

Offshore Cape Three Points Environmental and Social Monitoring Report (May 2019)

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Date

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Project Number

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OFFSHORE CAPE THREE POINTS ENVIRONMENTAL AND SOCIAL MONITORING REPORT (MAY 2019)

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Project No. **1700002167**
Issue No. **1**
Date **29 July 2019**
Made by **C Halliwell and R Bisset**
Checked by
Approved by **C Halliwell**

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Appendix 5

PHOTOLOG

ACRONYMS AND ABBREVIATIONS

ACA	Additional Conservation Actions
AMR	Annual Monitoring Report
BAP	Biodiversity Action Plan
BMP	Biodiversity Management Plan
BOD ₅	Biological Oxygen Demand (measured over a 5-day period)
CHMP	Cultural Heritage Management Plan
CLO	Community Liaison Officer
COD	Chemical Oxygen Demand
DFI	Delta Flash Intervention (a security provider)
DAoI	Direct Area of Influence
EC	Energy Commission
E&S	Environmental and Social
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESL	ESL Consulting
EHS	Environmental, Health and Safety
EPA	Environmental Protection Agency
EPIC	Engineering Procurement Installation and Commissioning
ERP	Emergency Response Plan
ESHIA	Environmental, Social and Health Impact Assessment
FFI	Flora and Fauna International
FLO	Fisheries Liaison Officer
FMCC	Fisheries Management Coordination Committee
FPSO	Floating Production Storage and Offloading
GES	Gas Export Sealine
GMA	Ghana Maritime Authority
GNGC	Ghana National Gas Company
GNPC	Ghana National Petroleum Corporation
GWS	Ghana Wildlife Society
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HSE	Health, Safety and Environment
HSE and S	Health, Safety, Environment and Sustainability
IBA	Important Bird and Biodiversity Area
IESC	Independent Environmental and Social Consultant
IFC	International Finance Corporation
ITN	Insecticide Treated (Bed) Net
ITT	Invitation to Tender
KPI	Key Performance Indicator
LTE	Landfall Terminal End
LR	Livelihood Restoration
LRP	Livelihood Restoration Plan
LRWG	Livelihood Restoration Working Group
MIGA	Multilateral Investment Guarantee Agency
MMO	Marine Mammal Observer
MoU	Memorandum of Understanding
MS	Management System
NAG	Non-associated Gas
NO ₂	Nitrogen Dioxide
O&G	Oil and Gas

ACA	Additional Conservation Actions
OCTP	Offshore Cape Three Points
ORF	Onshore Receiving Facility
OHS	Occupational Health and Safety
OSRL WACAF	Oil Spill Response Limited West and Central Africa
PAC	Project-Affected Community
PAP	Project-Affected Person
PAC	Permanent Accommodation Camp
PC	Petroleum Commission
PLET	Pipeline End Terminal
PLONOR	Pose little or no risk
PM ₁₀	Particulate matter <10 microns in diameter
PPE	Personal Protective Equipment
PS	Performance Standard
PTW	Permit to Work
QMR	Quarterly Monitoring Report
RoW	Right of way
SEP	Stakeholder Engagement Plan
SHERPA	Safety Health Environment Radiological Protection Data Acquisition
SLC	Sustainability & Local Content
SMP	Security Management Plan
SO ₂	Sulphur Dioxide
STI	Sexually Transmitted Infection
TRMS	Takoradi Regulating and Metering Station
TTIP	Takoradi to Tema Interconnector Project
UKEF	UK Export Finance
Vitol	Vitol Exploration and Production Limited
Voluntary Principles	Voluntary Principles on Security and Human Rights
VUGL	Vitol Upstream Ghana Limited
WB	World Bank
WBC	Water Board Committee (of the potable water supply project)
WBG	World Bank Group
WMP	Waste Management Plan
WRCF	Western Region Coastal Foundation

EXECUTIVE SUMMARY

In May 2019, Ramboll UK Limited (previously Ramboll Environment and Health UK Limited), acting in the role of Independent Environmental and Social Consultant (IESC), undertook the fifth in a series of 6-monthly site visits to monitor the environmental and social (E&S) performance of the Offshore Cape Three Points (OCTP) project, Republic of Ghana (the 'Project'). The Project is operated by Eni Ghana Exploration and Production Ltd (Eni Ghana). Vitol Upstream Ghana Limited (VUGL), an affiliate of Vitol Exploration and Production Limited (Vitol), and Ghana National Petroleum Corporation (GNPC) are JV non-operating partners.

The overall role of the IESC is to monitor the Project's management of E&S matters, including the implementation of the Project Environmental and Social Action Plan (ESAP); the adequacy of Health, Safety, Environment and Sustainability Management Systems; and the implementation of a suite of E&S management plans intended to address applicable Project standards, notably the World Bank Group (WBG) Performance Standards¹.

