and wetlands with monitoring data on medicinal plants and floral species in these areas
Biomass management	**Vegetative waste** Stacking of vegetative waste along the contour	GPS location and photo (with date) showing the stacking of biomass in the cleared area.
	Alternative biomass methods Apply alternative method of biomass disposal such as in-situ mulching or chipping when suitable.	The Project Proponent to look into these possibilities with consultation with the relevant authority.
Fertilizer Application and Control Chemicals Management Incorrect application of Fertilizers	**Fertilizer application** Avoid application of fertilizers, pesticides and weedicides during the rainy weather and windy conditions. Fertilizers should also be applied in split doses.	Detailed records of application
Judicious use of pesticides	**Chemical application** The frequency, dosage and timing of chemical application should be monitored closely. Practice biological control and other environmental friendly methods to control weeds and mammalian pests whenever possible.	Detailed records of application and environmental team.
Forest Fires	**Fire response team and procedure** Establish an Emergency Response Procedure and an Emergency Response Team	Operational audit
Socio-Economics Concerns on	**FPIC** Rigorous implementation of the Free, Prior,	Survey in detail the towns living side by side with the concession and the adequacy of land allocated

Impacts	Mitigation Measures	Monitoring and Follow-up Program
Displacement of people and communities Loss of land, crops and sacred sites, Food insecurity, loss/contamination of domestic water sources, health problems Change in lifestyle and living conditions	Informed Consent principles and practices Displacement of population Displacement in any form or manner is avoided as company policy. Local people allowed to remain in their communities with required aspects of their surrounding community required for them to maintain or improve their livelihood, including a minimum 250m radius buffer zone surrounding each town, apart from the farmlands. Resettlement can be practiced if actively desired and requested by the community members. **Farming land** Because of the agrarian nature of the communities, land for farming will be allocated in consideration of current and future population growths to enable farmers have land for farming and other livelihood activities. The process of identification and allocation of farming land to be done in concert with the local people. **Farming methods** Because of the historical traditional method of farming practice in the area; farmers to be assisted and capacitated to adapt sedentary farming practices that maximize the use of land other than that any land allocated for farming will not be sustainable over a long time frame. **Livestock development** Encourage livestock raising through education, methods advise, model farm establishment, purchasing locally produced livestock and products, and establishing markets **Community affairs**	for farming and other livelihood activities. Record of all payments made to resettled persons with evidence thereof Records of all meetings, consultations and negotiation regarding resettlement. Monitor frequent meetings between company and community representatives. Structure, membership list and minutes of all meetings between company and community representatives Conditions of towns within the concession in respect of basic social services: education, health, roads, sanitation etc. Record of agriculture training and support to project host communities including number of beneficiaries. Record of local community infrastructure support: number of hand pumps, kilometers of road constructed or rehabilitated, support to health care, education etc. Records of all complaints and actions taken to address them

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	Establish a robust community relations program with a focus on building a vibrant company-community relationship on the basis of trust and mutual benefit. This should include a mechanism for free and continuous flow of information and awareness to the community about past, current and future activities of the project. **Sacred sites** Sacred sites will not be disturbed. In conjunction with community representatives identify, demarcate and mark all sacred sites, cemeteries and cultural sites to be avoided by the project. **Compensation** Identify and enumerate all private assets including tree crops, land and other private assets and pay just compensation based on GOL approved compensation rates following negotiation and acceptance by affected persons. **Farm markets** Encourage local farming initiative by purchasing vegetables and other crops from the farmers at competitive rates so that those who are not employed by the company can be encouraged to continue their farming **J10 Community programs** Support local development through concrete corporate, social responsibility programs in the area of roads, healthcare, education, sanitation and agriculture. Particular emphasis on adult literacy. Open up employee welfare selectively to affected community groups.	
Provision of	**Employment priority**	Keep a record of workers and their particulars.

