Environmental and Social Management Plan (ESMP) for the Addendum ESIA for Energy Infrastructure Project Commewijne

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Contents

List of Tables

Abbreviations

BIC	Burger Informatie Centrum
BO	Local staff in the communities employed by Ministry of Regional Development and Sports (*Bestuursopzichter)*
CBB	Central Bureau for Citizens Affairs (*Centraal Bureau voor Burgerzaken*)
CHS	Cultural Heritage Specialist
CR	Community Relations
DC	District Commissioner
DR	District Council
EA	Environmental Assessment
EBS	N.V. Energie Bedrijven Suriname
EHS	Environment, Health and Safety
EPAR	Energievoorziening Paramaribo
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
GoS	Government of Suriname
HSE	Health, Safety and Environment
HSEQ	Health Safety Environment & Quality
IDB	Inter-American Development Bank
IFC	International Finance Corporation
NCPN	Internal Non-Conformity
NGO	Non-Governmental Organization
NIMOS	National Institute for Environment and Development in Suriname (*Nationaal Instituut voor Milieu en Ontwikkeling in Suriname*)
MESC	Ministry of Education, Science, and Culture
Ministry of OWT & C	Ministerie van Openbare Werken, Transport en Communicatie
MinOWC	Ministry of Education, Science and Culture
MNH	Ministry of Natural Resources (*Ministerie van Natuurlijke Hulpbronnen*)
OP	Operational Policy
PAPs	Project Affected Persons
PIU	Project Implementation Unit
PS	Performance Standard
PV	Photo Voltaic
ROC	Right Bank Commewijne River (*rechteroever Commewijnerivier*)
ROS	Ministry of Regional Development and Sports
RR	Resort Council
SIA	Social Impact Assessment
SMP	Social Management Plan

1 INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

This document presents the Environmental and Social Management Plan (ESMP) as part of the amendment to the Environmental and Social Impact Assessment (ESIA) for the Energy Infrastructure Project Commewijne; hereafter referred to as the Commewijne Project. This amendment specifically concerns the Right Bank of the Commewijne River (ROC) area.

The ESMP details the approach which includes the set of mitigation, monitoring and institutional measures, which will be followed during all phases of the project in the project area to ensure that all negative impacts on the social environment are eliminated or reduced to acceptable levels. The plan also includes actions needed to implement these measures and to ensure that responsibilities and appropriate resources are efficiently allocated to the project.

This document is intended as a dynamic document that may be continually edited and updated as new insights develop during the implementation of the project. A first update will be required upon start of project activities at a currently unknown date.

The ESMP as a minimum complies with the national laws and regulations and with international best practices. The Environmental Assessment (EA) guidelines of the National Institute for Environment and Development in Suriname (NIMOS 2009) and the Environment and Safeguards Compliance Policy (OP-703) of the IDB have been used as guidance.

1.2 PROJECT BACKGROUND

In Suriname, the Ministry of Natural Resources (*Ministerie van Natuurlijke Hulpbronnen*, MNH) has responsibility for energy policy and supervision of the energy sector. The N.V. Energie Bedrijven Suriname (EBS, borrower) is the state-owned utility company supervised by the MNH and in charge of the operation of the power system. EBS's operations entail generation, transmission, distribution and commercialization of electricity. The Government of Suriname (GoS)/EBS and the Inter-American Development Bank (IDB) have signed a loan agreement to finance operation SU-L1055. The Inter-American Development Bank (IDB or the Bank) policy requires that an Environmental and Social Impact Assessment (ESIA) is carried out by the project sponsor/borrower for all projects to be financed by the Bank with potentially significant impacts on the natural and human environment.

This Amendment applies to the upgrade and extension of the Commewijne Distribution Grid, which focuses on the ROC area and includes the following components:

1. Extending the existing12 kilo Volt (kV) network at Richelieu towards Mariënburg/ Ellen;
2. Installing an underwater 12 kV cable from Ellen to plantation Johanna & Margareta, and
3. Rehabilitation and partial re-routing of the existing distribution line at the Right Bank of the Commewijne River (ROC).

The Commewijne project also include the construction of a 200 kWp solar plant in Alliance. This has already been described and assessed in the ESIA and ESMP of 2019.

1.3 STRUCTURE OF THIS ESMP

This ESMP is made up of three parts:
Part 1: Introduction (Chapter 1): Provides brief background to the project as well as a brief description of the purpose and structure of the ESMP.

Part 2: Specifications and Procedures (Chapter 2): Explains the environmental and social specifications for the project and sets out roles and responsibilities, and suggested areas for capacity development and training.
Part 3: Monitoring (Chapter 3): Sets out the monitoring measures for implementation of the ESMP.

2 SPECIFICATIONS & PROCEDURES

2.1 INTRODUCTION

This section of the ESMP builds on the ESIA to identify feasible and cost-effective measures that may reduce potentially significant social impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective or sufficient.

2.2 MOST SIGNIFICANT IMPACTS

A description and rating of all environmental and social impacts, as well as proposed mitigation measures, have been provided in the ESIA study. One potential moderate negative social impact, and three potential minor negative impacts were identified.

Cultural heritage sites: Moderate negative social impact could result from potential disturbance of cultural heritage sites. No known cultural heritage sites will be disturbed by the project. However, given that only a small number of existing archaeological sites have been registered, chance finds may occur. Given the colonial history of the project area and previous finds related to the former plantation economy, it is not unlikely that items will be unearthed during earth moving works, e.g. to place the utility poles. It is unlikely –though not impossible- that pre-Columbian archaeological sites will be encountered in the target area. Care must be taken to not damage tangible cultural heritage.