The same two-person team that completed all previous monitoring visits was joined by representatives of the World Bank Group, acting as observers during the monitoring visit. Given the follow-up nature of the site visit the primary objectives were to:

1. Confirm closure of the issues identified during the previous visits;
2. Address any issues identified following review of the Eni Ghana's Quarterly Monitoring Reports²;
3. Visit the Onshore Receiving Facility (ORF) and associated construction activities;
4. Interview Eni Ghana's main contractors and environmental monitoring consultants;
5. Interview Eni Ghana's biodiversity monitoring consultants;
6. Monitor the ongoing implementation of Eni Ghana's E&S management plans including biodiversity programmes, such as its Turtle and Avian Biodiversity Action Plans (BAPs);
7. Follow-up on labour relations and, also, consider worker demobilisation progress by means of interviews with Eni Ghana staff;
8. Visit sites associated with implementing the LR Programme 'Support Services' component and, also, the potable water supply project (for Sanzule, Krisan and (old) Bakanta³) being implemented under the 'Quick Impact Projects' component of the Community Investment Strategy;
9. Interview members of the Livelihood Restoration Working Group (LRWG) and senior managers of TechnoServe regarding the LR Programme 'Support Services' and members of the Water Board Committee (WBC) with respect to the potable water supply project). In addition, informal discussions occurred with PAPs participating in the LR Programme 'Support Services' as/when encountered during the site visit to sites where income-generating activities were occurring;
10. Discuss fisheries-related issues with the Fisheries Management Coordination Committee (FMCC); and
11. Revisit compliance with the updated ESAP.

Regarding the first and second objectives, the IESC found that Eni Ghana had made good progress with the closure of the actions reported following the previous IESC monitoring trips. Also, the IESC was able to address most of the issues identified following review of the Eni Ghana's Q4, 2018 Quarterly

¹ WBG Performance Standards refer to IFC (January 2012), WB (July 2012) and MIGA (October 2013) Performance Standards

² The IESC issued its Monitoring report on the Project's Q4, 2018 Quarterly Monitoring Reports on 08 October 2019.

³ Eni Ghana documents have started to refer to (old) Bakanta. This is the DAoI village. There is a more recent settlement named 'Bakanta' nearby, but it is not a DAoI village. The term (old) Bakanta will be used in this report when referring to the DAoI village.

Monitoring Report with some of these were found to be closed. With respect to objectives 3 to 10, the IESC was able to visit all sites and attend all interviews and meetings as planned. Finally, regarding the 11th objective, the IESC found the Project to be compliant with the ESAP.

The IESC found that the Project is compliant with the requirements of the ESAP, necessary management plans have been prepared and disseminated and that HSE and social matters are well managed. Nevertheless, 19 findings were identified during the monitoring visit. Of these, 3 findings are considered to be of 'High' significance (two relate to the same issue: Project security); 5 are considered to be of 'Moderate' significance and the remainder to be of 'Minor' significance. Below, the findings of 'High' and 'Moderate' significance are presented with the issue/s followed by the recommendation/s.

The findings categorized as 'High' relate to:

1. Project Security (Security Management Plan) – There are two issues. Firstly, the Project Security Management Plan (SMP) requires substantial revision following the labour unrest in Q1 2018 and, also, in response to the IESC's finding that offshore security provisions, which have not changed since September 2018, have not been effective to date in preventing canoe incursions into the FPSO exclusion zone. It is understood by the IESC that Eni Ghana and the WBG are close to an agreement on a final SMP. Secondly, the Project wants to secure state-sponsored security back-up provision for the operational ORF. Currently, there is only an informal agreement/understanding between Eni Ghana and the local police regarding the role of the police in providing security. Such an agreement/understanding is not sufficient.

Thus, there are three recommendations:

- i) The Project SMP should be agreed with WBG and approved/signed off as soon as possible. The final SMP needs to include all pertinent international and O&G sector guidance on managing security and be aligned with other Eni Ghana plans that impinge on security-related issues (such as the Production phase Fisheries Management Plan and the Marine Traffic Management Plan); and
 - ii) An MoU to be reached, as soon as possible on the use of State actors (navy and/or army) in the protection of offshore and onshore assets and personnel (especially the operational ORF). This MoU should be based, to the extent practical, on international and O&G sector guidance, such as IFC's (2017) Good Practice Handbook entitled 'Use of Security Forces: Assessing and Managing Risks and Impacts: Guidance for the Private Sector in Emerging Markets'. Eni Ghana's efforts to reach agreement on a MOU should be clearly documented.
 - iii) An 'agreement' between the Project and the police should be formalized soon, perhaps via an MoU, to remove the uncertainty inherent in an informal 'agreement'.
2. Project Security: Fishing vessel incursions into exclusion zones (this is an identical finding with identical recommendations to that of the September 2018 monitoring visit). There are two recommendations:
 - i) Efforts to enforce exclusion zones must continue/new initiatives need to be sought. Eni Ghana should continue liaison with other O&G operators in the Ghanaian-controlled offshore marine space (and consider experience from other West African regions, and those beyond Africa) to identify effective practices that may be transferable to OCTP; and
 - ii) Continue efforts with Ghanaian authorities, such as GMA and GNPC, to expedite agreement on measures and mechanisms that can improve offshore security in both the short and long-term.
 3. Food Aid Termination and Livelihood Restoration (LR) Programme 'Support Services'– At time of food aid termination (April 2019⁴), about 20 % of PAPs had not, "...officially started to generate

⁴ The 'missing' September 2017 food aid was delivered in May 2019, However, the food aid programme ceased, formally, in April 2019.

*revenue...*⁵. It is recommended that Eni Ghana maintains a register of each individual PAP from the estimated 20%, who has not started to generate revenue, and record remedial actions taken with date, responsible entity/person, and results, to assist it to track success in restoring livelihood status to these PAPs, with emphasis on vulnerable PAPs.

