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**SUMMARY REPORT**  
**HCV ASSESSMENT FOR SIME DARBY PLANTATION (LIBERIA) INC**  
**GOLAKONNEH AND GARWULA DISTRICTS, GRAND CAPE MOUNT COUNTY**  
**(15,000 HA)**



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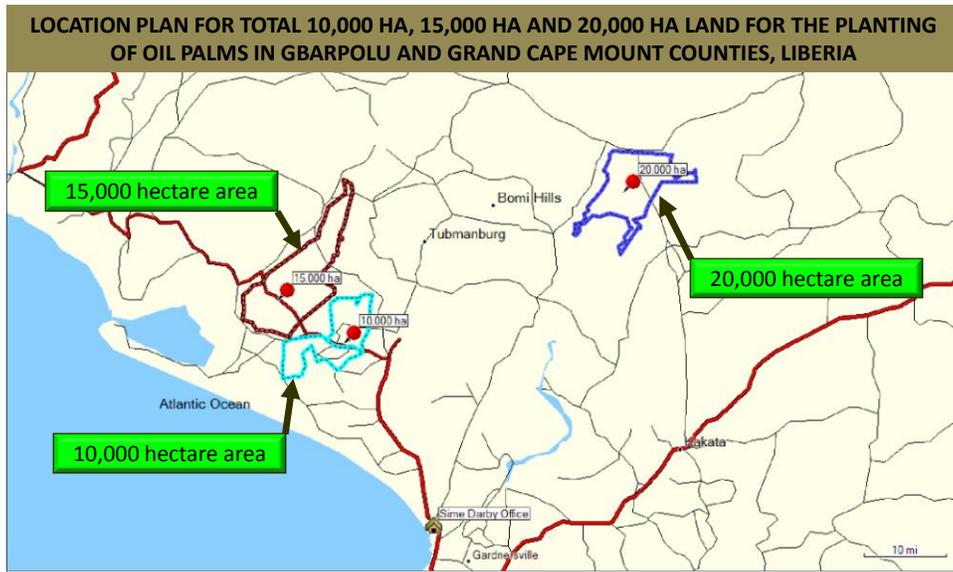
## Executive Summary

This is an assessment of the sites within the Sime Darby Plantations estates in Liberia (Sime Darby Plantations Liberia Inc) to determine the presence of sites with high conservation attributes.

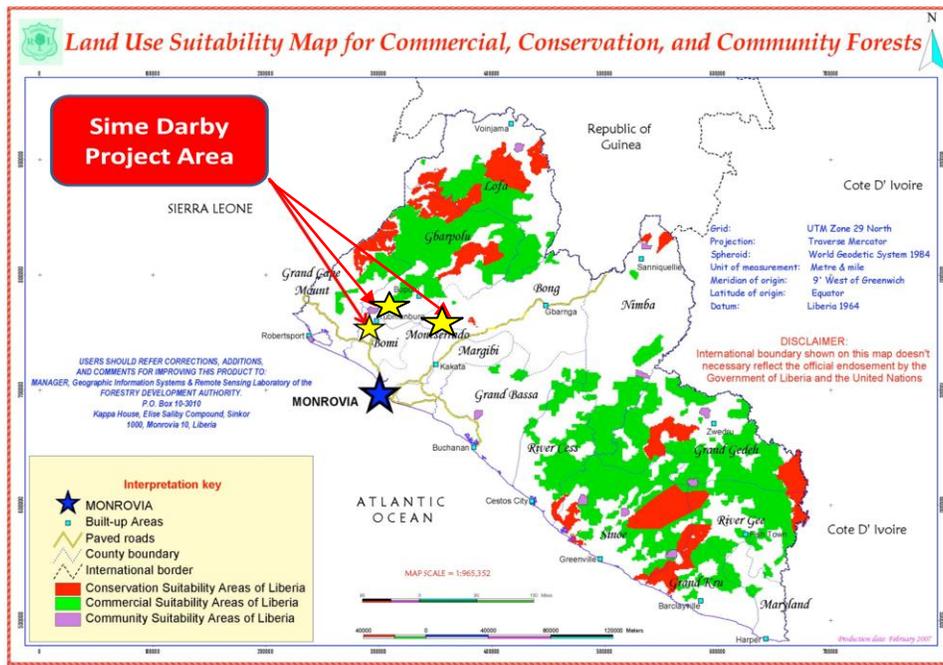
The main objective of this study is to identify these HCV sites in line with the certification requirements of Roundtable Sustainable Palm Oil (RSPO) certification scheme. Having identified these sites a training module will be developed to ensure that the management staff of each estate will be able to guide all the workers in maintaining, monitoring and enhancing their conservation values. The assessment is guided by Proforest *High Conservation Value Forest (HCVF) Toolkit* in the documentation and field surveys conducted in each estate. The initial field work was completed in February 2011 by a team of ecologists and biologists, followed with documentation review. A subsequent field visit was conducted in May 2011.

