Roundtable on Sustainable Palm Oil

(RSPO)

New Planting Procedure

Summary Report of Assessments

(SEI Assessment, HCV Assessment, Soils and Topography Surveys, LUC Analysis & FPIC Process)

Biase Plantations Limited

(Calaro Extension Estate)

Akamkpa Local Government Area

Cross River State

Nigeria

Table	of	Contents
I GOIC		COnterned

4		
	ACQUISITION OF THE CALARO EXTENSION CONCESSION BY WILMAR	
	SOCIAL AND ENVIRONMENTAL IMPACT ASSESSMENT (SEIA) RESULT	
	LIST OF LEGAL DOCUMENTS, REGULATORY PERMITS AND PROPERTY DEEDS RELATED TO AREAS	
	LEGAL DOCUMENTS	
1.3.5	REGULATORY PERMITS AND PROPERTY DEEDS	. 8
1.4 L	OCATION MAPS – BOTH AT LANDSCAPE LEVEL AND PROPERTY LEVEL	. 9
	LOCATION OF THE PLANTATION (CALARO EXTENSION ESTATE) IN CROSS RIVER STATE, NIGERIA	
1.4.2	Location Map of Nigeria	10
	LANDSCAPE MAP OF THE PROPOSED LAND (CALARO EXTENSION ESTATE)	
1.5 A	REA OF NEW PLANTINGS AND TIME-PLAN FOR NEW PLANTINGS	14
1.6 A	SSESSMENT PROCESS AND PROCEDURES	14
нс	CV and Social Environmental Impact Assessors with their credentials	14
1.7 A	SSESSMENT METHODS USED IN THE HCV AND SOCIAL ENVIRONMENTAL IMPACT ASSESSMENT	15
1.7	7.1 HCV Assessment methods (data sources, data collection, dates, programme, places visited):	15
1.8	8 SOCIO-ECONOMIC SURVEYS:	16
1.9 S	AMPLING PROCEDURE	18
2.	SUMMARY OF FINDINGS	19
2.1 S	OCIAL ENVIRONMENTAL IMPACT ASSESSMENT	19
2.1.1	POTENTIAL POSITIVE IMPACTS	19
2.2	1.1.1 Employment creation	19
2.2	1.1.2 Commercial opportunities for small and medium scale local businesses	19
2.2	1.1.3 Improved income and standards of living	20
2.2	1.1.4 Benefits of introduction of high yielding oil palm varieties	20
2.2	1.1.5 Training and capacity building for employees and smallholders	20
2.2	1.1.6 Tax revenue and economic benefit for the state and national economy	20
2.2	1.1.7 Contribution to reducing the domestic palm oil deficit	20
2.:	1.1.8 Revenue to local communities through royalties	20
2. 2	1.1.9 Contribution to rural development	21

RSPO New Planting Procedure Assessment Report Estate. Biase Plantations Limited – Cross River State

Calaro Extension Estate, Biase Plantations Limited – Cross	River State
2.1.2 POTENTIAL NEGATIVE IMPACTS	21
2.1.2.1 Impacts on food sufficiency	21
2.1.2.2 Influx of plantation workers and impacts on social networks	21
2.1.2.3 Water, Air and noise pollution	21
2.1.2.4 Occupational and public health and safety risks	22
2.1.2.5 Pressure on public infrastructure/amenities	22
2.2 No development option scenario	22
2.2.1 Perceived impacts on traditional environment and conservation areas	23
2.3 HCV ASSESSMENT	24
2.3.1 HCV 1.1 Protected areas	25
2.3.2 HCV 1.2: Concentration of rare, threatened and endangered species	25
2.3.3 HCV 3: Rare, threatened or endangered ecosystem	27
2.3.4 HCV 4.1: Areas critical to water catchment	29
2.3.5 HCV 5: Areas fundamental to meeting basic needs of local communities	29
2.4 LAND USE CHANGE ANALYSIS	33
2.9 SOILS AND TOPOGRAPHIC SURVEY (BY Dr. Param)	35
2.10 FPIC PROCESS	38
2.11 INTERNAL RESPONSIBILITY	38
2.5 APPENDIX 1. SUMMARY OF ISSUES RAISED BY STAKEHOLDER AND ASSESSORS COMMENTS	39
2.6 Appendix 2	41
2.7 APPENDIX 3	44
2.8 APPENDIX 4:	47
2.8.1 LEGAL DOCUMENTS	47
2.8.2 REGULATORY PERMITS AND PROPERTY DEEDS	48

1. EXECUTIVE SUMMARY

Wilmar International is a major agribusiness group and one of the leading global producers, processors and merchandisers of oil palm and lauric oils. The company operates in more than 50 countries located in 4 continents across the world. Wilmar operates in the entire value chain of the agricultural commodities production and processing; from growing, processing, transportation, and branding to merchandising. As a global leader in the agricultural commodities business, Wilmar is committed to ensuring that its operations meet international best practices as well as social and environmental sustainability requirements.

As part of the company's strategy to expand its palm oil production business in Africa, Wilmar set up Biase Plantations Limited (BPL) a fully owned subsidiary of Wilmar Africa Investment Ltd which in turn is a direct wholly owned subsidiary of Wilmar International. Biase Plantations Ltd is fully registered in the Cross River State of Nigeria and issued with a Certificate of incorporation under the Nigeria's Companies and Allied Matters Act of 1990 in 10th February 2011. Biase Plantations Limited currently has three estates in the Biase and Akamkpa Local Government areas of the Cross River State in Nigeria. These are the Biase Estate, Ibiae Estate and the Calaro Estate. In 2012, Biase Plantations Ltd initiated steps to expand its operations in the Calaro axis of its operations and hence acquired an additional land area for new plantings at Calaro Extension. Calaro Extension is an extension of the Calaro estates operated by Biase Plantations Limited and the area shares boundaries with the western corners of the Calaro Estate and consists of bush-fallows, farmlands as well as degraded forests.

The concession has a total size of 2,368.94 ha and has never been planted with any commercial oil palms. The assessors used GIS base maps, created using vector layer data for roads, perennial rivers, administrative boundaries from IUCN (International Union for Nature of Conservation) database and the Digital Chart of the World (DCW). Due to a planimetric error, maps generated and used in the Soils and Topography Surveys, SEI and HCV Assessments were based on 2,367.45ha, which is 1.49ha less than the actual map of 2,368.95ha. This difference is non-significant and will not impede the final management plan put in place by the company.

The Calaro Extension concession straddles two local government areas. The Uwet axis is located in the Akamkpa Local Government Area, whilst the Atan Odot axis is located in the Odukpani Local Government Area. The concession is located North of Calabar, and South of the villages of Atan Odot and Uwet. Mainly the Uwet Odot Forest Reserve borders it on the north side and the Oban Forest Reserve also borders it to the southeast side. There are farmlands and community lands mainly in the northeast and the southwestern parts of the concession.

As a member of the Roundtable on Sustainable Palm Oil (RSPO), Wilmar and all its subsidiaries including BPL are committed to ensuring that their operations comply with the RSPO certification requirements. An important first step to RSPO compliance requirements for new oil palm plantation development after 1st January 2010 is the RSPO New Planting Procedure (NPP) which requires all new oil palm plantation developments (i.e. those for which no work had commenced prior to 1st January 2010) to undergo a comprehensive independent impact assessment, including High Conservation Value (HCV) assessment, prior to conversion of natural vegetation. The HCV assessment report commissioned by BPL is aimed at fulfilling both the company's sustainability policy requirements and the RSPO NPP requirements.

Under the RSPO, oil palm plantation establishment is prohibited in all areas that contain primary forests, high conservation values. Peatlands and local people's lands are also identified in the process. Based on the field

findings and from state and community level consultations, the HCV assessment team of Calaro Extension Estate makes the following conclusions:

- ✓ That the allocated concession <u>does not consist of primary forests</u>, as defined under the RSPO requirements. Sections 4 and 5 of the HCV assessment report illustrating the nature of the vegetation to be mainly farmlands, bush fallows and secondary regrowth. That notwithstanding, there are patches of less degraded areas with tree cover within the concession and areas containing swamp forests which are recommended for protection.
- ✓ That <u>there are no peatlands</u> within the concessions.
- ✓ That there are communities living close to the concessions who hold claims of traditional tenure over parts of the concession area, and who need to be engaged with so as to ensure that the company's operations are carried out with their full consent and that plantation establishment does not impinge on these claims/rights without their Free, Prior and Informed Consent. Local peoples' land has been identified around the small village of Akpa-Uwet and 94 ha of concession land will be set aside to meet the future expansion need of the people of the village, and 17 ha for the people of Okopedi and Efi-Efeum. A team from Biase Plantations Limited had begun the process to engage with local communities towards this end.

The High Conservation Values (HCVs) within the concessions have been duly identified and mapped during the assessment process. **HCV 4.1** in particular will have to be delineated in the field and mapped systematically as land preparation process progresses. The HCVs observed in the concession do not prohibit the establishment of an oil palm plantation and an associated mill. However, the HCVs will have to be managed to ensure their continued existence and maintenance. Recommendations on managing the HCVs are presented in the HCV assessment report.