The findings categorized as 'Moderate' relate to:

1. Livelihood Restoration (LR) Programme 'Support Services' – Certain sites selected for LR Programme Support Services options (such as agricultural crop production) have involved habitat loss and potential harm to the integrity of forested and swamp areas. It is recommended that Eni Ghana and TechnoServe work together to create a simple E&S screening procedure to guide site selection with allocation of responsibility to senior HSE staff members in terms of making the final decision and then signing off. Supervision of option implementation (including a monitoring procedure) should be part of the screening process.
2. Biodiversity: Shorebird Monitoring - Monthly shorebird monitoring reports indicate reduced number of birds but conclude no linkages between the decline in numbers and the Project. Eni Ghana should produce a report summarising all monthly data to date and providing an analysis of the findings taking into account of seasonal fluctuations and other variables that might be influencing bird numbers. The report, to be produced by Ghana Wildlife Society (GWS) and Flora and Fauna International (FFI), should provide robust interpretation of the results to support the conclusion that the Project has had no direct or indirect impact on the shorebirds.
3. Biodiversity: Additional conservation actions - The selection of additional conservation actions has not been made, but is underway, and will be presented in revised Avian and Sea Turtle BAPs. The additional conservation actions (ACAs) should complement the requirement for no net loss of wetland habitat and clearly presented in revised versions of the BAPs for WBG review.
4. Biodiversity: No Net Loss of natural habitats - The Identification and Assessment of Potential No Net Loss Options, scheduled to be completed by Q1 2019, has not been initiated. It is recommended that Eni Ghana initiate the prescribed programme as soon as possible and report the findings of its options study to the WBG.
5. Air Quality Monitoring: The location of ambient air quality sampling points for Production phase monitoring should be reviewed and revised as necessary based on operational emission sources, sensitive receptors and zones of maximum impact identified in predictive air quality studies.

The IESC also highlights that, pending preparation of a new QRA for the revised plant design/operating philosophy, the potential need to relocate community members living near the Tema RMS cannot be ruled out. In the event that relocation is required, Eni Ghana's responsibility and ability to influence any future relocation need to be clarified and agreed between Eni Ghana and the WBG. Relocation is considered unlikely and this potential issue has therefore been categorised as 'Minor' significance; however, if relocation were found to be necessary, the significance categorisation would increase.

The findings presented in this report should be incorporated within Eni Ghana's audit findings and closure process, with evidence of corrective actions provided via the Lenders' quarterly reporting process.

⁵ Eni Ghana (18 April 2109) Report of Validation Mission Report on Evaluation of Livelihood Restoration Plan (LRP) Implementation (page 15).

1. INTRODUCTION

Ramboll UK Limited ('Ramboll'), previously Ramboll Environment and Health UK Limited, was commissioned in January 2017 by Vitol Upstream Ghana Limited (VUGL) to undertake environmental and social monitoring of the Offshore Cape Three Points (OCTP) Project (the 'Project'), Republic of Ghana. The Project is operated by Eni Ghana Exploration and Production Ltd (Eni Ghana). VUGL, an affiliate of Vitol Exploration and Production Limited (Vitol), and Ghana National Petroleum Corporation (GNPC) are JV non-operating partners.

In fulfilling the role of Lenders' Independent Environmental and Social Consultant (IESC), Ramboll has a duty of care to a consortium of lenders (the 'Lenders') to the Project, including the International Finance Corporation⁶ (IFC), World Bank⁷ (International Development Association) and the Multilateral Investment Guarantee Agency⁸ (MIGA) which are all members of the World Bank Group (WBG) as well as UK Export Finance (UKEF).

This report provides the findings following the fifth of a series of independent monitoring visits in which the Project is assessed against agreed E&S management plans which in turn were developed to meet the applicable Project Standards, specifically, WBG Performance Standards and applicable WBG Environmental, Health and Safety (EHS) guidelines, thereby identifying any environmental and social risks associated with the Project's realisation.

The same two-person team that participated in all the previous monitoring visits undertook the fifth monitoring visit⁹. Given the follow-up nature of all previous visits the primary objectives of the fifth visit had a similar focus and were to:

- Confirm closure of the issues identified during previous visits;
- Address any issues identified following review of the Eni Ghana's Q4, 2018 and Q1, 2019 Quarterly Monitoring Reports;
- Visit the Onshore Receiving Facility (ORF) including the Gas Export Sealine (GES) shore crossing and associated construction activities;
- Interview Eni Ghana's main contractors and environmental monitoring consultants;
- Interview Eni Ghana's biodiversity monitoring consultants;
- Monitor the ongoing implementation of Eni Ghana's E&S management plans including biodiversity programmes, such as its Turtle and Avian Biodiversity Action Plans (BAPs);
- Follow-up on labour relations and, also, consider worker demobilisation progress by means of interviews with Eni Ghana staff;
- Visit sites associated with implementing the LR Programme 'Support Services' component and, also, the potable water supply project (for Sanzule, Krisan and (old) Bakanta¹⁰) being implemented under the 'Quick Impact Projects' (QIP) component of the Community Investment Strategy' (CIS);
- Interview members of the Livelihood Restoration Working Group (LRWG) and senior managers of TechnoServe regarding the LR Programme 'Support Services' and members of the Water Board Committee (WBC) with respect to the potable water supply project. In addition, informal discussions occurred with PAPs participating in the LR Programme 'Support

⁶ Lender to VUGL debt financing package

⁷ Guarantor to support the gas development

⁸ Insurer for the lenders to VUGL, including Equator Principles Banks and Export Credit Agencies.