Other negative impacts are relatively minor, and can effectively be mitigated:

- **Land tenure conflict.** EBS does not expect that any of the project works will take place on private lands. Nevertheless, since many of the plantations are partly or entirely titled out (land lease) to private land owners, it is possible that some utility poles will move to private land when they are moved land inward. Clear and transparent communication about the proposed location of the utility poles and what it means for stakeholders must be pursued.
- **Construction noise and traffic**. At the time of construction, piling of utility poles will generate noise. Very little, if any of this work will take place in or near populated areas. Also, construction traffic may temporary block the bicycle path and other trails between plantations. As these paths are currently largely overgrown with weeds, community members hardly use them. Related impacts may be minimized by warning area residents ahead of time of construction activities, specifying dates, duration, type of activities and expected hindrance.
- **Hindrance of water traffic.** During installation of the underwater cable, vessels navigating the Commewijne River may be temporarily hindered. This impact may be minimized by warning area residents ahead of time of project related activities in/along the Commewijne River, specifying dates, duration, type of activities and expected hindrance. Known stakeholders should be notified in writing. In addition, EBS must place public announcements in local newspapers and on the radio, for river users that are not reached by above mentioned communication methods.

The minor impacts can be effectively mitigated by implementation of recommended measures. Finally, positive impacts were identified including improvement of energy supply and temporary employment opportunities. As noted in the ESIA study, the consultant strongly advises considering project alternatives that could have the same positive benefits but additionally are technically, financially and environmentally more sustainable.
Impacts have been described and rated in the ESIA study, and associated mitigation measures have been identified. No more extensive mitigation plans were developed for these impacts. For further detail, see ESIA impact rating and mitigation section.

2.3 MITIGATION PLANS FOR POTENTIAL MODERATE NEGATIVE SOCIAL IMPACTS

<table>
<tr><td colspan="5">Mitigation Measure/Plan 1. Protect Cultural Heritage Sites</td><td>Version 1: 28/05/2021</td></tr>
<tr><td colspan="2">Risk / Impact to be addressed:</td><td colspan="4">Potential disturbance of archaeological sites and other sites of cultural relevance</td></tr>
<tr><td colspan="6">Summary of Current Situation:
Given the history of the ROC, it is possible that pre-Columbian or more recent archaeological artifacts are encountered during excavation activities. These chances are small because activities largely take place at already disturbed areas. Also, pre-Columbian cultures tended to live on shell mounts, which are not present in the target area.

Mitigation measures to minimize and compensate impact:
• In the case of encounter of archaeological artifacts, stop work immediately and follow chance-find procedures as outlined in the SIA
• Discuss planned location of utility poles with local area inhabitants prior to placement</td></tr>
<tr><td rowspan="4">Stage of Project to which measure applies</td><td>Preconstruction</td><td>X</td><td rowspan="4">Estimated cost(s):</td><td colspan="2" rowspan="4">In Preconstruction phase:
Cost of Community Relations staff member of EBS.
Construction phase:
In the case of chance-find, archaeologist to perform necessary procedures.</td></tr>
<tr><td>Construction</td><td>X</td></tr>
<tr><td>Operation</td><td></td></tr>
<tr><td>Closure</td><td></td></tr>
<tr><td colspan="6">Applicable Requirements and Standards:
▪ IDB guidelines on chance finds, as indicated in IDB Operational policy (OP) 7.03.
▪ Chance find procedure in Appendix D
▪ Government of Suriname (GoS) Monuments Act (1963, revised 2002).
▪ Draft national guidelines of the Directorate of Culture of the Ministry of Education, Science and Culture (MinOWC) for immoveable archaeological resources found during the course of the project.</td></tr>
<tr><td colspan="2">Indicators to measure success:
No complaints about disturbance of cultural heritage sites filed to EBS/IDB.</td><td colspan="4">Performance goals for Indicators:
• Local stakeholders do not experience damage to sites and artifacts in the places where they live and work.
• If archeological artifacts have been encountered, an archaeologist has been hired to guide further process.</td></tr>
<tr><td colspan="2">Responsibility for implementation of measure:</td><td colspan="4">EBS Community Relations staff: Communicate with local area inhabitants of the ROC about exact location of known heritage sites.

EBS Project team: Inform contractor about chance find procedures to be followed.

Contractor: Initiate chance find procedures upon unanticipated discovery of material remains of archaeological or historical significance.</td></tr>
<tr><td colspan="2">Frequency of inspection/ compliance verification:</td><td colspan="4">Reporting to IDB.</td></tr>
<tr><td colspan="2">Additional Information / Guidance:</td><td colspan="4">No known material remains of archaeological or historical significance have been recorded in the locations where earth movement activities will take place.</td></tr>
</table>

2.4 AWARENESS

Awareness sessions covering all matters regarding prevention, mitigation and monitoring measures, shall be run for all personnel on site. The objectives of the ESMP and the specific provisions of the ESMP shall be known to all personnel involved in construction activities prior to commencement of the projects.

Awareness must cover the specific community relations management requirements as set out in the ESMP, but must also ensure that all on-site personnel are aware of and familiar with all the relevant requirements. A copy of the ESMP shall be available on site to ensure that all the on-site personnel as well as suppliers and or visitors are familiar with and understand the specifications contained in the ESMP.

The Contractor is responsible for the awareness of, among others, appropriate behavior and gender sensitivity, of their staff. Toolbox meetings shall be held covering topics as provided in this SMP. Pre-job discussions shall be held prior to the commencement of activities.

2.5 STAKEHOLDER ENGAGEMENT

2.5.1 PURPOSE

Community or stakeholder engagement is about building and maintaining constructive relationships over time. It is an ongoing process between the project owner and its stakeholders that extends throughout the life of the project and encompasses a range of activities and approaches, from information sharing and consultation, to participation, negotiation, and partnerships. The nature and frequency of community engagement should reflect the level of project risks and impacts.

To ensure that there is a consistent and coordinated approach to the stakeholders of the project it is necessary to have appropriate processes for disclosure and communication in place. This section presents the ways to inform all relevant area inhabitants and other persons and businesses with an interest in the target areas about the project.

The purpose of community engagement is to help outline how to obtain a better understanding of the public's interest and perspective regarding the project activities in the project area. It also helps people within the community feel involved in and be heard about the project.