A soil and topography survey also proves that the area is suitable for the establishment of oil palm plantation. A FPIC process was also duly followed with local communities and results of the process are expressed in the reports. Given the above conclusions and the feedback from BPL's community engagement process, the concession is considered to be generally suitable for oil palm plantation establishment under the RSPO's New Plantings guidance. That notwithstanding, all identified HCVs and HCS have been properly delineated on the ground and will be well managed.

1.1.1 ACQUISITION OF THE CALARO EXTENSION CONCESSION BY WILMAR

The Cross River State Ministry of Agriculture on behalf of Wilmar undertook the land acquisition for the Calaro Extension Oil Palm Project. Three land owners (Uwet Community in Akamkpa LGA), and (Atan Odot Community and Ikot Eyidok Family Unit of Etak Inoi Community, Odukpani LGA), were involved. The CRS government and Wilmar signed a Deed of Grant that specifies the conditions for lease of the land. The duration of lease of the concession to Biase Plantations Ltd, according to the Deed of Grant, is Ninety-nine years (99 years) less one month. The Deed of Grant also stated that Wilmar paid to the CRS Government to cover compensation to the host communities for economic crops and all unexhausted improvements on the land and infrastructural developments in the area, in addition to a one-time payment to the communities as was agreed for the performance of traditional rites required for acquisition of the land.

Based on the Social Impact Assessment, it appears that although some potential negative impacts are foreseen, the landlord communities generally believe that the project would have overall net positive impacts on the populations and communities in the area. The various social groups in the host communities

indicated their unanimous acceptance of, and support for the project and are not contesting the lease of the concession to Biase Plantation Limited. The consensus of the State-level stakeholders' consultation was that the development would have net positive impacts if carried out according to the laid-down regulations and terms agreed with the communities and the State government.

1.2 SOCIAL IMPACT STATEMENT

The findings of the SIA carried out by Proforest in the concession area for Biase Plantations Ltd suggest that the development will create long and short term employment, rural development and business opportunities not only for the local populations in the landlord communities but also for other communities near and far. The proposed intervention was also found to be consistent with the Cross River State agricultural policies and planning and will represent a major investment in oil palm development in the State and in Nigeria at large, thus representing a positive social benefit for the Nigerian economy as a whole. These benefits, notwithstanding, the intervention could potentially impact adversely on local populations' access to farmlands and other natural resources. Although the potential negative impacts may not constitute a serious flaw of the project, recommendations have been provided in which to be adopted and implemented by Biase Plantations Ltd to ensure that the potential negative impacts are minimized, if not completely avoided.

From the Environmental Impact Assessment (EIA) study conducted by a consultancy firm - Andelsta Limited, it can be concluded that the presence of Calaro Extension estates poses potential impacts towards the environment of the area. The possible environmental impact that can occur in this project can be divided into 4 phases of its development namely, Site preparation/Construction phase, Palm oil base/Company phase, Operation & Maintenance phase and Decommissioning phase. These impact can be broadly summarized as increased soil and vegetative cover disturbance, existence of solid and liquid effluents, reduction in water quality, reduction in air quality and increased air emission in terms of use of combustion engines, increased in noise level, increased in surface run-off, increased in soil erosion and sedimentation, increased in soil fertility and finally potential for open burning. The EIA study that has been done by an EIA accredited consultant in Nigeria - Andelsta Limited, concluded several things that need to be highlighted as follows:

- a. The proposed project if implemented, shall boost Oil Palm, Palm Kernel Oil (PKO) and Palm Kernel Cake (PKC) production and the production of other related by-products.
- b. The proposed project shall provide employment for Cross River indigenes, create jobs, boost the state economy, and overall support sustainability in the state.
- c. The proposed project would assist in training University students in the field of agriculture and molecular biology during Industrial attachment periods.
- d. The project shall also improve agricultural skills and other technical skills of workers and staff of the company.
- e. The Company shall ensure that the proposed project is implemented and operated in a manner that would not impact adversely on the immediate environment.
- f. There is a general conclusion that the proposed project shall impact positively on the socio-economic lives of the people with respect to income generation, job creation, skill acquisition, employment opportunities, poverty reduction, food security, confidence, motivation and general self-esteems.
- g. Adequate mitigation measures shall be put in place or implemented to minimize odour, smoke and particulate matter emissions and disease vectors from the operation of the proposed project and to control wastes and erosion caused by the implementation of the proposed project and its activities.

The EIA Final report after going through the panel review process and pending approval by the Federal Ministry of Environment, will be supported with an Environmental Management Plan (EMP) and a Waste Management Plan (WMP) of the project to be used by the company.

1.2.1 SOCIAL AND ENVIRONMENTAL IMPACT ASSESSMENT (SEIA) RESULT

The Social & Environmental Impact Assessments were detailed, comprehensive and professionally carried out. The management plans included the findings of the EIA, HCV and SIA assessments by consultants approved by the RSPO – Proforest, and for the EIA, a consultant approved by the Nigerian Government – Andelsta Ltd. Biase Plantations Ltd has adhered to the RSPO New Planting Procedures and has documented the assessments and plans according to the RSPO NPP endorsed by the Board of Governors on 20th November 2015. The CB auditors conducted desktop study, verified all the related documents and conducted site visit from 10th to 12th March 2016, and confirmed that the assessment and management plans are comprehensive, professional and in compliance to the applicable RSPO P&C - version 2013. The CB conducted field verification at Atan Odot axis of the concession, Akpa Uwet enclave, Okopedi-Uwet & Effeffiom-Uwet communities. Additionally, the audit team also checked on the HCV/HCS areas, and asked questions to the local people duelling close to the area.

1.3 SCOPE OF THE SEIA AND HCV ASSESSMENTS

ORGANIZATIONAL INFORMATION / CONTACT PERSON

Table 1: Contacts details of the company are as follows:		
Company Name:	Biase Plantations Limited	
Address:	Calaro Estate, Mbarakom village	
	Sub District: Akamkpa Local Government Area	
	District: Cross River State	
	Country: Nigeria	
Contact Person:	Ir. Asen Ako & Mr. Ahmad Mustaffa Goh	
Telephone:	+234 8158066794 (Ir. Asen Ako) and +234 8099107056 (Mr. Mustaffa Goh)	
Email:	asen.ako@ng.wilmar-intl.com & ahmad.goh@ng.wilmar-intl.com	
Capitals Status:	Foreign Investment Company	
Status Business Land:	Country Lease	
Total Area:	2,368. 94 ha (Calaro Extension Estate)	

1.3.1 REFERENCE DOCUMENTS

1.3.2 LISTS OF REPORTS

- i. Social Impact Assessment of the Calaro Extension oil palm concession for Biase Plantations Ltd, Cross River State, Nigeria. September 2014, by Proforest.
- ii. An assessment of High Conservation Values in the Calaro Extension Estate of Biase Plantations Ltd, Cross River State, Nigeria. September 2014, by Proforest.
- iii. Environmental Impact Assessment (EIA) of Calaro Extension oil palm plantations, Biase Plantations Ltd, Nigeria, of November 2015, by Andelsta Ltd Consultants.
- iv. Deed of Grant and/or Permit register.
- v. Land release and compensation record from local government/privatization council.
- vi. Minutes of Meetings with Communities on Public awareness of the Project (FPIC- Free Prior and Informed Consent).
- vii. Soil and Feasibility Report by Dr. Param.

1.3.3 LIST OF LEGAL DOCUMENTS, REGULATORY PERMITS AND PROPERTY DEEDS RELATED TO AREAS ASSESSED

1.3.4 LEGAL DOCUMENTS

Table 2: The list of legal documents reviewed				
No	Legal document	Year Enacted		
1	The Cross River State of Nigeria Forestry Commission Law	2010		
2	National Environmental (Control of Bush, Forest Fires and Open Burning)	2011		
	Regulations			
3	National Environmental (Surface and Groundwater Quality Control) Regulations	2011		
4	National Environmental (Watershed, Mountainous, Hilly and Catchment Areas)	2009		
	Regulations			
5	Federal Environmental Protection Agency Act	1988		
6	National Biodiversity Strategy and Action Plan			
7	National Minimum Wage (Amendment) Act	2000		
8	National Policy on Environment	1999		
9	National Environmental (Sanitation and Wastes Control) Regulations	2009		
10	The National Environmental (Watershed, Hilly, Mountainous and Catchment	2009		
	Areas) Regulations			
11	National Land Use Act	1978		
12	Water Use Act	1993/2004		

1.3.5 REGULATORY PERMITS AND PROPERTY DEEDS

The regulatory permits reviewed as part of this assessment includes:

Table 3	Table 3: Relevant legal documents, regulatory permits and property deeds of BPL		
No.	Permits	Remarks	
1	Memorandum of Understanding	Memorandum of Understanding between the Cross River state council on privatization and Uwet & Atan-Odot Communities/Ikot	
	Understanding	Eyidok Family, acquiring the said lands for oil palm plantation establishment	
2	MoU	With all landlord communities and company.	
2	Deeds of Grant	CR Government agreement with Biase Plantations Limited leasing the said lands to BPL for a period of 99 years	
3	Environmental Impact Assessment (EIA) of Calaro Extension oil palm plantation	First site verification exercise on 15 April 2015 by Federal Ministry of Environment has been concluded that EIA study need final panel review to produce the EIA final report. Second site visitation was carried on the 19 th November 2015 by a panel selected by the federal ministry of environment, followed by the EIA Panel Review on the 20 th November 2015. The project having gone successfully through the EIA Panel Review process under the Federal Ministry Environment, will be issued the EIA Certificate.	