⁹ For the fourth visit, the two-person team was joined by a Ramboll biodiversity expert at the request of the WBG.

¹⁰ Eni Ghana documents have started to refer to (old) Bakanta. This is the DAoI village. There is a more recent settlement named 'Bakanta' nearby, but it is not a DAoI village. The term (old) Bakanta will be used in this report when referring to the DAoI village.

Services' as/when encountered during the visit to sites where income-generating activities were occurring;

- Discuss fisheries-related issues with the Fisheries Management Coordination Committee (FMCC); and
- Revisit compliance with the updated ESAP (February 2018).

The 'Project Operator' is Eni Ghana. Face-to-face interviews were held primarily with Eni Ghana's:

- Senior Management;
- Health, Safety and Environment (HSE) Team;
- Sustainability & Local Content (SLC) Team; and the
- Security Manager.

Further face-to-face interviews/meetings were held with representatives of the following Eni Ghana contractors, including:

- Technip India Limited (TechnipFMC) - the main contractor for construction of the ORF;
- ESL Consulting;
- Ghana Wildlife Service (GWS); and
- TechnoServe (LR Programme 'Support Services' delivery).

Vitol's HSE Manager was present during many interviews/meetings and available to answer any questions raised by the IESC. Also, representatives from the World Bank and IFC participated in the monitoring visit. Eni Ghana and Vitol made available all personnel requested by the IESC and fully cooperated with all requests made by the IESC throughout the visit.

2. SCOPE AND STRUCTURE OF THE REPORT

2.1 Scope of the monitoring visit

As a condition of the Project ESAP (Appendix 1), Eni Ghana and VUGL are required to appoint an IESC to monitor and report on the implementation of the ESAP and compliance with WBG Performance Standards and Project Environmental and Social (E&S) commitments.

This E&S Monitoring Report details the Project's compliance with the applicable Project Standards listed in Section 2.2, and in doing so, presents the E&S risks associated with the Project. It has been prepared for the attention of VUGL, the IFC and other entities defined as relying parties¹¹. It addresses the various components of the Project (as defined in Section 3, Project Description).

The report presents the findings of the May 2019 monitoring visit based on information gained following: interviews with Eni Ghana personnel, key contractors and their subcontractors, certain Project-Affected Community (PAC) members and other stakeholders as listed in Section 1 above. This report also provides a description of visual observations made during walkover inspection of Project facilities, notably the ORF, the GES shoreline crossing and associated construction activities/constructed facilities plus visits to sites associated with delivery of the LR Programme 'Support Services' and the potable water supply project.

A full list of Project documentation reviewed during preparation of this E&S Monitoring Report is provided in Appendix 2.

The site visit was undertaken during the period 20-23 May 2019. The tasks performed are summarised below and detailed in the monitoring visit itinerary (Appendix 3):

- An opening meeting followed by subject-specific meetings, in the Eni Ghana offices, Accra, with Eni Ghana HSE, Security Manager and SLC team members;
- A two-day visit to the ORF and associated construction activities for site walkover inspection and meetings with construction contractors, environmental and biodiversity consultants. Also, during this period, site visits were made to facilities related to the LR Programme 'Support Services' component, the potable water supply project and a meeting was held with the FMCC, the LRWG and with WBC representatives; and
- Further meetings in Accra with Eni Ghana HSE and SLC teams, and a close-out meeting to present preliminary findings.

Meetings and interviews primarily concerned the management and monitoring of the following Project Health, Safety, Environment and Sustainability (HSE and S) aspects:

- HSE and SLC resourcing
- Audit and inspection programmes (HSE and SLC);
- Permitting;
- Management of change (MoC);
- Biodiversity, including reinstatement;
- Termination of the Transitional Food Aid Support;
- Land-based livelihood restoration (implementation actions);
- Fisheries displacement and impact management (fishing and fishmongering);
- Labour relations, primarily labour demobilisation and worker grievance management;
- Environmental monitoring including offshore waste water management;
- Greenhouse Gas Emissions monitoring and reporting;

¹¹ Relying parties include Eni Ghana and the World Bank, MIGA, and other lenders.

- Influx management
- Management of cumulative impacts;
- CIS implementation (including status and progress for two QIPs);
- Stakeholder engagement/community grievance mechanism;
- Occupational Health and Safety (OHS) plans and procedures;
- Security management;
- Takoradi to Tema Interconnector Project (TTIP) and the Tema Regulating and Metering Station (TRMS) community safety; and
- Status of ESAP requirements.

2.2 Project Standards

In accordance with the IESC's Terms of Reference, the Project was assessed against the following standards and guidelines:

- Applicable laws and regulations of Ghana;
- WBG Performance Standards (2012):
 1. PS1: Assessment & Management of Environmental & Social Risks & Impacts;
 2. PS2: Labour and Working Conditions;
 3. PS3: Resource Efficiency and Pollution Prevention;
 4. PS4: Community Health, Safety, and Security;
 5. PS5: Land Acquisition and Involuntary Resettlement; and
 6. PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- WBG Environmental Health & Safety (EHS) Guidelines applicable to the Project including:
 1. EHS General Guidelines (2007);
 2. EHS Guidelines for Offshore Oil and Gas Development (2015); and
 3. EHS Guidelines for Onshore Oil and Gas Development (2007).