The location of the proposed project site is shown in the maps below:

**Fig. 1 Location of the project area**



**Fig. 2 Landscape map showing forested areas**





From the assessment it was noted that the proposed site had been cleared of the natural vegetation for the previous rubber planting as well as the many shifting cultivation conducted by the local communities. Secondary vegetation had covered the area owing to the absence of maintenance during the country period of unrest. There were demonstrated efforts to protect of the waterways with well defined riparian buffer belts (HCV 4.2). These waterways were of importance to the local communities as source of water as well as transport system. The many towns within and around the project area had been identified and consultations held with the inhabitants during the assessment. The planted sites around these communities would be excluded from the plantation activities and protected under HCV 5. Sites of religious significance had also been identified and demarcated for protection under HCV6.

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## **Description of Project Area and Location**

The project area consists of 15,000 ha in Garwula and Golakonneh Districts, Grand Cape Mount County. The land area earmarked for the plantation predominantly consists of degraded lowland forests owing to extensive shifting agricultural activities. Patches of primary forests are scattered across the project area, especially along the main river banks and remote areas.

## **Project Ownership**

The project is owned by Sime Darby Plantation (Liberia) Inc, a subsidiary of Sime Darby Plantation, which is a Malaysian owned agro-industrial company with downstream business comprising of 21 entities in 15 countries worldwide ranging from America, Europe, Asia and Africa. Sime Darby Plantation (Liberia) Inc Liberia is a corporation duly organized under the laws of the Republic of Liberia, represented by its duly authorized representative Mr. Boima Sonii the Liaison person for this project.

Sime Darby Plantation (Liberia) Inc current administrative office is located on the Mobil Compound, Virginia, Montserrado County. It is a new company with the potential of developing and establishing the oil palm project the counties described above.

## **Project Historical Aspect**

The project area covers 15, 000 hectares of land located in Golakonneh and Garwula districts, Grand Cape Mount County. The area is straddled by several villages and towns that include Massatine Colony, Gbenii, Mbalikou, Soe, Kornomah, Manivalor, Gargar and, Mecca and Bacca. The Concession covers Kiazolu 1A, Kaid ii A & B, and the Manobalah A Clans in Garwula District and Darblo Clan in Golakonneh District (Fig. 1).

The existing vegetation consists of 3 distinct types. The first is the inland wetlands with patches of swamps. This ecosystem is characterized by streams and creeks with *Abura* spp, *Raphia* palm and bamboos.

The next ecosystem is the degraded agricultural land in ex forested areas. These comprise of abandoned old farm lands and isolated patches of residual forests stands. Evidences of extensive subsistence (slash and burn) agriculture, which supports the primary livelihood for the rural inhabitants of the area, are common. Cash crop production including rubber, coconut and coffee are also notable in the area, though not on a very large scale.

The last is constituted mainly by natural forested areas. These are found as isolated stands of intermediate forest that are mainly located along the banks of Mesila and Lofa rivers.