1.4 LOCATION MAPS – BOTH AT LANDSCAPE LEVEL AND PROPERTY LEVEL

1.4.1 LOCATION OF THE PLANTATION (CALARO EXTENSION ESTATE) IN CROSS RIVER STATE, NIGERIA

The Calaro Extension Estate is located in the Akamkpa and Odukpani Local Government Area in the Southern Senatorial District of the Cross River State. Calaro Extension Estate lies approximately 60Km north of Calabar on the Calabar-Uyo highway, in the vicinity of the Cross River, with its westernmost edge at 5°13'N and 8°11'E. Two main villages surround the estate, they are Uwet and Atan-Odot.



1.4.2 Location Map of Nigeria

Figure 1: Map of Africa showing Nigeria



Figure 2: Map of Nigeria showing Cross River State



Figure 3: Satellite layout Plan of the proposed Calaro Extension Area.

1.4.3 LANDSCAPE MAP OF THE PROPOSED LAND (CALARO EXTENSION ESTATE)



Figure 4: Map of the Calaro Extension Estate showing different protected areas in the landscape

1.5 AREA OF NEW PLANTINGS AND TIME-PLAN FOR NEW PLANTINGS

As defined by RSPO Procedure for New Planting Guidance document dated 12 May 2010, all of the total area of Calaro Extension Estate which is 2,368.94 ha, will undergo the new planting procedure following the July 2015 updates. The company intends to plant all the available areas within the Estate with oil palm except the identified HCV/HCS management areas and the recommended buffer zone limits for protection of water bodies. The company plans to start development of the 2,368.94 ha by October 2016, and to complete land clearing and planting in 2017.

1.6 ASSESSMENT PROCESS AND PROCEDURES

HCV and Social Environmental Impact Assessors with their credentials

The HCV assessment process was led by RSPO approved HCV assessors from Proforest, working together with a team of local experts in Nigeria. The table below outlines the key team members and their respective roles in the assessment process.

Name	Organization	Role
Isaac Abban-Mensah	Proforest	Team Leader HCV Assessment
Abraham Baffoe	Proforest	General oversight
David Kenfack	Centre for Tropical Forest Science &	Team Lead, carbon stock
	Smithsonian Global Earth Observatory	
James Olabi Odey	Development in Nigeria	Team Leader, social survey
Emmanuel Danquah	KNUST	Team leader, fauna survey
Ashikem Akomaye	Independent Consultant	Flora survey
Joseph Ugbe	Independent Consultant	Fauna survey
David Kenfack	Independent Consultant	Carbon stocks assessment
Emmanuel Owan	Development in Nigeria	Flora survey team member
Mary Undebe	Development in Nigeria	Social survey team member
Mercy Rabi	Development in Nigeria	Social survey team member

Table 4: HCV Assessment team members and their roles in the assessment

Community facilitators on HCV assessment – Victor E. Bassey, Nsa Emmanuel Effiong, Emmanuel Effiong Bassey, Asuquo Effiong Okon, Emeka Nwoka, Bassey Bassey Nyong, Asuquo Effiong Asuquo. Meanwhile the SIA was carried out by a team of specialists from Proforest and African Research Association Managing Development in Nigeria (ARADIN). The experts combined have several years of experience in carrying out social impact assessment for forestry and agricultural projects in several countries in Africa including Ghana, Nigeria, Cameroon and Gabon. The team included:

Name	Expertise and role in the assessment	
Isaac Abban-Mensah	Agricultural and socio-cultural expert, Team Leader	
Elikplim Agbitor	Social and best practice, team member	
James Odey	Sociologist, Team member	
Mary Undebe	Social researcher, Team member	
Mercy Rabi	Social researcher, Team member	
Emmanuel Owan	Social and environmental expert	

Table 5: SIA team members and their roles in the assessment

1.7 ASSESSMENT METHODS USED IN THE HCV AND SOCIAL ENVIRONMENTAL IMPACT ASSESSMENT

1.7.1 HCV Assessment methods (data sources, data collection, dates, programme, places visited)

The HCV assessment was undertaken in three parts with stakeholder consultations being an integral part of each phase of the assessment process. The first part of the assessment was the scoping of the concession, followed by the HCV pre-assessment and then the field assessment and verification of HCVs. The objective of the scoping visit was to allow Proforest as the lead organisation to have an overview of the vegetation cover of the concession and to identify any other special features and socio-cultural characteristics of the host communities that deserves special attention during the assessment process. The pre-assessment entailed gathering available documents, reports and information about the concessions and the landscape which the concession forms part, through desktop and web-based study aimed at identifying potential HCVs and their locations in the concessions. It was also used to enhance understanding of expertise, resources and time requirements needed for the field assessment and verification.

The field assessment aimed at identifying all the biological, ecological and social HCVs and the areas where these attributes are found, and to make appropriate management recommendations for BPL to maintain or enhance the values in those areas that make them HCVs. Additionally, two rounds of stakeholder consultations at the state level and with the host communities were carried out. The consultations that were carried out prior to and after the field assessments aimed at eliciting stakeholders' input into the assessment process and the HCV management recommendations respectively. The initial consultations were held during the scoping activity on 21st October 2012 and during the main assessment in the month of March 2014. The draft report was presented to stakeholders at public consultation reports in July, 2014. In addition to these formal consultations, the individual host communities were consulted throughout the socio-economic survey process. The objectives of the stakeholder consultations were to ensure key stakeholders were informed of the project, to enable them provide relevant information needed for the HCV assessment, and to allow them to contribute to the assessment process. It was also aimed at soliciting stakeholders' inputs in identifying HCVs present in the concessions and in the landscape, and contributing to the HCV management and monitoring recommendations that are highlighted in the HCV assessment report and are to be further elaborated and implemented by BPL. In the HCV assessment report includes the comments and inputs of all stakeholders consulted during the assessment.

A number of field surveys were conducted as part of the assessment methodology to capture primary information about the concession. These included:

1.7.1.1 FLORA SURVEYS:

To be able to obtain an overview of the concession area, the sampling design aimed at achieving a 1% sampling effort. A number of 1 ha sampling plots was systematically overlaid on the concession map. This layout ensured an adequate coverage of concession edges, swampy vegetations, secondary regeneration, bush fallows and farmlands. Twenty-five of such 1 ha plots were laid out on the concession map to attain a 1% sampling intensity. Each 1 ha plot consisted of a 20 m X 500 m strip laid on transects running north-west to south east. Each 500m x 20m plot was then sub-divided into twenty-five 20m X 20m quadrats. The edges of each quadrat were flagged and the team took a detailed inventory of plants in the quadrats. All trees and lianas with diameters at breast height of 10 cm or more were recorded. Additionally, other biophysical features in the concession were recorded.

1.7.1.2 FAUNA SURVEYS:

The sampled fauna environment included large mammals, small terrestrial mammals, avifauna and herpetofauna. Sampling was conducted in March 2014 along selected trails and transects in 10 systematically distributed sampling plots (500m x 500m) (Figure 1). These plots were laid in a manner as to capture all vegetation types in the concession. Additionally, transect walks were conducted.

The survey had the following objectives:

- Survey the fauna (large mammals, small terrestrial mammals, avifauna and herpetofauna) of the Calaro Extension area;
- Identify all the fauna and generate species list for the study area using the latest scientific and common names, and classifying species according to the National Ranking in IUCN/WCMC's Nigeria Biodiversity Report (1988);
- Investigate the presence or absence of threatened animal (vertebrate) species as defined by the IUCN; and
- Establish whether or not there are factors relating to fauna that may preclude oil palm plantation operations in the area.

1.8 SOCIO-ECONOMIC SURVEYS:

The HCV assessment was conducted concurrently with the social impact assessment. To prevent duplication of efforts, the SIA team was trained on the HCV concept and data collection tools were designed to be able to also capture social HCVs in the area. The socio-economic and cultural surveys took place between March 2014 and May 2014. Data collection involved a series of household surveys, focus group discussions, participatory community mapping and town hall meetings.

For each of the target communities, the socio-economic surveys began with a town hall meeting, followed with household surveys, focus group discussions and participatory mapping of resources. The town hall meetings brought together the community members for an introduction to the mission and a preliminary discussion on likely HCV and socio-cultural and traditional values that the company needs to be aware of, so as to ensure that the oil palm plantations development does not unduly affect those values.

1.8.1 SIA methods (data sources, data collection, dates, programme, places visited)

The overall methodology for the SIA was based on the requirements of the Calabar State laws and best international practice. The chronology of activities carried out during the impact assessment included:

1.8.2 Review of concession maps and definition of impact area

The first step of the assessment was review of the concessions maps that form the basis for the assessment team in defining the impacts of the proposed project. The map review was supplemented with field visits to the concession to provide a better understanding of the geographic limits of the area and the communities and population of the area as part of the scoping visit.