PS7 (Indigenous Peoples) was excluded from the scope of the independent monitoring on the basis that the Environmental and Social Due Diligence¹² performed prior to financial close concluded that no Indigenous Peoples are affected by the Project.

PS8 (Cultural Heritage) was excluded from the IESC's scope, however some text has been included in previous IESC monitoring reports insofar as it relates to specific issues such as shrines and chance finds. In this report, cultural heritage issues have not been revisited.

2.3 Structure of the Report

Section 3 below describes the status of construction/production activities at the time of the visit. Section 4 describes how different levels of significance are attributed to issues highlighted in the report, and Section 5 outlines the Ghanaian legislative framework and other applicable Project Standards. The report is then structured around the seven IFC Performance Standards that applicable to the Project, as listed above. The key issues identified during the monitoring visit are summarised in 'significance tables' for each Performance Standard. The status of key issues identified in previous monitoring reports is provided in Appendix 4; these are closed where possible based on discussion and findings made during the visit.

¹² An environmental and social due diligence (ESDD) exercise was performed by KBC Process Technology Ltd on behalf of potential lenders [Ref - Environmental and Social Review OCTP Project, Ghana September 2016]. The ESDD Report identified a number of issues and made recommendations that were transposed into an Environmental and Social Action Plan (ESAP). The ESAP provided in the ESDD report formed the basis of the final agreed ESAP included in Appendix 1 of this report.

The report has endeavoured to provide a balanced opinion, providing examples of good practice. However, being a compliance report covering a broad range of aspects, it does focus mostly on observations and non-compliances.

2.4 Limitations

At the time of the visit no material limitations affected the IESC's ability to perform its duties. The IESC only considered activities relevant at the time of the monitoring visit based on ongoing Project activities.

3. PROJECT DESCRIPTION

This section is intended to provide a brief description of the Project and the status of construction/production activities at the time of the visit. It also highlights any material design changes that might result in HSE and S impacts.

3.1 Project description

The Project, as described in the ESIA documentation, involves the development of the Sankofa East oil field and non-associated gas in the Sankofa and Gye Nyame Gas Fields, which are located offshore, 55 to 60 km from the coastline of the Western Region of the Republic of Ghana (Figure 1). The operator, Eni Ghana, is developing these fields as an integrated oil and gas development Project utilising a newly converted double-hulled FPSO facility. Other key components of the Project include:

- Fourteen wells for oil exploitation (producing and injection wells); oil is transferred to tankers for direct export to market;
- Five wells for non-associated gas exploitation;
- A 63km subsea gas pipeline from the FPSO to shore;
- A 1.5 km onshore gas pipeline from the shore to the ORF;
- The ORF (Figure 2), including a gas compressor station, pilot and permanent accommodation camps, firefighting station, helipad and medical facility; and a tie-in to the existing Ghana National Gas Company (GNGC) 20-inch gas pipeline; and
- A logistics base in Takoradi and a quay within the port of Takoradi.

The Project is split into two phases:

- Phase 1: Oil Development Project. This phase consists of the 14 subsea wells (8 oil producers, 3 water injectors and 3 associated gas injectors), subsea facilities, and a FPSO unit that would be located approximately 60 km offshore south of Sanzule; and
- Phase 2: Gas Development Project. This phase will consist of 5 subsea wells, subsea facilities, gas treating facilities on the FPSO unit, a 63km subsea gas pipeline (gas export sealine or GES), the ORF, and tie-in with the GNGC sales gas pipeline.