Two way communications can be achieved through:

- Keeping the communities informed about project activities and issues that affect, or are important to the communities.
- Making use of a grievance mechanism to listen to issues that affect, or are important to the community. It needs to be ensured that the local communities are aware of this grievance mechanism and how to utilize it. The complaints registry and investigation procedure will be used to ensure that all grievances are adequately addressed.
- Involve all relevant authorities during planning, construction, operation and decommissioning, including district-level authorities and (local) representatives of relevant government agencies.

Meaningful community engagement usually results in minimization of vagueness, conflict and delays, and the establishment of relationships in the local community that can benefit current and future projects. It can limit the number of surprises that occur during a project because all parties share information openly and consistently.

2.5.2 STAKEHOLDERS and PAPs

Stakeholders can be defined as those people and organizations who may affect, are affected by, or perceive themselves to be affected by, a decision or activity. Also, persons, organizations and institutions that have an interest in the specific field that will be dealt with, can be seen as a stakeholder. The ESIA for the current project has identified the following stakeholders:

- National Government: Ministry of Natural Resources (incl. EBS), Ministry of Regional Development and Sports (ROS), National Institute for Environment and Development in Suriname (Nationaal Instituut voor Milieu en Ontwikkeling in Suriname).
- District Government of Commewijne.
- Plantation owners/land owners
- Local residents: people living in project area.
- Entrepreneurs: representatives of tourism resorts, agricultural projects, and other local businesses.
- Management and workers of state citrus farm Alliance
- Users of the Commewijne River for transportation.

Project Affected Persons (PAPs) include persons or households affected by direct economic and social impacts caused by:
a. The involuntary taking of land resulting in
(i) Relocation or loss of shelter;
(ii) Loss of assets or access to assets; or
(iii) Loss of income sources or means of livelihood, whether or not the affected persons must move to another location;
b. Involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

In the present project, involuntary taking of land and involuntary restriction to land are not foreseen. In the context of this project, it is possibly that a small number of electricity poles will be placed on land from third party rights holders such as plantation owners. Consultations suggest that none of the land owners object to such activities. Standard EBS procedures, as described in the ESIA study, will be followed in cases where land of private land owners must be used.

2.5.3 DISCLOSURE OF INFORMATION ABOUT PROJECT ACTIVITIES

The disclosure of information sets out the policy and measures regarding the way project information will be made available to the public.

The general public should be made aware of the project activities and be able to find information about it, if desired. Disclosure activities could include:

- Leave a printed copy of the ESIA report, with a non-technical summary in Dutch, at the office of the District Commissioner of Commewijne, and with local Government offices in Kroonenburg and Johanna & Margaretha (*Bestuursopzichters, BO's*), and at the CBB office in Alliance.
- Publish a link of the digital copy of the ESIA report, with a non-technical summary in Dutch, on the BIC Facebook page of the Commewijne district and on the NIMOS website.
- Publish press releases in the national newspapers, for example for waterway users.
- Broadcast project information through media (local radio and TV stations)

- Place a billboard at strategic locations at the boat landings with the following project information:
  1. Description of the project activities.
  2. Locations of activities.
  3. Dates of activities.
  4. Contact information of the Community Relations department and the responsible CR officer for this project.
- Direct communication, written or oral, with specific stakeholders.
- Stakeholders must be timely informed about any changes in the activities schedule for the different phases of the project.

Table 1: Disclosure of information about the project to different stakeholders

Who?	How?	When?	Advised specific activities?
Government	Direct approach of stakeholders (e-mail and meeting).	One month in advance One week in advance	• Inform the District-Commissioner and his staff about the schedule of activities with exact dates, time and locations and discuss the proposed activities. • Make sure that local authorities such as the District Secretary, the Government Supervisors (*Bestuursopzichters*), District Council (DR) and Resort Council (RR) members are informed about the activities of the projects, their dates, time and locations, so that they can respond to any questions from citizens. Make sure they have contact information of the Community Relations department of the EBS or responsible CR Officer or representative of EBS.
Local residents	Internet / Social media CR Department Direct approach of stakeholders (e-mail and meeting). Personal contact or through the local authorities Media (radio, newspaper, TV) Posters/ Pamphlets Billboard General	One month in advance	• Place an up-to-date schedule of project activities on the BIC Facebook page. • Inform all stakeholders via social media (with a link on posters/pamphlets/newspaper/working-schedules). • Distribute information and schedules directly to affected stakeholders via internet. It should, however, be realized that not all stakeholders have access to internet. • Inform local residents during stakeholder meetings about the schedule of activities with exact dates, time and locations and discuss the proposed activities. Use story boards when appropriate and discuss most appropriate language of meeting with audience. • Provide relevant stakeholders, including land owners, with a name and contact information of the CR Officer or responsible representative of EBS who should be contacted in the case of questions, concerns or complaints. • Discuss new locations of electricity poles with land owners and plantation managers prior to placement. • The working schedule should be made available for the local stakeholders through the District-Commissioner, the Government Supervisors (*Bestuursopzichters*) and District Council (DR) and Resort Council (RR) whatever is most appropriate. • Inform local stakeholders about the complaints procedure and emphasize the commitment to address grievances and good neighborly relations. • Publish the working schedule in national newspapers and through local radio and TV channels. It should be made clear when (date and time) and where the activities will take place. • Place posters/pamphlets with operation schedules at the local BO offices. • Place a billboard at the construction site with general project information, project dates and contact information.

Entrepreneurs active in the project areas	Direct approach of stakeholders (by e-mail, phone, or in-person meetings). Media Billboard	One month in advance Two weeks in advance	• Inform the representatives during stakeholder meetings about the schedule of activities with exact dates, time and locations and discuss the proposed activities, e.g. through the North Commewijne cluster. • Make sure representatives are informed about the activities of the projects, their dates, time and locations, so that they can respond to any questions from citizens. Make sure they have contact information of CR Officer or responsible representative of EBS. • Use national and local media (newspapers, TV, radio, social media) to inform stakeholders about the timeline and location of activities. • Place a billboard at the construction site with general project information, project dates and contact information.

2.5.4 GENERAL COMMUNICATION MECHANISMS

For the execution of the project, the following general communication mechanisms should be in place:

1. **Appoint a Community Relations (CR) officer:** The EBS community relations officer should be a person who can nurture meaningful relationships with stakeholders and who is easy to approach. The name and phone number of this person should appear on all written communication (e.g. pamphlets, billboard). The community relations officer must be able to get assistance from a legal specialist when necessary.