1.8.3 Reconnaissance survey/scoping exercise

Prior to the commencement of the SIA, a scoping visit was undertaken to the concession as an initial assessment of likely impacts of the proposed oil palm development. The objective of the scoping visit was to obtain a general overview of the concession, current landuse of the area and to identify key social issues that need to be investigated during the assessment process. Additionally, the scoping visit was to enable the assessment team to consult with various stakeholders to solicit their views on the assessment process and

also to have a better understanding of what needs to be done and the expertise requirements for the assessment.

1.8.4 Review of data, laws and publications to gather baseline data

As part of the preparatory work for the assessment, the assessment team reviewed secondary data and information on local communities located within and around the concessions to obtain basic information on the general economy of the communities, demography and cultural attributes of the people in the communities and how they use the concession area. This review was very useful as it enhanced the team's understanding of what additional primary data needed to be collected during primary data collection in the field. It also enhanced the assessment team's understanding of the legal requirements within which the assessment must be carried out.

1.8.5 State level stakeholder consultations

There were two rounds of state level consultations:

The first was prior to field survey. The purpose of this initial consultation was to get a better understanding of the state's agricultural policy and planning for the landscape in which the concessions form part. This was also to understand the processes that Biase Plantation Ltd went through in acquiring the concession and finally to solicit inputs from experts on what they consider as the key potential social impacts of the proposed intervention.

Second round of state level consultations was carried out after completion of the field data collection and drafting of proposed recommendations. The objective of this second level consultation was to share the field findings and to solicit inputs and comments on the recommended mitigation measures for mitigating the potential negative impacts.

1.8.6 Field survey and host communities' consultations

The field survey mainly focused on the communities that could potentially be impacted by the proposed oil palm plantation development. The field survey and community consultations were carried out to:

- a) Understand key community level stakeholders;
- b) Understand the socio-economical patterns of the area: demography, administrative structure, ethnic composition, social organisation of the local communities including conflict management processes;
- c) Inventory the infrastructure, especially for education, health and sanitation of those communities;
- d) Estimate the populations of the various communities and;
- e) Classify the importance of the different economic activities of the communities in the assessment area;

The following survey tools were used during the field surveys:

- a) Semi-structured interviews: This is an information collecting technique conducted in a fairly open framework that allows for focused, conversational, two-way communication between the interviewer and the interviewees.
- b) Household questionnaire surveys: Structured questionnaires were administered to household members to obtain various kinds of information including household sizes, occupation of household members, literacy, income, etc.

- c) Participatory mapping: This approach was extensively used for this assessment. In using this approach, a very simplified map of the area was presented to the various groups requesting them to indicate traditional and customary use areas. This exercise helps to delineate local communities' farms, hunting and fishing areas, NTFP harvesting zones and sacred and cultural sites.
- d) Focus group discussions: Focus group which is defined as the people in a village that are specialised in a particular activity: hunters, fishermen, women, etc. The focus group approach adopted enabled the team to acquire more detailed information about different activities that were being investigated, especially the area of activity, technique of hunting or fishing and quantity captured, species captured, seasonality of the activity etc.
- e) Brainstorming: This tool is useful for generating ideas with a group of people. It stimulates the creative thinking when researching a solution to a problem. It aims to generate as many ideas as possible on a specific theme without critic or judgement. This group methodology gives priority to quantity, spontaneity and imagination. It gives the interviewer a database that could be used in the analysis. This approach was extremely useful in soliciting ideas from the community groups.
- f) SWOT analysis: This tool allows the collective evaluation of the public facilities installed in the village, the basic needs of the population interviewed, the strengths and weaknesses of the various villages and the intervention required for the administrative services to satisfy those needs.
- g) Household surveys.

1.9 SAMPLING PROCEDURE

In carrying out the surveys, a stratified random sampling approach was adopted. For this assessment, a household was defined as a number of persons that may not necessarily live under the same roof, but share the same means of livelihoods and respect the authority of a common head. The main criteria used for the household selection were: ethnicity, migration status, gender of the household head, socioeconomic status as perceived by local team members and settlement quarters where the household resides. In preparation for household selection, the team created a sampling frame with a list of all householders in the three landlord communities. The list of households created enabled the team select households for involvement in the household survey.

The social impact assessment exercise involved the community in discussing and providing information related to:

- Demography, particularly household population, size, those living outside the community, occupation, culture and traditions;
- Education levels children and adults disaggregated by gender;
- Existing community groups, their functionality, knowledge;
- The local economy, focusing on economic activities and levels of household income
- Infrastructure and services provided by the government and community efforts; High Conservation Value Area (HCVA);
- Perceived positive and negative impact of the operations of the concession to community;
- Access to Land, use and rights and community consent for the operations of the concessions;
- Concession negotiation process and Memorandum of Understanding (MOU) with landlord communities;
- Main crop and cash crops cultivated by communities;
- Natural resources and Non Timber Forest Products, (NTFPs).

Considering the primary purpose of the assessment, the Social study adopted standard household survey, focus group discussions (FGDs) and key informant interviews in data collection. The study was designed in such a way that household surveys, key informant interviews and focus group discussions (FGDs) were conducted simultaneously in each of the study villages. A combination of these tools and methodologies allowed the social team to have a good idea of the composition of each community, to identify the potential conflict with and/or within a community, to estimate the local economy patterns, and to delineate the HCV areas.

2. SUMMARY OF FINDINGS

2.1 SOCIAL ENVIRONMENTAL IMPACT ASSESSMENT

The major findings of the SIA are summarized under the following sections:

- Fit with the State agricultural policy and planning
- Potential positive impacts
- Potential negative impacts
- No development option.
- The significance of the positive and negative impacts of each of the impact areas has also been highlighted.
- Fit with the state agriculture policy and land use planning

Agriculture is the leading non-oil (non-petroleum) revenue contributor to the Cross River State's economy and it is estimated to employ at least 70 percent of the State's labour force. Recognizing the favourable climatic and edaphic factors for the cultivation of oil palm, rubber and cocoa, the state agricultural programme identifies these crops as the main focus of agricultural cash crops. Additionally, the state government is currently promoting oil palm development, as it is perceived as having the potential of addressing the high unemployment rate in the state. Furthermore, portions of the proposed concession was acquired for oil palm plantations development in the early 1960s, making the concession and its location strategically important for oil palm development and thus consistent with the spatial land use planning of the state.

2.1.1 POTENTIAL POSITIVE IMPACTS

The following are some of the potential positive socio-economic benefits of the proposed development of the agro-industrial oil palm plantation.

2.1.1.1 Employment creation

Agro-industrial oil palm plantation development and processing activities require huge amounts of skilled and unskilled labour. Given the high level of unemployment in the host communities (as high as 54% in Atan Odot), this intervention could contribute greatly to addressing the unemployment problems and thus reduce the rural poverty situation of the area.

2.1.1.2 Commercial opportunities for small and medium scale local businesses

The influx of workers brings with it the opportunity to establish local businesses to cater for their needs. These include shops which supply a variety of goods; building and renting of houses to cater for accommodation needs; provision of services such as transportation, etc. Additionally, the presence and proximity of the company's mill would potentially provide ready market for palm fruits from smallholders within the project catchment area. These would, invariably, provide a boost for the local economy.

2.1.1.3 Improved income and standards of living

Given the large number of workers that will potentially receive regular income, coupled with the indirect employment resulting from the opportunities the company's operations present for small businesses, the project would enhance the purchasing power of communities which could potentially reduce rural poverty and improve standards of living. Subsequently, people would be able to provide better opportunities for their families, key among them being education and healthcare which account for a significant proportion of household expenditure as was evident from the household survey results.

2.1.1.4 Benefits of introduction of high yielding oil palm varieties

It has long been established that a major contributing factor to the low productivity of oil palm plantations in West Africa is the use of low-yielding palm varieties. As a result, Biase Plantations Ltd is sourcing high yielding oil palm planting materials from Indonesia. Although the initial focus is on the company's nucleus estates, there is potential for the company to start production of high yielding oil palm planting materials onsite for smallholder and out-grower systems. This would undoubtedly enhance productivity of smallholder farms that will potentially lead to higher income for farmers thereby enhancing their livelihood.

2.1.1.5 Training and capacity building for employees and smallholders

Biase Plantations Ltd intends to build the capacity of its staff and field workers to enable them discharge their duties effectively and efficiently. This would include training on best agronomic practices and sustainable palm oil production. Staff and workers of the company will not only use the knowledge and experience from the training and capacity building programmes to enhance productivity in Biase Plantations Ltd operations, but would also extend the knowledge and expertise to their private farms thereby enhancing efficiency and sustainable practices in palm oil production in the project catchment area.

2.1.1.6 Tax revenue and economic benefit for the state and national economy

As a company committed to ensuring that its operations comply with Nigerian legal requirements and best international practices, it is expected that Biase Plantations Ltd is expected to honour all tax obligations (corporate and income tax). State revenue from personal income tax is expected to increase as a result of the employments that would be generated.

2.1.1.7 Contribution to reducing the domestic palm oil deficit

Nigeria currently has a shortfall in domestic supply of over 460,000 tonnes of palm oil annually. The county therefore imports as much oil to meet the domestic demand. The output from the company's mills will therefore make quite significant contributions to bridging the demand-supply gap and reduce the international trade deficit.