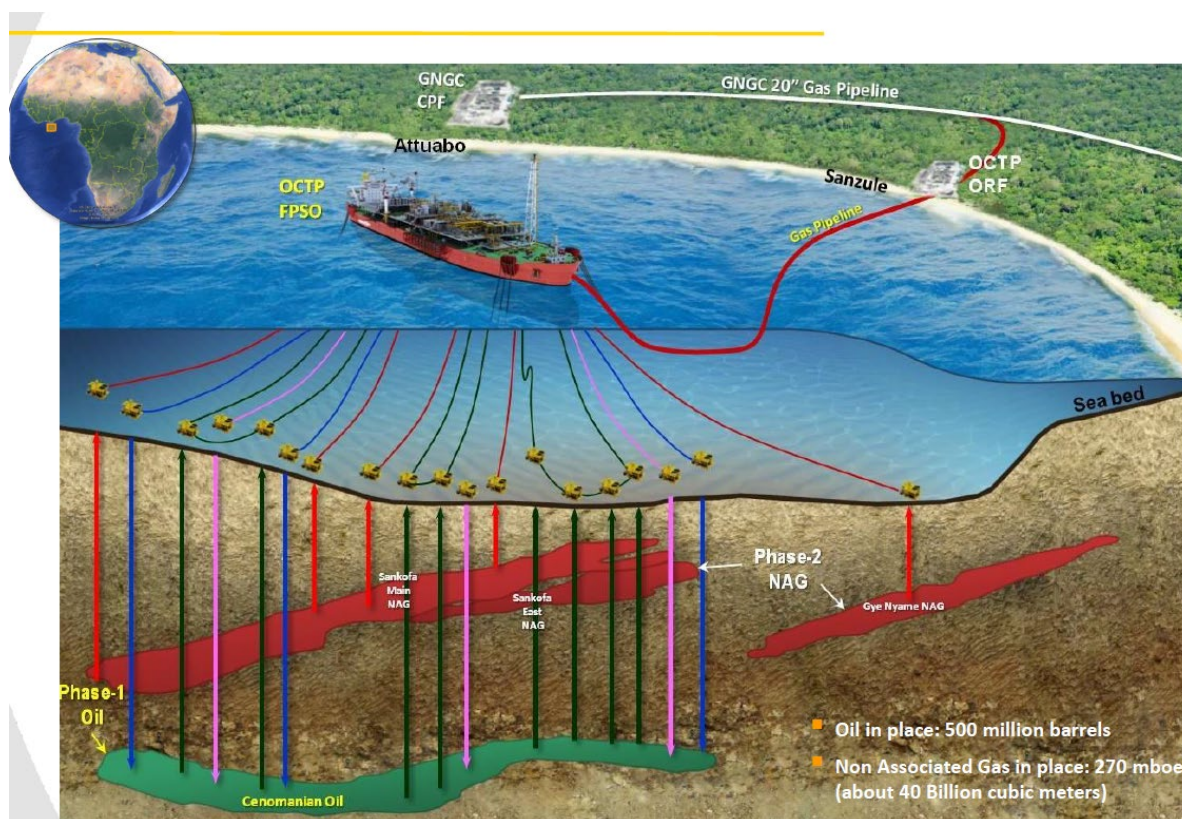


Figure 1: Schematic of the OCTP Project

Material Project design/scope changes since the ESIA was prepared include 3 infilling wells, the upgrade of regulating and metering stations with a short interconnecting pipeline in Takoradi associated with the West Africa Gas Pipeline and a revised approach to nearshore pipeline installation/beach crossing. The changes have been described in previous reports and are not duplicated here.

3.2 Status of the Project at time of the monitoring visit

The Project is well into its Production phase with first oil achieved in Q2, 2017 and first gas Q3, 2018. At the time of the May 2019 monitoring visit:

- the FPSO had been in position and lifting oil since mid-2017;
- materials supply was complete (Q1, 2018);
- drilling and completion of the 19 subsea wells was complete;
- construction of the ORF tie-in to the GNGC gas pipeline was complete;
- The GES was installed with gas being exported to the ORF since 4th August 2018; post lay trenching (Figure 3) was completed in November/December 2018;
- All three compressors were operational, and gas was being supplied to the GNGC gas sales pipeline for onward distribution;
- Fencing was largely erected;
- Reinstatement of disturbed land progressing at pace; and
- Two out of the three infill wells had been completed with the third very close to completion.

In summary, construction was largely complete at the onshore facilities with the exception of minor works and construction of the permanent accommodation camp. Completion of works at

the permanent accommodation camp was planned for end of June 2019, and all construction activities completed by end of August 2019.



Figure 2: Onshore facilities

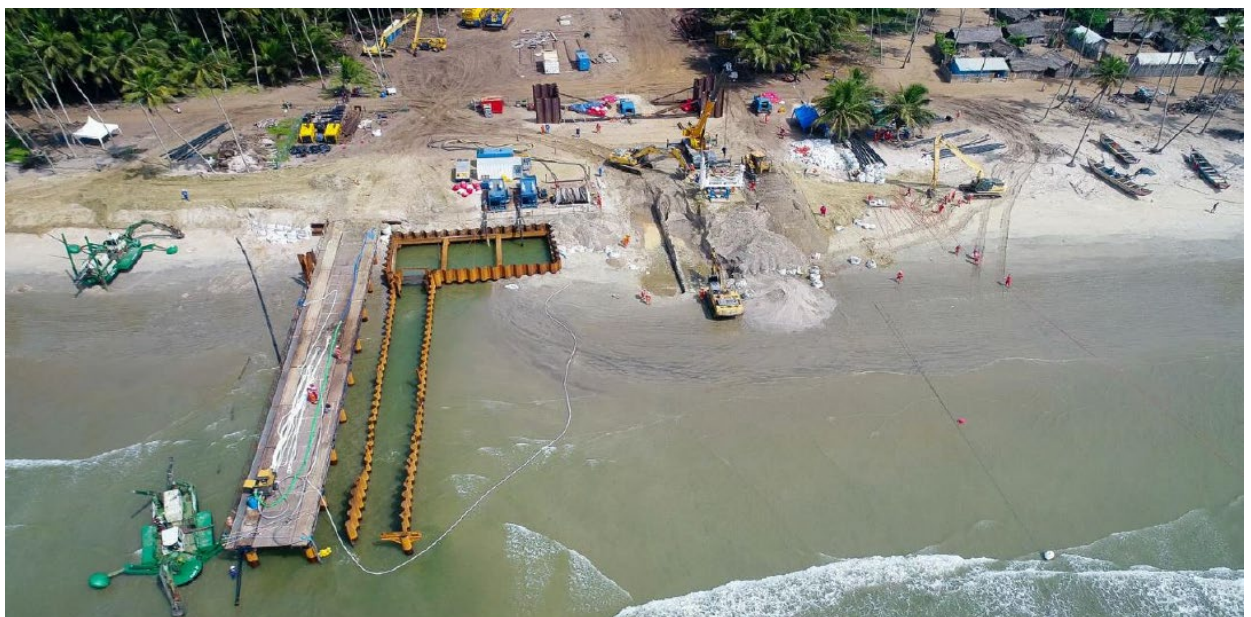


Figure 3: Aerial view of post lay trenching activities in December 2018

For the Takoradi to Tema Interconnector Project (TTIP) work at the Takoradi hub had been completed. The Tema metering station had been subject to significant design changes and work was ongoing. Overall progress taking account of design, procurement and construction at the three metering and regulating facilities was as follows:

1. GNGC Takoradi: 97% complete and ready for start-up;
2. WAPCo Takoradi: 96% complete and ready for start-up; and
3. WAPCo Tema: 58% against original scope however undergoing scope optimization with the original scope discontinued in March 2019.