2. **Grievance redress mechanism:** In line with IFC Performance Standard 1, EBS is advised to follow a grievance mechanism to receive and facilitate resolution of affected communities' concerns and grievances about the client's environmental and social performance. The grievance mechanism should be consistent with IDB policies and requirements and serve as an integral part of effective social performance. It aims to be accessible to all stakeholders, including the poor and the vulnerable, so that the issues raised are resolved effectively and expeditiously. Resolution principles that form the basis of the grievance mechanism are: proportionality, cultural appropriateness, accessibility, transparency and accountability. The processes of the grievance mechanism should include:
   - Receive and register comments
   - Review and investigate complaints and grievances
   - Develop resolution options
   - Respond to grievance and agree on resolution
   - Monitor implementation of resolution
   - Finish tracking as closed out
   - Evaluate lessons learned

   Affected individuals and communities, as well as other stakeholders, should have the right to protest against project activities. Such protests must be filed within a 30-day calendar period from receipt of notification of the project activities.

   Face-to-face meetings, telephone conversations and messaging, and e-mail should be made available for raising issues, concerns and grievances. Issues, concerns and grievances may be made in the language the person is most comfortable with. The processes identified should be tracked from acknowledgement, investigation and verification, to remedial action. Grievances will be sorted, categorized by risk level (related to delay of Project activities or increased budget needs), and logged. Based on the grievance topic and its risk categorization, EBS should identify an appropriate team of one to three people to undertake an investigation.

   After investigation and agreement on the action plan, remedial activities should be monitored and evaluated. Feedback on the investigation results, action plan, and results of remedial activities should be provided to the complainant.

   If no solution identified by the Project is acceptable to the complainant, the Project will organize a consultation committee. The committee should result in a solution acceptable to all, and identify responsibilities and an action plan. The Project should begin implementation of the agreed redress solution and convey the outcome to the IDB within seven working days.

If the complainant is still dissatisfied, the Project will invoke a legal resolution process based on the Suriname legal framework described above, complemented by the IDB guidelines. Where Suriname legislation and IDB safeguard guidelines are in disagreement, the more stringent one will prevail. The use of the resolution initiates a negotiation process.

The EBS will identify and describe any grievance voiced by Project Affected Persons (PAPs), as well as details on investigation, remedial actions and results to the IDB in periodic progress reporting.

3. **Compensation mechanism:** Any proven damage should be compensated and a mechanism should be developed in order to be prepared in case claims would be made.

2.6 EMERGENCY RESPONSE PLAN

An emergency response plan on site requires efficient and effective action to contain and remediate damage. If contractors will be hired they will be required to submit an emergency response plan to cover any emergencies arising during this project and shall ensure that essential emergency response equipment and materials will be available on-site. All on-site personnel must be aware of the Emergency Response Plan and their responsibilities, and are adequately trained therein. Where needed, the local fire department and police will be contacted.

3 MONITORING

This section provides a description of the methods that will be used to monitor performance against ESMP commitments. Monitoring the performance of on-site personnel against the commitments of the ESMP is essential. Monitoring should be done on a daily, weekly and monthly basis.

3.1 OBJECTIVES

The overall objective of monitoring is to make an evaluation of the process to:

- Ensure that adverse project impacts are effectively and efficiently mitigated, as set out in mitigation plans.
- Collect data for accountability to key stakeholders. These data will also serve as supporting material in case of grievances or concerns expressed by stakeholders. They will allow the EBS to show Project stakeholders how and when mitigation measures have been implemented, and with what results.
- Enhance sustainability of the Project by early detection of conditions that necessitate additional mitigation measures, or unanticipated issues that jeopardize planned mitigation measures.
- Gather the views and feedback of beneficiaries and other stakeholders on Project impacts and mitigation measures at different times before, during and after the Project.
- Improve service delivery, planning and allocating resources.

3.2 MONITORING

EBS will ensure continuous documentation of the efficiency, effectiveness, impact and sustainability of mitigation measures. The data collected in the context of the ESIA study serves as the baseline against which change will be measured. Indicators for monitoring (as seen in the following tables) will cover process, outputs and impacts.

Table 2: Indicators for Monitoring of Social Impacts

Monitoring Indicators	Basis for Indicators
Budget and timeframe	Have stakeholders been informed sufficiently both personally, and through other media such as public meetings, flyers, or social media?
Notes of meetings with land owners	Have the specific guidelines to minimize impacts been followed?
Consultation, grievance and special Issues	Has consultation taken place as scheduled? Has any stakeholder used the grievance redress procedures? If so, what was the grievance and what were the outcomes? Have conflicts been resolved?

3.3 REPORTING

The frequency and nature of reporting of environmental management performance will depend upon the nature of the activity and aspect that is being managed. Reporting will take several forms. The table below gives an overview of regular reports and reporting lines for the Contractor:

Table 3: Regular reports and report lines

Report Name	Description	Frequency	Responsibility of	Receiver
Method statement/ Planning of works	Method statement	One week before commencement	Contractor	EBS
Weekly report of safety talks	Toolbox sheets or pre job discussions	Weekly	Contractor	EBS
Weekly HSE inspection report	Compliance with ESIA	Weekly	Contractor	EBS
CR inspection report	Compliance with ESIA	As often as required	Contractor	EBS
Incidents/Accidents/ Near Miss	Report type and consequences for loss of days	Within 24 hours	Contractor	EBS
Monthly progress reports including project progress, HSE and CR aspects, waste log reports	Reports on monthly progress of the project covering several aspects Compliance with ESIA and SMP	Monthly	Contractor	EBS
Completion Inspection report	Report on completion of construction	At the end of the construction phase	Contractor	EBS

3.4 FEEDBACK

Feedback on performance will be communicated to the appropriate parties concerned. Any substandard performance will trigger a process that notifies the responsible party of the nature of the issue and indicates the actions that are required to rectify the situation. This will be followed up by further inspection and/or monitoring to ensure that the sub-standard performance has been corrected.