2.1.1.8 Revenue to local communities through royalties

According to the host communities, they have received combined estimated amount excess more than 22 million Naira currency from Wilmar as compensation and appeasement fees. Additionally, as contained in the Deed of Grant between the Cross River State Government (on behalf of the communities) and Biase Plantations Ltd., the company would pay an annual ground rent to the host communities which is subject to upward review at a rate of 20% every ten (10) years. The ground rent would constitute a source of revenue to the local communities.

2.1.1.9 Contribution to rural development

The bedrock of development in any community is education, particularly higher education. The household surveys conducted during this SIA however revealed the low level of tertiary education in the host communities. In the Deed of Grant between the company and the CRS government, the company is expected to provide scholarships for tertiary education to indigenes of the host communities. Furthermore, the Deed states that the company shall, as part of its corporate social responsibility policy, assist the host communities in the provision of facilities as shall be mutually agreed between the company and the communities. This suggests the provision of social amenities such as schools, roads, health centres, potable water, electricity, etc. which will contribute immensely to the development of the communities.

2.1.2 POTENTIAL NEGATIVE IMPACTS

The potential negative impacts include:

- Loss of farmlands, biodiversity, community conservation and NTFP areas
- Local farmers who have farms within the concession would lose their farmlands.
- Additionally, access road construction and other activities that may take place outside of the concession could affect farmlands. During the community consultations, it was also mentioned that parts of the concession are home to some forms of biodiversity, although the larger concentration is in the surrounding forests. Such NTFP and biodiversity areas in the concession may be lost if plantation activities are not properly handled. Construction of access roads may also open up the area and provide access for illegal timber extraction from the forests.

2.1.2.1 Impacts on food sufficiency

The proposed project has the potential of affecting food sufficiency if land for food crop cultivation becomes a significant problem as a result of the project. A shortfall in local food production could potentially cause an increase in the price of food. However, the impact on food security resulting from the direct conversion of farmlands was identified to be minimal given that the communities indicated that most of their farmlands were outside the concession. Furthermore, the company excised 500ha of land from the original concession as community farmlands as a means of addressing the anticipated impact.

2.1.2.2 Influx of plantation workers and impacts on social networks

Presence of large numbers of migrant workers from different cultures could lead to social conflicts and long-term erosion of the communities' ways of life, cultural norms and practices.

2.1.2.3 Water, Air and noise pollution

Agrochemicals such as fertilizers, herbicides and pesticides could end up in water bodies if due care is not exercised in their application. The palm oil mill effluent (POME) could be a potential source of water pollution should a mill be established on site. For environmental and health considerations, the POME will be discharge only after proper treatment following international best practices. Any pollution of water could have adverse health implications for people who depend on those water sources, as well as for aquatic life. Furthermore, chemical fumes from spraying and fogging, dust from construction sites and vehicular movement, smoke and particulate matter from the mill (should one be established on site), and methane from effluent ponds as a result of digestion of POME could also be sources of air pollution and GHG emissions. Additionally, construction and decommissioning works, and operation of equipment and machinery are likely to generate considerable noise. To some degree, site and mill workers could be exposed to noise levels that may be considered a danger to their hearing.

2.1.2.4 Occupational and public health and safety risks

The movement of vehicles and machinery through the communities could pose a potential threat of injury and destruction of property if not properly managed. There is also the risk of antisocial behaviour resulting from influx of migrant workers, for example: prostitution, unwanted/unplanned pregnancies and STD infections (e.g. HIV and AIDS). Workers may potentially be exposed to risks of injury from accidental contact hazardous substances, use of tools and machines.

2.1.2.5 Pressure on public infrastructure/amenities

Frequent use of communal roads by the company and associates may damage them and reduce their lifespan. The influx of workers (and their families) also has the potential of increasing pressure on housing, transportation, water, schools, health facilities, etc., some of which are already overstretched in the communities.

Table 6: Summary of potential social impacts and thei	r relative significance	
Potential Impact	Significance of impact	Significance of impact
	(before mitigation)	(after mitigation)
Positive Impacts		
Employment creation and business opportunities	High	High
Increased revenue	High	High
Contribution to education and healthcare	High	High
Contribution to rural poverty reduction	High	High
Training and capacity building for sustainable oil palm production	High	High
Contribution to rural infrastructural development	High	High
(water, sanitation, communication)		
Negative impacts		
Presence of migrant workers and potential impacts on	High	Low
local social and cultural structures		
Potential risk of anti-social behaviour due to influx of	High	Medium
migrant workers		
Loss of farmlands	Medium	Low
Loss of NTFP collection areas	Medium	Low
Loss of biodiversity	High	Low
Water and air pollution	High	Medium
Soil erosion, siltation of rivers and potential flooding	Medium	Low
Exposure of communities to health and safety risks	High	Low
Pressure on, and damage to local infrastructure (e.g. roads)	Low	Low
Occupational health and safety risks at the work place	High	Low

2.2 No development option scenario

This is an analysis of what would happen in the event that the proposed oil palm development project does not take place whiles the existing conditions continue. The result of this analysis indicated that this option would not be beneficial to the state government as it would deny them income from large tracts of land available for large scale oil palm development. It also deprives the landowners the much-needed revenue in the form of annual royalties/land rents. Furthermore, it offers no opportunity for local employment and denies the communities much needed improvements in local infrastructure. Additionally, there is a need to reduce Nigeria's reliance on imported palm oil of over 460,000 tons a year when the potential exists in country to be self-sufficient. Already such imports are costing a large proportion of Nigeria's foreign exchange earnings, and with Nigeria's increasing population, this is likely to increase in the future with the potential for impacting the country's economic growth. The 'no development option' would thus do very little at best to assist Cross River State in particular and Nigeria in general in development. In summary, 'no development' is not a good option for the host population, the state and national governments of Nigeria.

2.2.1 Perceived impacts on traditional environment and conservation areas

The landlord communities believe that the proposed operation will have a negative impact on the biological life of the environment consequently affecting conservation areas including riparian vegetation, sacred areas, useful plants and endangered species of fauna and flora in the area.

The potential negative impacts on environment include:

- Water pollution due to agro-chemicals, sewage from worker's camps and POME
- Potential conversion of traditional conservation areas including riparian vegetation
- Pollution from hazardous substances
- Impacts on heavy vehicles and construction activities
- Noise pollution from mill and plantations machineries
- Impacts of operations on infrastructure (roads, water)
- Potential for open burning once the area is cleared during land preparation stage.

The impacts sources from the project operational and activities shows on the table below.

Table 7: Summary of Environmental Impacts in the Calaro Extension Estate		
Source of the impacts	Medium affected / Effect of impacts	
OIL PALM NURSERY DEVELOPMENT PHASE		
Nursery site preparation	Biodiversity	
	Loss of habitats	
	Loss of plant species	
	Water bodies and Loss of riparian vegetation	
	Flooding downstream	
	Turbidity of water	
	Sheet and Soil erosion	
Nursery development and maintenance	Visual and air impacts from construction of camps	
	Pollution of water bodies and soils from use of agro-	
	chemicals	
	Wastes and sewage from nursery camp	
	Hazardous nursery wastes (polybags, empty chemical	
	containers)	
	Soil, water bodies and waste managers	
OIL PALM PLANTATION DEVELOPMENT PHASE		
Site preparation, construction of roads and	Water pollution due to increase in surface runoff	
workers quarters	Landslides and soil erosion	
	Loss of habitats and connectivity	
Use of agrochemicals (fertilizers, pesticides,	High levels of chemicals may affect water quality and	
etc.)	aquatic life forms	
	May cause eutrophication in water bodies which may	
	affect water use and aquatic life forms	

RSPO New Planting Procedure Assessment Report Calaro Extension Estate, Biase Plantations Limited – Cross River State

MILL AND PROCESSING ACTIVITIES	
Smoke and particulate Pollution from	Air pollution
transportation of FFB and from mills	
Emission of Methane from ponds as a result of	Air pollution
digestion of POME	
Discharge of untreated effluents e.g. POME	Water pollution
Solid wastes from workers quarters, mill,	Soil pollution
workshops, schedule waste etc.	
Milling activities of machines	Noise pollution
GENERALIZED IMPACTS	
Damages to public facilities and infrastructure	Damages of roads, water, etc. caused by company's
	heavy duty machines

2.3 HCV ASSESSMENT

Summaries of the HCV findings have been presented in a tabular form. However, details of the justifications of the presence or absence of a particular HCV have been presented in "Identification of HCVs" in Sections 5 of HCV assessment report. Table 6 below provides a summary of HCVs present, potentially present or absent in the BPL concessions.