As of mid-May 2019, due to the construction works being nearly completed, the workforce consisted of 459 employees at the ORF site (compared to 1100 in mid-September 2018 and approximately 600 at the end of 2018) excluding the security guards who number approximately 80¹³. Many of the workers are employed by Consar, but there are small numbers still on site from other contractors/sub-contractors such as TechnipFMC and Orsam. Since September 2018, 712 workers have been demobilized. Demobilization is expected to be completed by end August 2019 unless potential problems outside Project control (such as extreme weather events during the wet season) causes a delay to the remaining part of the construction schedule.

At the end of March 2019, the proportion of ORF workers from the DAoI villages was almost 38% and this percentage was slightly higher than percentages previously reported, which, since the beginning of the construction phase, has been consistently within the range of 30-35%.

¹³ Security guard estimate taken from figures in the Q1 and Q2, 2018 quarterly monitoring reports prepared by Eni Ghana.

4. SIGNIFICANCE ASSESSMENT

4.1 Review Findings

A summary of the review findings is presented in a significance table at the end of each section. For each item, the following is presented:

- The aspect;
- A description of the issue, for example deficiencies or omissions;
- The phase(s) to which an issue relates;
- Identification of the standard(s) against which the deficiency or omission has been identified;
- The IESC’s recommendation, where applicable, to resolve/manage the deficiency or omission; and
- The significance of the issue on a three-point scale (see below for criteria).

4.2 Assessment of Significance

A ranking system has been used to indicate the relative significance of an issue identified during the monitoring visit. As well as highlighting the most important areas requiring attention, it can also be used to aid the tracking and rectification of specific items requiring improvement.

Identified issues have been placed into one of the following four categories:

Minor: Minor non-compliance, risk or minor technical breach of Applicable Standards and commitments with no material, actual or likely potential: environmental or social consequences; or significant human injury or harm.

Moderate: Moderate non-compliance or risk with actual or likely potential: localised and short-term environmental or social consequences; minor human injury or harm; or material short-term breach of Applicable Standards and commitments.

High: Major non-compliance or risk with actual or likely potential: spatially extensive and/or long-term environmental or social consequences; serious human injury/death or harm; or material and extensive breach of Applicable Standards and commitments.

Not Applicable Issue is noteworthy, but it is not a matter of non-compliance.

Where time-critical recommendations are made (for example, for specific actions), a timeframe linked to Construction/Production phase milestones is indicated in the IESC Recommendations’ column. Time-critical issues can lead to a higher classification of significance. Similarly, findings made in earlier reports that have not been addressed may be given an elevated significance categorisation in this report.

Table 1: Example of the summary table format

ID	Aspect	Issue Description	Phase ¹⁴	Standard	IESC Recommendations	Significance
00	Storm water run-off – monitoring	The ESAP requires <i>Company X</i> monitors the quality of	Ops	WBG EHS Guidelines ESAP	<i>Company X shall expedite procurement of monitoring equipment with the</i>	Moderate

¹⁴ Phases can include: construction; production; decommissioning or any combination of these phases.

ID	Aspect	Issue Description	Phase ¹⁴	Standard	IESC Recommendations	Significance
		<p><i>surface water run-off from facilities.</i></p> <p>To date the Company has been unable to procure monitoring equipment – no monitoring has been undertaken.</p>			<p><i>support of senior management.</i></p>	

5. LEGISLATIVE FRAMEWORK AND OTHER PROJECT STANDARDS

5.1 Summary of legislative framework

The undertaking of projects such as oil and gas developments requires registration and authorisation by the Ghana Environmental Protection Agency (EPA). The EPA was established under the Environmental Protection Agency Act (Act No. 490 of 1994) as the leading public body responsible for the protection and improvement of the environment in Ghana. The EPA has the authority to require an EIA Report and is responsible for issuing and enforcing requirements specified in environmental permits. Permits are also required from other regulatory bodies including the Petroleum Commission (PC), Energy Commission (EC) and Ghana Maritime Authority (GMA).

5.2 Permitting

The status of the Project's permits has been discussed in preceding monitoring reports. During the site visit the IESC met with the Permit Manager to discuss the status of permits and, in particular, whether any permits were outstanding. A permits and approvals database, dated 20 May 2019, was also provided for review and discussion.

Given the phased transition from construction activities to production over an extended timeframe, the nature of the Permits has been changing, with many construction-related permits no longer needed/superseded.

The database reports the status of all key environmental permits with the exception of 'Environmental Permit for Operations Phase (Phase-2 Gas)'. However, this permit has been provided to the IESC; consequently, the IESC can report that all material environmental permits were found to be in place and valid at the time of the visit.