Appendices

Appendix A Environmental & Social Specifications

Table 4: Environmental Specification Table during the Construction Phase

Component	Impact Assessment	Mitigation Measures (Proposed or recommended)	Responsibility	Monitoring & Performance Evaluation		Compliance reporting
				Performance Indicators	Monitoring Methods	
Visual and Aesthetics	Transportation and handling of materials: storage Improper waste management and poor material storage result in untidy environment around project sites	Have proper material storage and have waste management in place; monitor compliance	Contractor/EBS	Number of registered complaints	Visual observations, records	Complete weekly ESMP checklist
Air quality	Construction traffic and equipment at project site, and other project traffic: exhaust gasses and dust from traffic.	Proper maintenance of vehicles and equipment	Contractor/EBS	Visual inspections, visibility of exhaust gasses and dust coming off the project site	Visual observations, records	Complete weekly ESMP checklist/ Complaint report
	Construction activities at project sites: dust from soil works and handling of materials.	Prevent dust emissions by covering and/or wetting of dust generating materials during construction or by placing dust screens.				
Noise	Increased noise levels at project sites and along project transport routes: project traffic and construction activities on-site.	Proper maintenance of vehicles and equipment	Contractor/EBS	Number of registered complaints	Records and statistics	Complaint Report
Water quality and hydrology	Increased turbidity of road side ditches and canals due to erosion of road sides during works	Prevent soil piling to the minimum. Compact loose surfaces as soon as possible. Prevent blockage of water ways while constructing clay mounds for re-routing distribution line.	Contractor/EBS	Change of water color and appearance	Visual inspection	Complete ESMP checklist

Component	Impact Assessment	Mitigation Measures (Proposed or recommended)	Responsibility	Monitoring & Performance Evaluation		Compliance reporting
				Performance Indicators	Monitoring Methods	
	Increased turbidity of the Commewijne River as a result of cable placement at the bottom	No mitigation required, because natural high turbidity in the Commewijne River				
	Risk of flooding due construction works	In planning placement of electricity pylons, restoration/repair of nearby physical infrastructure (dams, trail, and sluices) should be considered to prevent damage to the energy infrastructure and guarantee accessibility Prevent blockage of water ways while constructing clay mounds. Include maintenance of clay mounds in Vegetation maintenance plan; which consist of general and major maintenance periods. Regular inspections and make budget reservations for proper maintenance	Contractor/EBS	Number of non-compliance cases	Visual field inspection	Inspection Report
Vegetation	Habitat destruction due to vegetation clearance for distribution lines	Limit vegetation clearing to the minimum.	Contractor/EBS	Actual clearance not exceeding planned	Field inspections	Complete ESMP checklist/

Component	Impact Assessment	Mitigation Measures (Proposed or recommended)	Responsibility	Monitoring & Performance Evaluation		Compliance reporting
				Performance Indicators	Monitoring Methods	
	Habitat destruction due to vegetation clearance for riser pole locations			clearance		Progress Reports
	Habitat destruction due to vegetation clearance for Right-of-Way re-routing (ROC: at Mon Souci and Hecht en Sterk over resp. 600 and 1200 meters through secondary marsh vegetation)	Do not clear riverside mangrove forest to the south of the bicycle path.	Contractor/EBS	Visual inspections	Visual observations	
Flora and fauna	Loss of endangered, threatened or vulnerable plant or animal species due to habitat loss or disturbance during project activities	None.				

Table 5: Environmental Specification Table during the Operation Phase

Component	Impact Assessment	Mitigation Measures (Proposed or recommended)	Responsibility	Monitoring & Performance Evaluation		Compliance reporting
				Performance Indicators	Monitoring Methods	
Visual and Aesthetics	Physical presence of distribution lines	None				
	Improper waste management results in dirty environment around project sites	Have waste management in place and monitor compliance	Contractor/EBS	Number of registered complaints	Visual observations, records	Complete weekly ESMP checklist
Flora and fauna	Interference by distribution lines with bird flight paths and increased potential for bird collisions	None	Contractor/EBS	Visual inspections	Visual observations	Complete weekly ESMP checklist
	Animal electrocutions by distribution lines	Prevent pole climbing by placing an animal barrier on the poles and by proper				

		vegetation maintenance (no climbing plants on poles; no branches near lines).				

Table 6: Social Specification Table of the EBS energy infrastructure projects

Component	Impact Assessment	Mitigation Measures (Proposed or recommended)	Responsibility	Monitoring & Performance Evaluation		Compliance reporting
				Performance Indicators	Monitoring Methods	
General						
Improved energy supply	Redundancy in power supply; fewer power outages; more trust of local stakeholders in energy provision.	Anticipate new requests for connections to the grid.	EBS	Number of registered complaints	Records and statistics	Complaint Report
		Implement vegetation maintenance plan, including maintenance, for distribution lines in the re-routing transect, and for the distribution line along the bike path for the period that this is not yet rehabilitated.	EBS	Number of non-compliance cases	Visual field inspection	Inspection Report
		Conduct inspections for those line sections that will be maintained by cooperating institutions in order to check whether maintenance is in compliance with the EBS requirements.	EBS	Number of non-compliance cases	Visual field inspection	Inspection Report
Livelihood	Project provides temporary employment opportunities during construction and operation; excavator and tractor operators; boat transportation, maintenance.	As much as possible: hire local field hands for temporary jobs. Promote local procurement of food and lodging.	EBS	Percentage of local people employed	Keep a register of the local employees (attendance list)	Weekly Report
Construction noise and traffic	Piling and other construction activity may be a hindrance to local area inhabitants. Also,	Warn area residents ahead of time of construction activities, specifying dates, and duration, type of	EBS	Number of registered complaints	Records and statistics of CR	Monthly Progress Report