Impacts	Mitigation Measures	Monitoring and Follow-up Program
Employment Opportunities for locals, upgrading of economy and infrastructure	Work priority should be given to the suitable qualified local villagers.	Record of number of locals benefitting from employment
	Foreigner work permits If non-Liberians were employed, proper procedures must be followed.	HR records.
	Health check Where practical, workers to go through health check within first year of employment and emphasis on communicable or infectious diseases especially Malaria, TB or others every 6 months	Provide the audit team with non-confidential summary of the worker's health records.
	Concession agreement facilities Provision of facilities and utilities in accordance with terms of Concession agreement (potable or clean water, housing and sanitary facilities)	Photo (with date) and GPS location of the camp,
	Cash economy development Support of small landholders to participate in the cash economy	Record of cash and material support including purchases of products from small holders
Risks to human health	**PPE** The uses of personal protective equipment for all personal engage in risk activities, for instance those in mechanical workshop, heavy equipment drivers, chain saw operator, etc. The PPE shall include among other things safety goggles, gloves, safety booths, ear and nose muff,	Ensure all employees in risk activities are entitle to safety wears; keep records of all employees safety wears; ensure that employee are properly equip during work and penalize violators, making sure these records are properly recorded and kept to ensure company commitment to safety issues.
Employee welfare	**Permanent employment** Provision of mainly permanent, not seasonal and not casual employment opportunities **Training and career path** Provision on the job and formal training for skills enhancement and career progression, from local base to top management	Record and detailed statistics of programs of programs insurance program and social services/amenities provided per annum

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	Children Schooling and education Provision of free of charge regulated schooling from crèche until Sr. High school to employee children. **Health care** Provision of free basic and intermediate health care From clinics to regional hospital support **Housing** Provision of insurance schemes, Provision of free, modern built housing suitable for families **Electric power, water and sanitation** Provision of insurance schemes, retirement free electric power, clean water and sanitation facilities **Long term benefits** Provision of insurance schemes, retirement benefits as well as social services and amenities for workers and their beneficiaries **Women's development** Provision of equal opportunities to work, pay, training and advancement to women, and provision of harassment-free workplace **Encouraging employee union** Provision of encouragement for proper union organization and resolution of disputes through workplace negotiation	
Pollution by improper waste disposal in the project area	**Waste** Refuse to be disposed of in pits approx. 30m from waterways and above water table. Cover refuse with soil once a week.	Photo (with date), GPS location of the dumping ground and general layout of the camp, name of contractor and plantation areas.
	Storage tanks Any Storage tanks constructed on stable ground with bundling and at least 50 m away from waterways.	GPS location and photo (with date) showing the location of the storage facilities.

Impacts	Mitigation Measures	Monitoring and Follow-up Program
Water resource degradation and siltation	**Communities water provision** Cooperate with communities and local authorities on solving water supply issue on the directly affected communities.	Photos (with date) to show good practices on ground.
	Water quality monitoring Regular monitoring of water quality.	Compliance report
Dust and noise pollution	**Vehicles** Proper maintenance of vehicles.	Records of maintenance carried out for vehicles
	Vehicles traffic within the Project area Ensure efficiency of engine. Vehicles should be well maintained to reduce exhaust smoke emissions. Gravelling of roads around the plantation office, village and living quarters would reduce the dust problem. Introduce tree-covered buffer zone around plantation village to reduce dust in the dwelling area. **Outside the Project area:** Inform truck drivers to reduce their speed when approaching human settlements to reduce dust generation. Install road sign and establish speed humps near the settlement areas (at the entry points) and impose speed limit of 20km/hr. on plantation roads to reduce churning up of dust.	Photo (with date) and map showing roads, speed humps and tree-covered buffer zone around plantation area, installation of signboards, speed humps
Road Safety	**Road signs** Proper traffic signboard at appropriate spots especially near T-junctions or settlement area.	Photo (with date) and GPS location of the signboard.
	Road damage Damaged section of road should be repaired as quickly as is practical and in accordance with	Photo (with date) and GPS location of any damaged road.

Impacts	Mitigation Measures	Monitoring and Follow-up Program
	company road maintenance procedures.	
Abandoned project areas	**Rehabilitating land** Re-establish all open area with fast growing indigenous species or fruit trees	Photo (with date) and GPS locations showing the reestablishment works on site.
Visual impact on abandoned camps	**Camps if any** Removal of all building structure to discourage any illegal squatter activities, removal of all solid and liquid waste, rehabilitation of all main roads.	Photo (with dates), GPS location of roads and map for the plantations.
	Equipment Remove all machinery and equipment to recover cost.	Area inspection
Security of the Project area and communities	**Security gates** Retain the security gates into the plantation areas and joining communities	Photo (with date) and GPS locations

4.b Summary of HCV Management and Mitigation Plan

The GVL management plan should include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. It is recommended that monitoring at different increments depending on the HCV shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes. Adaptive management will be central to the monitoring and evaluation process.