Table 8: Summary of HCVs found in the Calaro Extension Estates

Legend				
Status of HCVs:	Present	Potentially present	Absent	

нсу	Description	Present	Potentially Present	Absent
HCV 1.1	Protected areas			
	Concession shares boundaries with the Uwet Odot			
	FR and Oban Block FR.			
HCV 1.2	Concentrations of rare, threatened or endangered			
	species.			
	Presence of the Slender-snouted Crocodile (CR)			
	and Sitatunga (locally endangered) in swampy			
	areas.			
HCV 1.3	Concentrations of endemic species.			
HCV 1.4	Seasonal concentration of species.			
HCV 2	Large landscape level forests.			
HCV 3	Rare, threatened or endangered ecosystems			
	Swamp vegetations serving as habitat to several			
	rare, threatened and endangered species			
HCV 4.1	Areas critical to water catchments			
	Riparian vegetation and watersheds in the			
	concession/estate			
HCV 4.2	Areas critical to erosion control			

HCV 4.3	Areas providing barriers to destructive fires		
HCV 5	Areas fundamental to meeting basic needs of local		
	communities		
	Water bodies that serve as source of water for the		
	communities		
HCV 6	Areas critical to local communities' traditional		
	cultural identity		

The findings of this assessment show that the concession does not contain any primary forest or areas of peat soils. However, the concession was found to contain HCVs 1.1; 1.2; 3; 4.1 and 5 as detailed in table 6 above. Additionally, although the concession does not necessarily contain local peoples' land, the communities requested that Biase Plantations Ltd should consider ceding part of the concession currently being occupied by the Akpa Uwet settlement.

2.3.1 HCV 1.1 Protected areas

The concession does not contain any protected areas; neither is it contained inside a Protected Area. However, the assessment found that the concession directly shares boundaries with the southern edges of Uwet Odot Forest Reserve as well as the Oban Block Forest Reserve. Given that plantation establishment would entail a significant modification of the current vegetation cover of the area and consequently reduce the area available to local communities for farming and hunting thereby shifting pressures to nearby protected areas, it is expected that recommended measures are put in place to help minimise the impacts on the protected areas.

2.3.2 HCV 1.2: Concentration of rare, threatened and endangered species

Although the concession area is particularly rich in terms of both fauna and flora diversity, most of the species found during the biological surveys are species that are commonly found in other areas and are not particularly considered as highest priority for conservation. That notwithstanding, the assessment process identified the presence of the Slender-snouted Crocodile which is known to be critically endangered as well as the Sitatunga which is also known to be locally endangered. Given the threat of extinction of the Slender-Snouted Crocodile and the significant local conservation importance of the Sitatunga, the observation of these species as well as their habitats are considered as HCV 1.2.



Figure 5: Locations of threatened species identified

2.3.3 HCV 3: Rare, threatened or endangered ecosystem

The concession contains several patches of swamp vegetations. Swamps are naturally rare in the area and their extent is being reduced due to the fact that some of them are being drained for agricultural purposes and other land uses. The assessment found that the swamp vegetations were particularly rich in biodiversity and also contained some of the rare, threatened and endangered species. Given the rarity and threat against swamps in general and the fact that the swamps serve important ecological functions, the main blocks of swamps that are present in the concession are considered as HCV.



Figure 6: Swamp vegetation serving as habitat to several species

2.3.4 HCV 4.1: Areas critical to water catchment

The assessment identified networks of rivers, streams, rivulets and creeks flowing through in the concessions. Some of them drain eastwards into the Calabar River that forms the eastern boundaries of the concession. Most importantly, a number of these water bodies are the major source of water to the myriads of communities located in the landscape. Additionally, most of these rivers and streams have good vegetations that play a crucial role in maintaining bank stability and maintaining the riparian ecosystems. All such vegetations along water bodies in the concessions have been identified as HCV 4.1 for this assessment. These streams and rivers drain into major rivers including the Calabar and the Cross River that are also known to provide an important source of fisheries resources for populations living close to the river in a number of states including the Cross River State, the Abia State and the Akwa Ibom State.

2.3.5 HCV 5: Areas fundamental to meeting basic needs of local communities

Given the remote nature of the major communities in the area, the local populations continue to collect NTFPs from the concessions. However, the findings of field assessment and the results of stakeholder consultations indicate that there are no concentrations of NTFPs in any specific areas of the concessions. The host communities indicated that although they do harvest NTFPs from the concessions, there are no specific places where these are concentrated. For this reason, the NTFPs were not considered as HCVs. However, given their dependencies on the water resources of the landscape, particularly the *Ababua River*, the riparian vegetation and the water-bodies are considered as HCVs and must be protected. Given that the NTFP in the landscape is diffused and that host communities do collect them from both on and outside of the concessions, we recommend that BPL should carry out its operations in a way that allows for access to these resources or the provision of alternatives whichever is appropriate possibly through the ongoing FPIC process.

Map of the HCV and HCS Areas



Figure 7: Map of all recommended set aside areas

Table 9: Area set aside for conservation and for future development land for the local people				
High Conservation Value (HCV) Area – Swamp vegetations	260 ha			
Secondary forests with higher carbon stocks/HCV management area	377 ha			
Riparian buffer	90 ha			
Buffer along the Uwet-Odot Forest Reserve	19 ha			
Community set-aside (Akpa Uwet enclave)	95 ha			
Community set-aside (Okopedi-Uwet and Effeffiom-Uwet)	17 ha			
Maximum area that can be developed including roads/infrastructure	1509.45			
Total concession area	2,367. 45 ha			



Figure 8: Map of concession showing recommended set aside areas

2.4 LAND USE CHANGE ANALYSIS

Land use change analysis, based on field observations and analysis of satellite imagery distinguished five vegetation classes in the concession:

- Farmlands and cleared areas
- Fallow lands
- Swamp forests and riparian areas
- Secondary forests

The following vegetation classes were not observed:

- Primary forests
- Matured secondary forests

Based on the LUC Analysis, there were no signs of any clearance of primary forest for largescale commercial oil palm cultivation before 2005. This is reflected on the species list that includes a high proportion of secondary growth indicator species such as *Macaranga spp., Musanga cecropioides, Margaritaria discoidea, Alchornea cordifolia, Harungana madagascariensis, Alstonia boonei, Cleistopholis patens*. These species represented over 30% of the total individuals in the forest. The LUC of the concession area is well captured by the SEIA and HCV maps. Carbon stock estimated for the Calaro Extension concession ranged from 0.35 t in transect 21 to 44.65 t in transect 18 and averaged 19±13 t/ha. Secondary forest accounted for 27.04% of the total area in the concession and 39.78% of the total carbon stock, followed by the swamp forests accounting for 37.5% of carbon stocks. Carbon stocks were highest for *Berlinia* sp, *Symphonia globulifera* and *Sterculia oblonga* beside *Elaeis guineensis*.

Mean carbon stock in the Calaro Extension concession acquired by Wilmar was 19 t/ha. This value is very low compared to other tropical forests. In the lowland moist evergreen forest in Korup National Park, Cameroon, carbon stock in trees with dbh≥10 cm is higher (range 100 – 267 t/ha, mean 161±35 t/ha) (Kenfack *et al.* unpublished data). In the semi-deciduous forest in Lobeké National Park, Eastern Cameroon, carbon stocks are even higher, with a mean of 187.92 t/ha (Zapfack *et al.* 2009). The low carbon stock can be attributed to the low tree density (106 individuals/ha compared to 491 individuals/ha in Korup) and the abundance of pioneer species that generally have a low wood density.

Based on the proportion of each vegetation type in the concession, the total carbon stock by trees with dbh≥10 cm can be inferred to 54,763.24 tons. Smaller sized trees with dbh [1-10 cm] were estimated to store an additional 2,800 tons of carbon, making a total of 57,563 tons of carbon in the Wilmar concession.



Figure 9: Maps of LUC analysis on the proposed Calaro Extension Land from the year 2005 to 2015.

2.9 SOILS AND TOPOGRAPHIC SURVEY (BY Dr. Param)

A 1:100,000 scale topographic map of the study area showing the 50 metre contours, roads, logging tracks and river systems were available for the site (Fig. 2.1). Based on these topographic maps a slope analysis for each site was made. The slope classes used in these maps are well explained in Table 2.1 of the report by the Consultant. The extent of these slope classes in the Calaro Extension Area are also given in the same report in Table 2.2. Based on this slope analysis the sites had mainly level, undulating, rolling and steep land. These classes were based on the slope classes used in Malaysia. The elevation of Calaro Extension Area based on the contours on the topographic maps ranges from around 10 metres to over 60 metres. A combination of slope classes and soils were used in the Preliminary Soil Crop Suitability Map for the area. Drainage in the area was generally good except adjacent to the rivers. A number of small tributaries drain the study area. Flooding is mostly localized and minimal occurring mainly during the rainy seasons.





8°14'E

Figure 10: Topographic map of Calaro Extension Area (contour interval 20 m).

8*12%


Figure 7: Soil suitability map of Calaro Extension Estate

2.10 FPIC PROCESS

The FPIC process, which is a requirement of the RSPO was carried out and the consent of the people was achieved, through a participatory process that lasted more than two years. The people were rightly informed about the negative and positive impacts of the project. All land on which individual community people had user rights were compensated accordingly, as attested by the compensation documents. A certificate of consent or MoU (Memorandum of Understanding was signed between the people and the company following the conclusion of the first phase of the FPIC process. However, the company has maintained dialogue with the villagers (Chiefs, Elders, Opinion Leaders, Youth Leader and Women Leader) to explain any doubt they might have. The community people participated in the identification of local people's land and HCVs, and the company has demarcated such land and shall be free from all development. To cater for the expansion of the village of Akpa Uwet, Okopedi-Uwet and Effeffiom-Uwet, some 111 ha of land has been set aside as local peoples' land for development. Three communities had user right over the land in question, their consent for this project was obtained following the FPIC SOP of the Company and according to the guidelines of the RSPO. The consent documents or MoU is endorsed by the community leaders and opinion holders.