	the main pathway and dams may be temporary blocked.	activities and expected hindrance and alternate routes.				
Hindrance of water traffic	During placement of underwater cable, possible hindrance of water traffic or collisions.	Timely communication of water users through media messages (radio, newspaper) and billboards on alternate routes/landings (landing locations), indicating dates, duration and locations.	EBS	Number of registered complaints	Records and statistics of CR	Monthly Progress Report
Tourism development	Rehabilitation of path beneath power lines, incl. repair of dams and bridges, can support rehabilitation of bicycle path related to tourism project.	Communication with North Commewijne cluster and specifically Bakkie tourism project about path.	EBS			
Cultural Heritage	Disturbance of archeological and other cultural heritage sites	Discuss location of cultural sites with plantation population. Follow international best practice as described in the ESIA for this project.	Contractor/EBS	Visual inspections	International Best Practices procedures/ Visual observations	Complete weekly ESMP checklist
Land tenure	A few selected utility poles may have to be placed on land that has been titled to someone else.	Use standard EBS procedures to deal with land title holders on whose lands utility poles may need to be placed (have procedures/landowner agreements in place)	EBS	Number of registered complaints	Registration of landowners	Signed agreement

Appendix B Weekly ESMP Checklist

Weekly ESMP Checklist

Location:
Date:
Inspection by:
Reviewed by:

Nature of environmental Control required	**Issue**	**Corrective Action mentioned in the following document:** **- Local laws** **- ESMP** **- Internal Non-Conformity (NCPN)** **- Other**	**Specification/Comments**
1. Corporate wide involvement All personnel and staff are aware of the ESMP.			
2. Social Cooperation All involved parties have been informed about the activities. Required Permits and No objections are in place. Grievance Mechanism is in place.			
3. Safety Method statements have been approved. Safety plan is in place including traffic management. Drivers are trained. Equipment and vehicles are in optimum conditions.			

Toolbox talks/Pre-job talks have been held.			
4. Waste Management Waste is being collected in proper waste bins. No waste littering on-site. Waste records are being kept including waste type, volume and disposed location.			
5. Air Quality Control All equipment and vehicles are properly maintained. Speed limits have been implemented to minimize dust			
6. Emission Control All equipment and vehicles are properly maintained.			
7. Soil Protection Loading limits have been implemented to the least stable unpaved road section.			
8. Erosion Prevention Heavy equipment on unstable soil has been limited. Excavation works have been limited in wet conditions			
9. Noise Control Large and noisy transport have been limited to working hours. Conductors and Insulators are properly maintained.			
10. Traffic Control Introduction of alternative routes for traffic especially			

during peak hours and certain construction activities.			
11. Environmental Emergency Response Planning An emergency response plan and team are in place			
12. Vegetation maintenance ROW of distribution line clear of vegetation.			

Appendix C CR Checklist

Community Engagement Checklist

Note: Where mitigation measure is not relevant for process being inspected please place N/A.

Mitigation Measure	Compliance Yes/no	Remarks
Preparation and planning stage		
A community liaison officer been appointed and His/her name is published for stakeholders.		Name:
A printed copy of the final ESIA report is available for the public		
Billboard with general project information have been placed.		Location(s):
General project information has been broadcasted by the local radio station (attach information sheet provided to station).		Date:
The following authorities are informed about the project schedule, working locations and/or specific activities:		Date and information medium:
• NIMOS		
• Districts Commissioner.		
• Traditional Authorities		
• Local police.		
• Local fire brigade.		
Issues related to specific locations have been discussed with:		Date and outcome:
• Local stakeholders		
Compensation measures are in place in case of damage to public or private property.		
Efforts have been made to promote local employment (explain).		
Efforts have been made to promote local entrepreneurship (explain).		
Construction and Operation phase - monthly or more often as required		
Specific information about large transports has been broadcasted by national radio and/or TV.		Date of transport:
Any change in program or activities has been communicated with the DC, NIMOS and other involved specific stakeholders.		Specify changes:
On-site personnel are aware of community-related ESMP issues.		
Complaints on community issues related to the project were received (if "yes" present brief description).		
Complaints were received with regard to the execution of the project and about the behavior of personnel (if "yes" present brief description).		

Complaints registered with regard to physical disturbance.		
Feedback was given to people who filed complaints (if "yes" present brief description).		
Compliments were received (if yes, specify).		

Completed by: ……

Function:

Date: …….

Sign: ……..

Approved by (please check off which is relevant)

	Function	**Signature**
1		
2		

CR Representative

Received and checked by: ……

Date: …….

Sign: ……..

Appendix D Chance Find Procedure

(Draft)

This document describes a generic Chance Find Plan aligned with international best practice to protect cultural heritage that is inadvertently discovered during construction activities. The Chance Find Plan includes a Cultural Heritage Monitoring Program, Chance Find Procedure, Cultural Heritage Training Program, and Site Protection Program, as detailed below.

The Chance Find Procedure requires further development to align with international standards, specifically IFC Performance Standard 8 (Cultural Heritage). Within EBS, the EHS Specialist is responsible for developing and implementing the Chance Find Procedure.

Baseline Conditions

Archaeological research in Suriname is predominantly focused on the pre-Columbian period. Archaeology of the colonial period is mainly practiced by amateur archaeologists. Archaeological resources at former plantation lands consist mostly of clay pipes, bottles, coins, brick foundations, and brick water cellars.

Within Commewijne ROC, the only known pre-Columbian archaeological resources are at the Warapa creek, east of Bakkie and Alliance. Given that the project area does not include shell mounts, which are known locations of pre-Columbian Indigenous settlements, it is not likely that the Project will encounter archaeological resources that can be linked to the first inhabitants of Suriname.

Regulatory Background

Suriname Laws and Regulations

The first law in Suriname protecting cultural heritage was the Historic Monuments Act of 1963 (*Wet Historische Monumenten* 1963, G.B. 1963 No. 23). The implementation of the Historic Monuments Act was assigned to the Department of Education (now the Ministry of Education, Science, and Culture, or MESC), which was also responsible for cultural policy. The Monuments Committee (*Commissie Monumentenzorg*) was formed to implement the act. The Historic Monuments Act was replaced by the Monuments Act of 2002 (Monumentenwet 2002, S.B. 2002 No. 72), the present legislation. The Monuments Act defines a monument to include all immovable objects or parts thereof exceeding fifty years of age that have common interest due to esthetic and artistic values or scientific, archeological, anthropological, historical, or architectural significance for Suriname. These monuments are inscribed in the public Monuments Register.