Management strategies for HCVs vary, from total protection of a species or area, to special strategies undertaken that allow harvesting, road building and silviculture operations but with conditions. These management strategies should be found in the company's Standard Operating Procedures. All applicable management strategies and special considerations should also be relayed to contractors prior to operations and actively monitored during operations.

Monitoring of HCV management strategies can be through a number of processes. Superintendents monitor harvesting operations by daily contact with contractors and by checking their progress through on-line operating maps that are updated daily. They also perform on-site monitoring at least weekly.

In order to determine the effectiveness of the management strategies, in many cases GVL should rely on institutions with which it has "agreements" to the High Conservation Values apart from GVL's internal HCV (environmental) management unit. An advisory committee of NGOs and organizations with experience in conservation agreements with communities has been advised.

An integrated management and monitoring strategy is provided in the final chapter of the HCV Assessment report. The following headings are used, going into detail on each of the topics:

1. Collaboration with Local Communities
2. Socialization and Delineation of HCVs
3. Biodiversity
4. HCV Forests
5. Riparian Forests
6. Wetlands
7. Water Quality
8. Management and Monitoring Plans & SOPs

Individual HCV management and monitoring summary points are provided in Table 6 below.

Table 6: HCV Management and Monitoring Recommendations Summary

HCV	Objective	Management Recommendation	Monitoring Recommendation
1	The objective of HCV 1 management is to maintain concentrations of biodiversity values in the AOI and neighboring landscape. Such values have been identified in remaining forests still in good condition, wetlands, riparian forests, and areas providing connectivity or a buffer to these areas.	• Demarcate boundaries of HCV areas • Maintain and establish riparian buffers • Maintain and buffer wetlands (including mangroves) • Maintain and buffer forests identified as HCV • Do not develop oil palm in areas identified as "No-go Zones" • Reduce hunting pressure • Collaborate with local communities to maintain environmental values • Maintain or improve water quality in all rivers in the area of operations • Establish a biodiversity management and monitoring program with assistance of specialists in this area • Conduct RBAs in areas where chimpanzees have been documented in the AOI and/or reported by community members or workers. These should be undertaken by qualified chimpanzee experts. • Establish a human-wildlife conflict plan focusing on chimpanzees • Ensure land clearing is undertaken such that it flushes wildlife into adjacent forests rather than isolating individuals in small forests or areas that will be cleared	• Ongoing, routine monitoring of riparian buffer condition • Routine water quality surveys in rivers and wetlands • Ongoing monitoring of land cover change in the AOI and surrounding landscape • Ensure the completion of a rapid biodiversity assessment (RBA) by species specialists prior to development of areas • Biodiversity monitoring • Monitor the success of community engagement initiatives to offset environmental impacts (e.g., reduce hunting of HCV species) • Use of adaptive management to evaluate and adjust management and monitoring activities as necessary
2	The objective of HCV 2 management is to protect landscape level ecosystems and mosaics by maintain the integrity of the forests that are part of the HCV 2 landscape adjacent to the AOI and the biodiversity	As per HCV 1	As per HCV 1

	within it. This includes relatively small areas of HK3 and HK2 forest that extend into the AOI and mitigating potential impacts on adjacent forests.		
3	The objective of HCV 3 management is to protect ecosystems and habitats that are naturally rare, have become rare due to historical processes, or threatened by present or future processes. This includes high density forests (HK3) and medium density forests (HK2) when adjacent to high density forests, wetlands that are inundated year round and coastal wetlands (mainly consisting of mangrove forests).	As per HCV 1	As per HCV 1
4.1	The objective of HCV 4.1 management is to protect areas that are are critical for the maintenance of fragile or rare aquatic ecosystems, essential for the regulation of the flow of rivers and streams, preventing severe floods, or maintaining water quality.	• Demarcate boundaries of HCV areas • Maintain and establish riparian buffers • Maintain and buffer wetlands (including mangroves) • Collaborate with local communities to maintain environmental values • Maintain or improve water quality in all rivers in the area of operations	• Ongoing, routine monitoring of riparian buffer condition • Routine water quality surveys in rivers and wetlands • Ongoing monitoring of land cover change in HCV 4.1 areas • Monitor the success of community engagement initiatives to offset environmental impacts (e.g., encroachment into riparian forests) • Use of adaptive management to evaluate and adjust management and monitoring activities as