2.11 INTERNAL RESPONSIBILITY

Signing off by HCV/SEIA Assessors	Acknowledgement of internal responsibility by Biase Plantations Limited
atte	I, the undersigned, being the legal representative of the inspected company, agree with the contents of this report
Name: Isaac Abban-Mensah Title: HCV Assessor team leader	Name: Simon Siburat Title: GM Group Sustainability

Page 39 of 48 2.5 APPENDIX 1. SUMMARY OF ISSUES RAISED BY STAKEHOLDER AND ASSESSORS COMMENTS

Date	Institution / Organisation	Contact person	Summary of comments
Sunday 21 st October, 2012	Wilmar/Biase Plantation	Mr. Lee Kok	The state government has been able to secure some lands ca 3,000ha for Wilmar, as an extension to the existing Calaro estate. Land demarcation and community engagement are ongoing. Wilmar would Continue with its FPIC process once the demarcation processes are completed.
Monday, 22 nd Oct, 12	Cross River Forestry Commission	Innocent Ntufam	From a preliminary look at the maps provided, the Calaro extension does not appear to impinge on the boundaries of any protected area. However, there is the need to investigate the boundaries more with the mapping unit. Plantation development can bring rural development into the communities. However, it is essential to also ensure that the nearby-protected areas are maintained. Before land preparation takes place, the Forestry Commission should be invited to conduct a census of commercial merchantable trees in the concession and prepare a bill for the Biase Plantations Ltd.
Monday, 22 nd Oct, 12	Cross River Forestry Commission	Bridgit Nkor	Blase Plantations Ltd. The initial concession maps show some overlaps with the Oban Block FR and the Uwet-Odot FR. All areas of overlap need to be excised from the concession. Additionally, it is important for the company to manage its operations in a way that minimises the pressure on adjoining protected areas. The fact that a significant portion of agricultural lands in the community is going to be taken away implies that there would be a significant pressure on the forests nearby for hunting logging and even farming. The company needs to implement steps that address these potential challenges.
Monday, 22 nd Oct, 12	CR Tourism Development Board	Tony Bassey	Oil palm plantations form part of the rural development plans of the state. This has the potential to promote rural development and open up the villages for trade. However, the plantation establishment process should effectively engage with local communities and look into providing alternatives to those who might lose livelihood sources as a result of the concession acquisition. Additionally, it would be useful for the company to

	I		Page 40 of 48
			contribute to the effective management of
			conservation efforts nearby.
Tuesday, 23 rd	Commissioner of	Raphael Uche	The commission has noted the slight overlaps with
Oct, 12	Lands		the boundaries of the concession. A team would
			be working to re-demarcate the new boundaries
			of the concession. The area that is to be given out
			is designated for agricultural development. Once
			the correct boundaries and the true extent of the
			concession has been established, it is expected
			that some compensation would be paid to the
			communities. The usual approach is also to have
			an MOU with the communities that spell out the
			responsibilities of all parties.
Saturday, 27 th	RRDC	Odey Oyama	A preliminary look at the location of the
Oct, 2012			concession indicates that it would be suitable for
			the oil palm plantation development. There is also
			the need to ensure that there are adequate
			safeguards in place to avoid the depletion of
			nearby protected areas. Additionally, the
			engagement process with the local communities
			should be free, open and transparent. Wilmar
			currently has major issues with local communities
			and overlaps with protected areas in other
			locations in the state.
24 th July, 2014	NGO Coalition	Edwin Usang	The proposed project is a potentially good one and
24 July, 2014	for the	Lawin Osang	can positively impact on the local economic
	Environment		
	Environment		landscape. However, it is critical to look into the
			implementation of appropriate safeguards to
			manage the impacts on society and the
			environment. How are those farmers who would
			lose livelihoods benefit from the programme?
			How do we ensure that the integrity of the nearby-
			protected areas is maintained?
			How well are communities engaged in decision
			making?
			How do we ensure that the recommendations
			from the HCV, SIA and EIA are well implemented
			and monitored?
24 th July, 2014	WCS	Dr Imong	Plans towards biodiversity protection in the
			concession should take an integrated landscape
			approach. Leaving patches of conservation areas
			inside the concession would have limited
			conservation significance. It is essential to look at
			how the conservation areas within the concession
			can interact with the broader landscape, and what
L	1	1	1

Page 41 of 48
is its significance. Additionally, the company
should explore the possibility of contributing to
conservation efforts in the broader landscape.

2.6 Appendix 2.

Comments from consultative meeting with host communities on SIA

Name of	Community /	Designation	Comments / suggestions / recommendations
participant	Organisation		
Asia Ekpo	Uwet	Community Representative	He wanted to find out whether Biase Plantations Limited planned to supply local oil palm farmers with improved planting materials (seedlings).
			In response to H/H Asufa's question, the General Manager for Biase Plantations Ltd. (Mr. Lee Kok Seng) stated that in the short term, the improved seedlings would be planted on Wilmar's estates. He however explained that discussions were ongoing with the CRS Ministry of Agriculture to agree on modalities for developing an outgrower scheme after which Wilmar would supply the improved seedlings to local farmers at cost of production (no profit).
Victor E.	Atan Odot	Youth	Victor mentioned that the host communities grow
Bassey		Secretary	vegetables in the mud flats along the rivers and streams after the floodwaters recede. He wanted to know whether they would be allowed to continue with this practice when Biase Plantation Limited starts operations.
			Isaac Abban-Mensah of Proforest responded that since Wilmar is a member of RSPO, they are bound to protect all riparian areas within their concession as required in the RSPO Principles and Criteria. As such, no agricultural activity would be permitted in the riparian areas within the concession.
Chief Efiong Bassey	Atan Odot	Village Elder	He requested that Biase Plantations Ltd commences operations in the concession as soon as possible. He further requested that the company carries out road construction at the outset of operations to open up the area and provide access to Atan Odot and Uwet.
			Mr. Lee, in response to the requests from Chief Bassey, stated that the company would wish to start operations soon. However, there are requirements that the company needed to meet prior to

		1	Page 42 of 48
			commencement of operations. These include SIA, EIA
			and HCV assessments that are still ongoing.
James Odey	ARADIN		James mentioned that during the public consultations conducted in the data collection phase of the assessment, the youths in Atan Odot complained that they were not engaged during consultations for land acquisition. He further mentioned that some members of the communities also stated during data collection that they did not understand the modalities for valuation of crops and the compensation. He wanted to know if these concerns still existed.
			The representatives of the various communities (and community groups) present said that the concerns mentioned by James had been addressed. They also unanimously asserted that there was broad-base consultation during the land acquisition process. Victor Bassey of Atan Odot however felt the issue of the modalities for valuation and compensation had still not been clarified adequately.
Chief Efiong Bassey	Atan Odot	Village Elder	He said that local communities have been hunting animals from the concession area for generations and wanted to know if they would be permitted to do so when operations commence.
			In response to this, Isaac Abban-Mensah of Proforest stated that a number of protected animal species were identified in the concession area during the HCV assessments. He added that it is the responsibility of the company to protect these animals. As such, hunting of these animals would not be allowed. Isaac urged the communities to assist the company in protecting those animals for posterity.
Isaac Abban- Mensah	Proforest		Isaac wanted to know if there were any sacred areas, areas of cultural importance or burial sites within the concession that needed to be protected. Response from chiefs and elders of the communities: There are no sacred areas within the concession or anywhere else on the community lands since the community members are all Christians. Neither are there burial sites since deceased persons are buried in homesteads.
Victor Effiong Bassey	Atan Odot	Youth Secretary	i. He notified participants of a group of ponds called Ababua within Wilmar's concession from which the communities fish; flood waters from the surrounding

Biase Plantations	Limited – Cross	River State	Page 13 of 18
Chief Olbort Asufa	Uwet	Village Head	Page 43 of 48 rivers and streams carry fish into these ponds. Other members of the host communities confirmed this. A request was made that Wilmar protects these ponds and grants communities access to fish from them. Isaac Abban-Mensah responded that the ponds would be mapped out as part of the HCV assessment. ii. The value of compensation paid for loss of farmlands was not adequate. We wish to know the modality used for compiling such compensation. Response from Isaac of Proforest: Compensation was determined based on the hectare and this was determined by the State Government iii. We presented a case to the government requesting a review of the land rate but are yet to receive a response. Apart from the fish stock in the Ababua ponds, bush meat and NTFPs are found everywhere in the community forests so this cannot prevent Wilmar from development. Uwet community have never had a shrine; sacrifices used to be carried out in the river but now that everybody is a Christian such practices are no longer in existence. There is a village, Akpa Uwet, close to Uwet and within the concession that should not be evicted. In response, Isaac Abban Mensah of Proforest stated that the village would be mapped out as part of the HCV assessment. Wilmar should confirm every correspondence to Wilmar from the communities as originating from the appointed community representatives by calling the community leaders. This is because there is the tendency for unappointed individuals to speak on
Dave Carbody	Heat Fridals	Community	behalf of the community without the communities' consent.
Rev. Godwin E. Asuquo	lkot Eyidok	Community Representative	If other natural resources such as solid minerals are found within the concession area, who takes ownership? Response from Isaac: Any resources below the surface do not belong to the company. In Nigeria, natural resources below the ground belong to the government so the government decides who mines such resources.