International Standards

The principal international standard for the protection of cultural heritage is Performance Standard (PS) 8 (Cultural Heritage) of the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012). The objective of PS 8 is to "protect cultural heritage from the adverse impacts of project activities and support its preservation…[and] promote the equitable sharing of benefits from the use of cultural heritage." PS 8 defines cultural heritage as:

i. tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values;
ii. unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and
iii. certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.

PS 8 differentiates between replicable, non-replicable, and critical cultural heritage, which are defined as follows:

- Replicable Cultural Heritage: Defined as "tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures.

Archaeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures."

- Non-replicable Cultural Heritage: Includes "(i) cultural heritage [that] is unique or relatively unique for the period it represents; or (ii) cultural heritage [that] is unique or relatively unique in linking several periods in the same site."
- Critical Cultural Heritage: Includes "(i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; or (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation."

The preferred mitigation measure for all cultural heritage impacts is avoidance. When this is not possible, PS 8 provides the following mitigation hierarchy (from preferred to least preferred) for replicable cultural heritage:

- Minimize adverse effects and implement *in situ* restoration measures;
- Restore the functionality of the cultural heritage in a different location;
- Permanent removal of historical and archaeological artifacts following national laws and internationally recognized practices by competent professionals; and
- Compensation for the loss of cultural heritage.

The removal of non-replicable cultural heritage should only take place if there is no technically or financially feasible alternative and the benefits of the project outweigh any heritage losses. The removal of critical cultural heritage should only take place in "exceptional circumstances" and after extensive consultation with affected communities and other stakeholders.
PS 8 also requires the development and implementation of chance find procedures. Chance finds are defined as "tangible cultural heritage encountered unexpectedly during project construction or operation," and a Chance Find Procedure is defined as "a project-specific procedure that outlines the actions to be taken if previously unknown cultural heritage is encountered." The requirement is a recognition of the fact that no survey, regardless of methodology, is sufficient to ensure that all archaeological resources are identified in a project area, and that there is therefore always the potential for the inadvertent discovery of cultural heritage during ground-disturbing construction or operational activities.

According to the IFC Guidance Note 8, the Chance Find Procedure should "include record keeping and expert verification procedures, chain of custody instructions for movable finds, and clear criteria for potential temporary work stoppages that could be required for rapid disposition of issues related to the finds. It is important that this procedure outlines the roles and responsibilities and the response times required from both project staff, and any relevant heritage authority, as well as any agreed consultation procedures. The procedure should be incorporated into the Management Program and implemented through the client's Environmental and Social Management System."

Cultural Heritage Monitoring Program

The Program will implement a Cultural Heritage Monitoring Program for all construction activities in consultation with the MESC and other cultural heritage stakeholders, as appropriate. The purpose of this monitoring is to:

- Identify, record, and protect cultural heritage that has not been previously identified (i.e., chance finds); and
- Protect cultural heritage identified during previous cultural heritage investigations (i.e., known resources).

The program will utilize "passive" cultural heritage construction monitoring. This means that all Program and contractor personnel will be responsible for cultural heritage monitoring during their daily activities, rather than having a Cultural Heritage Specialist (CHS) monitor all construction activities. Passive cultural heritage monitoring will be conducted by all Program and contractor staff during their daily activities. Relevant Program and contractor staff will receive training in the identification of potential chance finds and the Chance Find Procedure described below, and will be responsible for reporting any potential chance finds to the EHS Specialist of the PIU (Project Implementation Unit). The EHS Specialist will then report the potential chance finds to a CHS to be retained by the Program.

Chance Find Procedure

The following types of cultural heritage are the most likely to be encountered during construction:

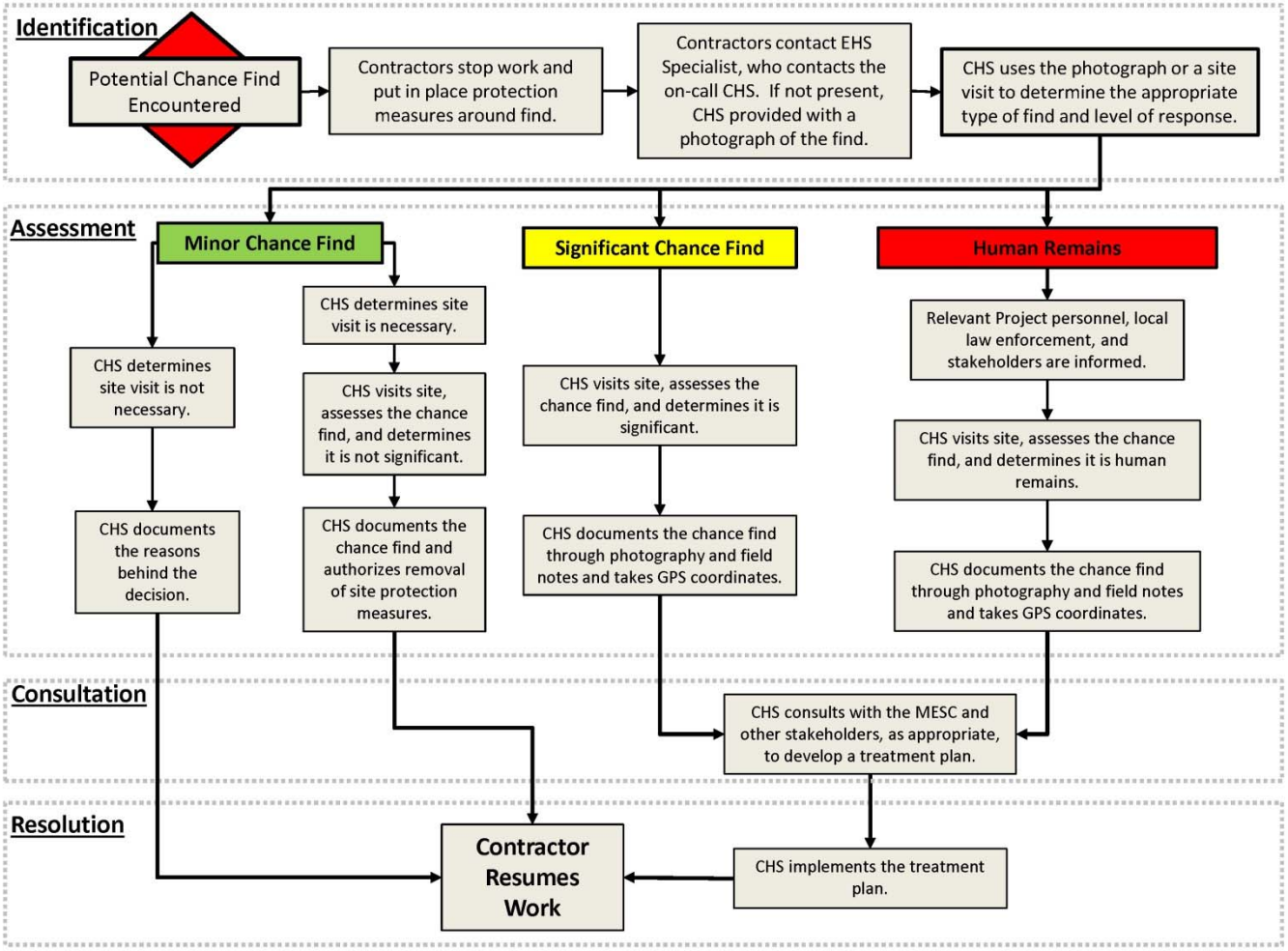
- Pre-Columbian archaeological features (e.g., habitations, hearths);
- Pre-Columbian artifacts (e.g., ceramic sherds);
- Historic archaeological features (e.g., brick wells and foundations);
- Historic artifacts (e.g., clay pipes, bottle fragments, and coins).