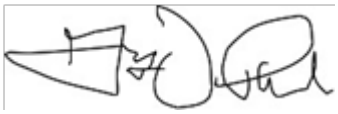
			necessary •
4.2	The objective of HCV 4.1 management is to protect areas that are are critical for the prevention of soil erosion.	• Establish clear SOPs for identifying high erosion risk areas and how to prevent erosion • Demarcate boundaries of HCV areas • Maintain and establish riparian buffers • Collaborate with local communities to maintain environmental values	• Ongoing, routine monitoring of land clearing operations to ensure SOPs are being followed • Ongoing, routine monitoring of riparian buffer condition • Routine water quality surveys in rivers and wetlands • Ongoing monitoring of land cover change in HCV 4.2 areas • Monitor the success of community engagement initiatives to offset environmental impacts (e.g., encroachment into riparian forests) • Use of adaptive management to evaluate and adjust management and monitoring activities as necessary
5	The objective of HCV 5 management is to maintain areas that are fundamental for the basic necessities of local communities.	• Collaborate with local communities to realistically and accurately calculate HCV 5 resource needs and ensure enough area is allocated to meet these needs. • Demarcate boundaries of HCV areas • Participatory mapping of important NTFP collection sites • Maintain and establish riparian buffers • Maintain or improve water quality in all rivers	• Ongoing, routine monitoring of riparian buffer condition • Routine water quality surveys in rivers and wetlands • Ongoing monitoring of land cover change in HCV 4.1 areas

		in the area of operations • Maintain and buffer wetlands (including mangroves)	• Monitor the success of community engagement initiatives to meet HCV 5 needs (e.g., protein needs, farm lands) • Use of adaptive management to evaluate and adjust management and monitoring activities as necessary
6	The objective of HCV 6 management is to maintain areas that have been identified in collaboration with communities as cultural values critical to the traditional cultural identity of local communities.	• Collaborate with local communities to definitively map HCV 6 areas and appropriate buffer zones necessary to protect these sites. During land clearing, clearly demarcate boundaries of HCV 6 areas to prevent unintentional clearing. Recruit appropriate community member(s) to be present onsite during land clearing to ensure no mistakes are made. • Establish an SOP that provides a clear system of communication between communities and GVL and within GVL that insures that any issues involving HCV 6 sites are addressed immediately.	• Onsite monitoring of land clearing activities by communities when operating near HCV 6 sites • Monitor the success of SOPs designed to avoid HCV 6 areas • Monitor community satisfaction with company performance and ability to maintain HCV 6 values amidst oil palm plantation operations • Use of adaptive management to evaluate and adjust management and monitoring activities as necessary

5. INTERNAL RESPONSIBILITY

We hereby sign off on the above Summary Report of Planning and Management. The above may be amended and clarified for improvement during the development of the plantation but it will remain in accordance with RSPO NPP and RSPO Principles and Criteria.

On behalf of the Approved Assessors



Solomon P. Wright

Team Leader: RSPO HCV Approved Assessors

August 2014

Paoli, PhD

Daemeter Consulting

August 2014

Management of Golden Veroleum

Matt Karinen

Director – GVL

ACRONYMS

AOI	Area of Interest
AOD	Area of Development
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
EPA	Environmental Protection Agency
ESIA	Environmental and Social Impact Assessment
FDA	Forest Development Authority
FMU	Forest Management Unit
FSC	Forest Stewardship Council
FFBs	Fresh Fruit Bunches
FFI	Fauna and Flora International
GIS	Geographic Information System
GOL	Government of Liberia
GPS	Global Positioning System
GVL	Golden Veroleum Liberia Inc.
GKRG	Grand Kru-River Gee
GPS	Global Positioning System
HCV	High Conservation Value
HCVF	High Conservation Value Forest
HCS	High Carbon Stock
IUCN	International Union for Conservation of Nature
LISGIS	Liberia Institute for Statistics & Geo-Information Services
LWSC	Liberia Water and Sewer Corporation
MOA	Ministry of Agriculture
MOU	Memorandum of Understanding
NPA	New Planting Area
NPP	New Planting Procedure
PP	Precautionary Principle
PAP	Project-Affected-Persons

RSPO	Roundtable on Sustainable Palm Oil
RBA	Rapid Biodiversity Assessment
SEIA	Social and Environmental Impact Assessment
SCNL	Society for the Conservation of Nature in Liberia
TFT	Tropical Forest Trust
TKN	Tartweh, Kabada, Nyanpoh, Seethun, Nyannue