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## Assessment Findings

### HCV Sites

The project area covers 15,000 hectares of land located in Golakonneh and Garwula districts in Grand Cape Mount County. This County comprises of mainly degraded forest areas, a result of shifting cultivation converting most of the natural forest areas into farmlands. The project area is sited within predominantly secondary forest with less than 20% of intact forests found along hill slopes, river banks and areas remote from communities. With the stopping of farming activities a process of natural succession occurred with pioneer shrubs forming the first vegetation cover. This was followed by the proliferation of larger pioneer grass species, including *Paspalum scrobiculatum* and *Leersia hexandra*. Creeping and scented fern, *Gleichenia polypodioides* and *Mohria caffrorum*, would follow soon after the ground had been substantially covered by pioneering grass types. Trees would begin to colonize the area at this stage. There was however a low degree of biodiversity, mainly dominated by shrubs and grasses. Without disturbances this stage would be followed by more plant growth providing more protection to the soil. Dominant species would include taller grass species such as Cottonwool grass (*Imperata cylindrica*) and more robust fern species including the Ladderbrake (*Pteris vittata*) and Edible bracken (*Lenzites elegans*). Species associated with regeneration following farming like *Alzelia odorata*, *Scleria spp.* and *Alchornea spp.* would be found. Scattered stands of residual trees among the abundant secondary vegetation together with remnant rubber trees were common throughout the area.

The fauna integrity of the area had been seriously degraded largely due to the agricultural practices and poaching. Most of the large mammal species in the area had become scarce. Evidences of hunting activities within the area were observed during the survey. Several traps were also observed in the area mainly around farmlands. Several small mammals were reported with the Greater Cane Rat (*Thryonomys swinderianus*) as most common. Others included African Brush-tailed Porcupine (*Atherurus africanus*), Green Bush Squirrel (*Paraxerus poensis*), Rusty-bellied Brush-furred Rat (*Lophuromys sikapusi*), Guinea Gerbil (*Tatera guinea*), Miller's Striped Mouse (*Hybomys planifron*), Tree Pangolin (*Manis tricuspis*), Ants Bear (*Cynictis penicillata*), Black Dulker (*Cephalophocus niger*), Water Chevrotain (*Hymenoschus aquaticus*) and Red Legged Sun Squirrel. These had not been listed as threatened animals under the IUCN Red List. Species protected under Liberian were Laws Water Chevrotain (*Hyemoschus aquaticus*), and Bush cow or African Buffalo (*Syncerus caffer*) were reported.

A survey of the avifaunal population in the area identified several forest and lowland birds that included Harrier hawk, Yellow-Spotted Barbet, Red eye dove, Senegal Coucal, White-backed night heron, white faced whistling duck, African Fish Eagle, Black sparrow hawk and pigeons. The most common reptile recorded was Black snake, boa constrictor, Lizard (brown/green), black cobra (*Naja melanoleuca*), Cassava snake, rhinoceros viper (*Bitis nasicornis*) and crocodiles.

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The assessment also included documentation of fishes caught by villagers in towns and villages from rivers, streams and creeks. The common methods of fishing were by hook lines, baskets and nets made from piassava and palm tree products.

Scattered villages, towns and a number of hamlets were found within the project area. Many of the settlements located in the interior parts of the project area comprised of houses made with mud and thatch roof with only a few with concrete walls. There were no access roads, health care or sanitation in some areas. The main concentrations of population density were the settlements along the main roads. The primary source of livelihood for the settlements assessed was shifting cultivation for rice and cassava. This would be supplemented by hunting, palm cutting, mining and petty trading.

### **HCV 1 Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values**

#### **HCV 1.1 Protected Areas**

There were no gazette protected areas within the project area. The protected areas documented by the Forestry Development Agency are located outside in the north and west of the site. These are the Kpelle National Forest, South Lorma National Forest and the Gola National Forest. The proposed Lake Piso Multiple Sustainable Use Reserve is located further south west of the project site.