Diase i lantations	Elifited 01000		
			Page 44 of 48
Uwet & Atan			We are willing to contribute additional land to make
Odot chiefs			up the 5,000 hectares required for an oil mill to be
and elders			established in the area.
Charles Okon	Uwet	Community	We as a community are not comfortable with the
Etim		representative	rates to be paid as land rent to communities. The
			communities have communicated through the
			Ministry of Agric to his Excellency, the Governor of
			CRS for upward review.
			Now that copies of the lease agreement have been
			given to community leaders, it is important for other
			community members to be aware of the contents of
			the agreements.
			We appeal to Wilmar to help grade Atan Odot / Uwet
			road to facilitate movement in and out of the
			communities.
			We also appeal that when improved seeds are ready
			for distribution to outgrowers, it should pass through
			community leaders.

2.7 APPENDIX 3.

COMMENTS FROM CONSULTATIVE MEETING WITH STATE-LEVEL STAKEHOLDERS ON SIA

Name		Designation	Organisat	ion	Comments/suggestions/recommendations
			/Commun	ity	
Chief	Egan		Ministry	of	Wilmar for the purpose of its corporate responsibility
Anohobi			Agric.		should be ready to share hybrid seeds with other
					growers to avoid conflicts.
					Response from Mr. Lee (General Manager of Wilmar):
					Lee: In the short term, the planting materials are for
					planting on the nucleus estates. However, discussions
					are ongoing with Ministry of Agric to set up outgrower
					scheme. The members of the scheme would have to
					abide by RSPO P&C in order to be able to supply to
					Wilmar mills. There are also discussions that in the
					future, seedlings would be sold to other growers
					(independent smallholders) at cost of production (not at
					profit).
					Response from Ubane Ubi Bassey (Desk Officer, Oil palm
					 Ministry of Agric): There are ongoing discussions with
					Wilmar confirmed by Mr. Lee. Forms have been given
					out for local growers to apply to join the outgrower
					scheme and awaiting responses. Most local growers
					want to utilise their current stands before changing to
					the new variety.

Diase Fiantation	s Limited – Cro	ss River State	
			Page 45 of 48 Wilmar should engage local growers and processors
			more actively. Engagement with the Oil Palm Growers
			Association of Nigeria (OPGAN) would be a good starting
			point.
			Wilmar should consider assisting with the RSPO NI
			process.
Chief Edwi	n Executive	NGOCE	The issue of FPIC is very critical and from all indications,
Usang	Director		the community was not properly consulted. Are there
			reports of the FPIC process to be shared?
			Response from Wilmar: FPIC was conducted and the
			records are available.
			Response from Victor Bassey (Youth Secretary, Atan
			Odot): From inception of the process, the communities
			were well consulted and engaged by Wilmar and
			government consultants.
			-
			Response from Charles Okon Etim (Community
			representative, Uwet; and Wilmar staff): The State
			government informed communities of intention to lease
			land to Wilmar. Government brought in an organisation
			called Consort to facilitate the process. The communities
			(all groups) consulted internally and with government
			and Wilmar. Communities then drafted an MoU with
			Wilmar before the Deed of Grant was singed between
			the government and Wilmar. The CRS Governor was
			present at the final meeting where communities
			reiterated their concerns and later agreement was
			signed.
			Response from Ita Bassey Ita (Representative, Ikot
			Eyidok): Community was given sufficient information
			and time to consult internally and with government and
			Wilmar before accepting to host the project.
			Response from Mr. Egbai Ojah (Director, Forestry
			Commission): Wilmar consulted the Forestry
			Commission prior to development. FC did its own
			assessment of concession areas and made
			recommendations to Wilmar.
			In recognition of the fact that there are no National
			interpretations for HCV in Nigeria, it is necessary to
			develop one for Nigeria.
			Issue of contention in acquiring the Calaro Extension
			concession is critical because some issues are still in
			court whilst Wilmar is still expanding. This might have
			implication on the project development.
			Chief Edwin added that within corporate social
			responsibility there should be a benefit sharing

			Page 46 of 48
			mechanism clearly set out from the outset. The channel
			for executing the CSR should also be clearly defined.
			What are the safeguards go ensuring that Wilmar
			implements the SIA recommendations?
			Response from Elikplim Agbitor (Proforest): Accredited
			independent bodies will ensure that the RSPO guidelines
			are met in respect of all the concerns raised by
			stakeholders which are also contained in the RSPO P&C.
			This will be done through the certification and
			surveillance audits.
			Are the improved varieties GMO? This is important
			because it borders on ethical issues?
			Response from Mr. Lee (Wilmar): The improved varieties
			are not GMO. They are a result of plant breeding, with
			parent materials from Nigeria and Ghana.
			One of the touted potential positive impacts is Wilmar
			contributing to domestic palm oil deficit. Will Wilmar
			actually sell in the domestic market or export?
			Response from Mr. Lee (Wilmar): Wilmar will process
			and sell locally. Wilmar has refinery in Lagos and at the
			moment importing CPO from Malaysia and Indonesia to
			refine because of deficit in local supply. All sold locally
			under brand names such as frytol. Also sold to PZ
			cussons, uniliver, etc.
Caroline Olory	ACP	CRNP	Commented that from past experience, communities are
			seen to give consent and later decline. Wilmar and other
			relevant stakeholders should thread carefully and
			manage information appropriately to avoid conflicts in
			future.
			There should be offset activities and contributions to
			conservation efforts by Wilmar in the concession area.
Odigha Odigha	Board	CRSFC	We should look at the environmental, economic and
	Chairman		social justice issues and considers the gains of tomorrow.
			We should learn lessons from the Niger Delta experience
			and strike a balance. All issues should be factored in
			terms of cost and benefits and ensure that it fits into the
			approach of green economy. In all our practices, people,
			food security and the environment should be
			considered.
Mr. Lee Kok	General	Biase	500ha of original concession area was excised for use as
Seng	Manager	Plantations	community farm lands to ensure food security.
		Limited	,
Mr. Owali Ilem		Private	Suggests that communities should engage the services of
		investor	independent consultants to advise them on the
			inseptiment concentante to addice them on the

Diase Plantations			Page 47 of 48
			implication of their decisions while engaging with Wilmar
Liza Gadsby	Director	Pandrillus	How often does RSPO visit plantation sites to check operations? Response from Isaac (Proforest): Every year an independent assessment body comes to check operations after the main certification audit. Charged Wilmar to take note of the potentially increasing need for farmland by outsiders (non- indigenes) who would migrate into the area to take up jobs with Wilmar; this can be a critical concern and
Mr. Egbai Ojah	Director	Forestry Commission	Wilmar should plan for that eventuality. Wilmar have not respected the advice given by the forestry commission and the guideline on buffer zone protection in the Ibiae concession; concern that in Ibiae, Wilmar bulldozed and planted in riparian buffer zones resulting in siltation of streams that feed into the Cross River and constitutes the major source of water for the community. Wilmar needed to give assurance that this would not occur in other areas, including Calaro Extension. In the meantime, he urged Wilmar to provide alternative source of water for the affected community.
Victor Bassey	Community representati ve (Youth Secretary)	Uwet	Wanted to know from forestry commissioner when the boundary of the Uwet Odot Forest Reserve was extended further into Uwet community land. Response from Mr. Odigha Odigha (Board Chairman, Forestry Commission): the community should send representatives to the Forestry Commission offices for discussions on the issue.
Ruth Akagu		NCF	All through the discussions, emphasis has been on what Wilmar should do. The success of the project is however a shared responsibility of all stakeholders, communities, CSOs and government institutions; the investor (Wilmar) needs support and input of all stakeholders. All must play their part. The entire burden should not be left on Wilmar.

2.8 APPENDIX 4:

LIST OF LEGAL DOCUMENTS, REGULATORY PERMITS AND PROPERTY DEEDS RELATED TO THE **AREAS ASSESSED**

2.8.1 LEGAL DOCUMENTS

- The Cross River State of Nigeria Forestry Commission Law 2010 •
- National Environmental (Control of Bush, Forest Fires and Open Burning) Regulations, 2011 •
- National Environmental (Surface and Groundwater Quality Control) Regulations, 2011 •

• National Environmental (Watershed, Mountainous, Hilly and Catchment Areas) Regulations, 2009

Page 48 of 48

- National Minimum Wage (Amendment) Act of 2000
- National Policy on Environment 1999
- Nigeria National Biodiversity Strategy and Action Plan
- National Environmental (Sanitation and Wastes Control) Regulations 2009
- The National Environmental (Watershed, Hilly, Mountainous and Catchment Areas) Regulations, 2009
- Land Use Act of 1978

2.8.2 REGULATORY PERMITS AND PROPERTY DEEDS

- Certificate of Occupancy for the Estates
- Estate maps