The Chance Find Procedure will use a multi-tiered approach for identifying, assessing, and resolving potential chance finds. The purpose of this approach is to empower an on-call CHS to resolve minor chance finds without necessitating consultations with the MESC and minimize construction delays by allowing for the quick resolution of non-significant finds by a CHS in the field. The defining characteristics of each chance find tier and the processes for assessing them and determining if consultation is required will be developed in consultation with the MESC and other cultural heritage stakeholders, as appropriate. A preliminary three-tiered chance finds hierarchy is presented in Table F-1. All potential chance finds identified by Project personnel will be reported to a CHS who will determine if the potential find is a chance find and assign it to a chance finds tier. Figure F-1 provides a flowchart of the Chance Find Procedure.

Table F-1: Three-tiered Chance Find Hierarchy.

Chance Find Type	Characteristics	Evaluation Process
Minor Chance Finds	Modern features or objects. Isolated historic or prehistoric artifacts that are out of context or lack research potential or value.	Construction work will stop in the area of the find. The potential find will be reported to the EHS Specialist of the PIU within 24 hours, who will then notify the on-call CHS. The CHS will then examine the potential find via photographs or a site visit. If the find is determined to represent a minor chance find, the find will be documented and collected/resolved in the field by the CHS without MESC consultation. Construction activities will then resume in the area.
Significant Chance Finds	Significant historic or prehistoric features or artifacts.	Construction work will stop in the area of the find. The potential find will be reported to the EHS Specialist of the PIU within 24 hours, who will then notify the on-call CHS. The CHS will then conduct a site visit to examine the potential find. If the find is determined to represent a significant chance find, the CHS will develop a treatment plan in consultation with the MESC. Construction works will resume in the area upon completion of the treatment plan.
Human Remains	Modern, historic, or prehistoric burials, isolated human remains, and/or associated features and/or artifacts (i.e., grave goods).	Construction work will stop in the area of the find. The potential find will be reported to the EHS Specialist of the PIU within 24 hours, who will then notify the on-call CHS. The CHS will then conduct a site visit to examine the potential find. If the find is determined to represent human remains and/or burial goods, the CHS will report the find to stakeholders, including local, regional, or national law enforcement agencies. The CHS will initiate consultation with the MESC and other stakeholders (e.g., potential descendent communities), as appropriate, to develop a treatment plan. Construction works will resume in the area upon completion of the treatment plan.

Figure F-1: Chance Find Procedure Flow Chart.



Artifacts collected in connection with chance finds should be minimized. Photos of artifacts with a scale included in the frame should be taken as soon as possible. Artifacts and associated notes and photographs taken by any Program personnel should be given to a CHS. Details of how artifacts should be collected and stored and what notes and photographs should be taken at the time of discovery will be provided in the Cultural Heritage Training. Artifacts found belong to the Suriname government, and a CHS will be responsible for giving them to the MESC.

The CHS and the EHS Specialist of the PIU will maintain records on chance finds and the implementation of treatment plans. These will include:

- Monthly reports summarizing reporting period activities, including chance finds identified, the results of any chance find assessments, internal and external communications and instructions, and supporting photographic documentation (or other reference materials as appropriate); and
- Any additional reports prepared to fulfil specific requirements of the MESC.

Cultural Heritage Training Program

Relevant Project personnel will receive training and demonstrate competency in the identification of chance finds and the Chance Find Procedure described above. This training will be incorporated into the overall induction process for Program and contractor personnel, and will include a quick reference handout. The EHS Specialist will maintain records of all Cultural Heritage Training provided to Program personnel.

All employees must be aware that it is illegal and forbidden to disturb or remove cultural heritage objects offsite for personal gain. To support the training process, the Program will develop training materials for use in the overall induction process

Site Protection Program

Known cultural heritage sites will be protected from Program-related damage. This includes sites identified in advance of construction activities and those found during construction (i.e., chance finds). Sites may be located in Program areas or adjacent to them. In some cases, it may be necessary to modify construction techniques to protect sites in work areas. Site information will be provided to Program personnel in written and verbal form in official transmittals, meetings, and tool box talks as appropriate to ensure that known cultural heritage sites are protected.