#### **HCV 1.2 Threatened and Endangered Species**

Owing to the extensive shifting cultivation carried out by the local communities in the region most of the vegetation found within the project area was of secondary nature consisting of savanna grasses and scattered sections of young bushes. Apart from the stretches of riparian forest along the Lofa River and its tributaries with scattered patches of original forest (Fig. 8), the other areas for this proposed oil palm establishment had no aspect of this high conservation value. Within the proposed project area there was no sight of any critical endangered species observed during the survey or recorded by hunters interviewed.

#### **HCV 1.3 Endemism**

This HCV attribute was not identified within the project area as no endemic species of flora and fauna were recorded.

#### **HCV 1.4 Critical Temporal Use**

The team concluded after numerous interviews and on site monitoring that the proposed oil palm area did not have habitats that support migratory birds of global significance. The site did not contain special food trees for the rare or endangered animals or suitable breeding grounds except within the residual riparian forest.

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**HCV 2 Forest Area contains or is part of a globally, regionally or nationally significant large landscape-level forests where significant populations of most if not all naturally occurring wildlife species exist in natural patterns of distribution and abundance**

There are three sub-categories assessed to identify the presence of such forest:

- HCV 2.1 The FMU is a large, landscape-level forest of global or regional or national importance
- HCV 2.2 The FMU is an integral part of a large landscape-level forest
- HCV 2.3 The FMU maintains viable populations of most naturally occurring wildlife species existing in natural patterns of distribution and abundance.

None of these characteristics mentioned above were identified within or around the project area during the HCVF assessment.

**HCV 3 Forest area contains or is part of a threatened or endangered ecosystems**

To determine the existence of such ecosystems within the project area, the following official sources were consulted:

- Liberia Biodiversity Strategy Action Plan
- Biodiversity and Protected Areas-Liberia
- United Nations Environment Programme-World Conservation Monitoring Center (UNEP-WCMC).
- World Database on Protected Areas(WDPA)Version 6
- The Ramsar Bureau.2002. List of Wetlands of International Importance
- Conservation International- Liberia
- Conservation and Wildlife Department, Forestry Development Authority
- Agriculture Ministry-Liberia

Data obtained from these sources indicated the absence of threatened or endangered ecosystem.

**HCV 4 Forest areas that provide basic services of nature in critical situations**

**HCV 4.1 Watershed Protection**

The forest along the Lofa River could be considered under this element of controlling stream flow regulation and water quality and unique source of water for daily use. In addition to these, the water is also use for domestic purposes and transportation. These stretches of vegetation would be the only remnants of the original forest vegetation of the area.

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#### HCV4.2 Erosion Control

Forests are critical in erosion control. The forest cover maintains terrain stability, by reducing erosion, landslides which will result in downstream sedimentation. Most of the steep ridges had been degraded by farming activities and had poor regenerative capability which could be prone to erosion. These areas would be excluded in the planting activities to encourage regeneration to form natural wildlife corridors and temporary refuge for animals.

The Mahe and Lofa rivers run for a long distance from the north through the south-western part of the area. There are many tributaries of these rivers e.g. Goimay, Zinny, Bobo and Lebain. The main rivers flowing through the project areas will have to be protected with riparian buffer belts maintaining the intact forest. The width is as specified in the EIA report (Table 1).

**Table 1 Recommended Riparian Reserve for the proposed oil palm plantation**

River Width (m)	River Reserve (both river banks)
>40	50m
20-40	40m
10-20	20m
5-10	10m
<5	5m
>3	-

RSPO-MY National Interpretation Working Group

#### HCV4.3 Forests providing barriers to destructive fire

Owing to the high rainfall in the region the occurrence of fire was deemed to be low.

#### **HCV 5 Forest area is fundamental to meeting basic needs of local communities**

A survey using the Participatory Rural Appraisal (PRA) methodology was conducted in 20 communities within and around the project site. In addition to acquiring useful and relevant information from participants, the methodology allowed for a broader participation by illiterate as well as literate people by using materials all are comfortable with. The methodology can bring out local knowledge, for instance by asking residents to define their own categories for analysis. PRA is generally known to foster confidence and a wish for increased participation among the participants.

The villagers had traditionally utilized the forests surrounding their areas or even those at a distance from their villages. The forest had traditionally provided basic necessity such as food, medicine, meat, firewood and construction material. The survey showed that the primary source of livelihood in the project area was subsistence farming (cassava and rice). The villagers in the Garwula and Golakonneh area were from the Vai, Gola and Mende tribes. Of these people who had responded, 73% reported residing in the area for more than 20 years, with 77% of them being native to the area and almost 90% of them characterizing their homestead as permanent.

More than 84% of the working people within the Project Area were farmers and another 3% dependent on hunting activities. The remaining 13 % were in mining and petty trade. Only 13% of the respondents covered during the survey had ever been employed. The respondents spent more than 74% of their income on food, 6% on household material and clothes with the remaining 20% going towards education. The major impediments noted in the area were lack of markets, fertilizers, equipment, damages to crops by Greater Cane Rat (ground hog). There were poor road networks in the project area making transportation of food crops to the market centers very difficult and expensive. This had resulted in poor agricultural production in the area and largely responsible for the acute level of poverty and under development.

Mining activities were reportedly high in the Geedah area which was part of the project site. The mining was done along the Lofa river. This area attracted youth migration outside of the project area owing to the mining activities.

Health facilities in the area were largely restricted to the district headquarters and few large towns like Sinje and Robertsport. Reliance on traditional medicine was, however, not so common among the people.

The survey was conducted in 20 communities in Garwula and Golakonneh districts, Grand Cape Mount County (Table 2) and the social economic characteristics of these villages are presented.

Table 2: Names of communities Interviewed

Category	Respondents			
	Male	Female	Total	% Total
Manivalor	3	1	4	4.2
Mesila	4	0	4	4.2
Soe	8	3	11	11.5
Banford	6	0	6	6.3
Kornomah	5	0	5	5.2
Mecca	4	2	6	6.3
Bacca	5	0	5	5.2
Massatine	4	3	7	7.3
Gbenii	4	1	5	5.2

Category	Respondents			
	Male	Female	Total	% Total
Didior	3	1	4	4.2
Dangatee	3	1	4	4.2
Burphy	4	2	6	6.3
Sambola	1	0	1	1.0
Geedah	2	2	4	4.2
Mbalikou	4	0	4	4.2
Younger village	3	1	4	4.2
Goodrich	3	3	6	6.3
Bamboo village	1	2	3	3.1
Total	72	24	96	100.0
<b>% to Total</b>	<b>75.0</b>	25.0		

### HCV 6 Forest area is critical to local communities' traditional cultural identity

HCV 6 sites were identified within and surrounding 4 of the 20 communities investigated. These were presented in Table 3.

Table 3: Local communities with sacred sites and their locations

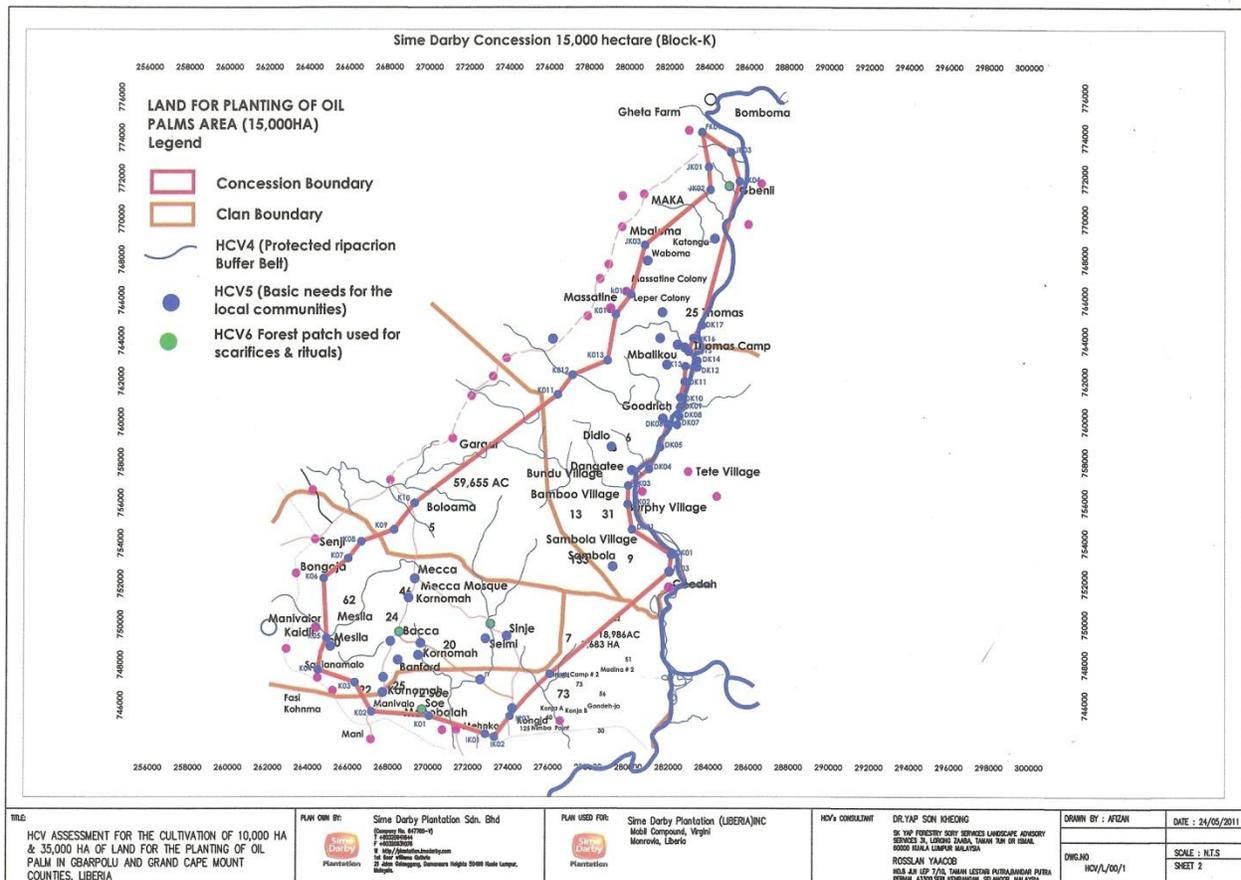
Settlement	Sacred site	GPS Coordinates
Soe	Forest patch used for traditional sacrifices and rituals	269542/745493
Bacca	Forest patch used for traditional sacrifices and rituals	269342/748668
Gbenii	Forest patch used for traditional sacrifices and rituals	285406/772448
Seimi	Forest patch used for traditional sacrifices and rituals	272771/749682

The areas identified are restricted areas in which strangers/non-members are forbidden to enter the sites.

All of the towns have burial sites. Some of these sites are scattered around the town, while others are in designated location within the town. The team realized that these sites may be significant and are found right within the town.

The locations of the HCV sites within the 15,000 ha area is shown in Fig. 3

**Fig. 3 Locations of the HCV sites within the 15,000 ha project area**



A summary of the HCV sites is presented in the following Table.

**Table showing a summary of HCV Sites in the Sime Darby Plantations Liberia**

Project area	HCV 1				HCV 2	HCV3	HCV 4			HCV 5	HCV 6
	1.1	1.2	1.3	1.4			4.1	4.2	4.3		
15,000 ha project site								X		X	X

The management practices for maintaining and enhancing the values of HCV sites were also prescribed for each estate. To ensure that this could be understood by the management and field workers a training module was developed. Monitoring regimes had been proposed to ensure that the HCV values would be maintained. Continuous consultations with stakeholders would be established through liaison committee.