6. PERFORMANCE STANDARD 1: ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

6.1 Requirements specified in the ESAP

The ESAP was revised with the Lenders agreement and reissued on the 1st February 2018. Changes to the original ESAP, and their implications, were discussed in previous monitoring reports, including the Q2 2018 IESC desk-top monitoring report. The majority of ESAP items have been closed since it was developed in June 2017, however certain items have not been closed/are ongoing in nature and therefore relevant to this report as follows:

1. *'Eni Ghana with support from Vitol will develop a construction/ development phase Environmental, Social, Health Management Plan (ESHMP) and the relevant management plans and programs in advance of development drilling and construction, followed by a production/operations ESHMP which will be developed before first oil, **with gas-related elements integrated as needed before first gas**. Phase-2 commissioning and production operations: by end of July 2018 **or one month prior to commissioning / production operations whichever comes first. (emphasis added by IESC)**'*. The IESC can confirm that plans have been revised for Production phase purposes with the following exceptions:
 - The Security Management Plan (see Section 9.3); and
 - The Stakeholder Engagement Plan (see Section 6.6).
2. *Finalization report by [Livelihood Restoration Plan (LRP)] implementing organization submitted to WBG and Completion Implementation audit carried out by an external competent resettlement professional and report submitted to WBG: Completion audit to be prepared one year after the completion of the implementation of the LRP. One of the 'Indicators of Completion' for this item is "...an Interim Implementation Audit carried out by an external competent resettlement professional and report submitted to WBG by 31 March 2019." At the time of the IESC's May 2019 monitoring visit an interim external implementation audit was underway with the report due in June 2019. The final external completion audit will occur once LRP implementation is completed, see Section 10.2.5.*

The IESC concludes that, with the exception of the Security Management Plan and the Stakeholder Management Plan there are no overdue actions/deliverables based on the dates specified in the ESAP.

6.2 HSE and Sustainability and Local Content responsibilities and resources

Resources in the HSE and SLC Departments were reviewed during the monitoring visit. Particular consideration was given to the changing demands associated with the move to full production and reducing construction activities going forward.

The current SLC organigramme is shown in 2 parts (Figures 4 and 5): Figure 4 shows the key 'functional' posts and Figure 5 shows the personnel devoted to supporting two of these posts: Stakeholder Management and Local Sustainable Development. This organigramme is expected to be in place for at least 1 year. It is different in structure to the previous organigramme in September 2018 (see Figure 6) and a few observations are provided on the main changes below.

The structure of the organigramme has altered to reflect changing priorities due to the transition from construction to production. For example, the scope of managing fisheries-related issues has changed. Until the end of 2018, displacement of fishery-based livelihoods due to onshore and nearshore activities was an important issue to manage. Now that the post-lay trenching of the

pipeline has been completed there are no longer any foreseen restrictions on fishing practices undertaken from the beach or in nearshore waters. Apart from the alleged effects of an underwater abandoned anchor or cable (this issue is under investigation as a fisheries-related grievance – see section 6.8.1), the only key issue of concern requiring careful management is incursion of fishing canoes into offshore exclusion zones, specifically, the exclusion zone around the FPSO. At the same time, a range of actions as part of CIS implementation will be starting and these will require the attention of more staff than has previously been the case (the CIS applies to 10 communities, 6 of which are located outside the DAoI). Consequently, there has been a reduction in posts/personnel related to fisheries issues: there is now only one person devoted to fisheries issues (Fisheries Management Plan Delivery Officer) and no Fisheries Liaison Officers; their functions being transferred to the existing Community Liaison Officers. The number of posts/personnel focusing on CIS implementation has increased by one.

A change has occurred regarding posts/personnel devoted to stakeholder management and engagement. These posts are now consolidated under one post: the Stakeholder Management Coordinator; in previous organigrammes such posts were more dispersed and thus there were more reporting lines. In the IESC's view, this consolidation is likely to make management of all stakeholder engagement activities easier and more effective.

Also, of note, is a change in personnel occupying the post of Local Sustainable Development Co-ordinator. This post plays a pivotal role in managing all activities that are under the umbrella of 'sustainable development' (includes LRP management, CIS [and QIP] implementation and fisheries-related management). In recognition of the demands of the increasing pace of CIS implementation and of the LRP 'Support Services', which is moving to a critical phase when revenue-generating actions are expected to be delivering sustainable revenue streams to all beneficiaries, a second support post has been created to aid the Local Sustainable Development Co-ordinator. The IESC considers the addition of this post in the SLC department as both a necessary and positive step.

Overall, the total number of staff has reduced (due primarily to loss of Fishery Liaison Officers). The number of staff based in Sanzule has decreased from 22 to 15 again mostly due to the removal of the Fishery Liaison Officers. The retention of a sizeable SLC staff presence in Sanzule is considered appropriate by the IESC given the context and specific tasks related to a) managing the completion of the transition to production (including continuing worker demobilisation up to end August 2019); and b) the importance of ensuring a successful delivery of both the LR Programme 'Support Services' component and the QIPs (and, after January 2019, CIS implementation). Senior staff remain based in Accra (see Figure 4) and continuity of knowledge is maintained as there are very few changes in personnel.

The SLC Department continues to be supported by the Eni HQ Sustainability function, which is based in Milan (see 'box' in the organigramme (Figures 4 and 5) entitled 'Social Projects Implementation Support').

Organigrammes for the HSE team were also presented during the visit. Some minor restructuring has taken place in recognition of the Project's progressive transition into production with a small reduction in numbers, however the structure and resources remain sufficient for the HSE duties associated with the stage of the Project. Of note, key HSE staff have been retained, offering continuity of knowledge, and in addition to an HSE function in Accra, HSE functions are present at each of the main facilities: ORF, logistics base, FPSO and drill ship as shown in figures 7 and 8. The post of 'Quality Advisor' remains to be filled.

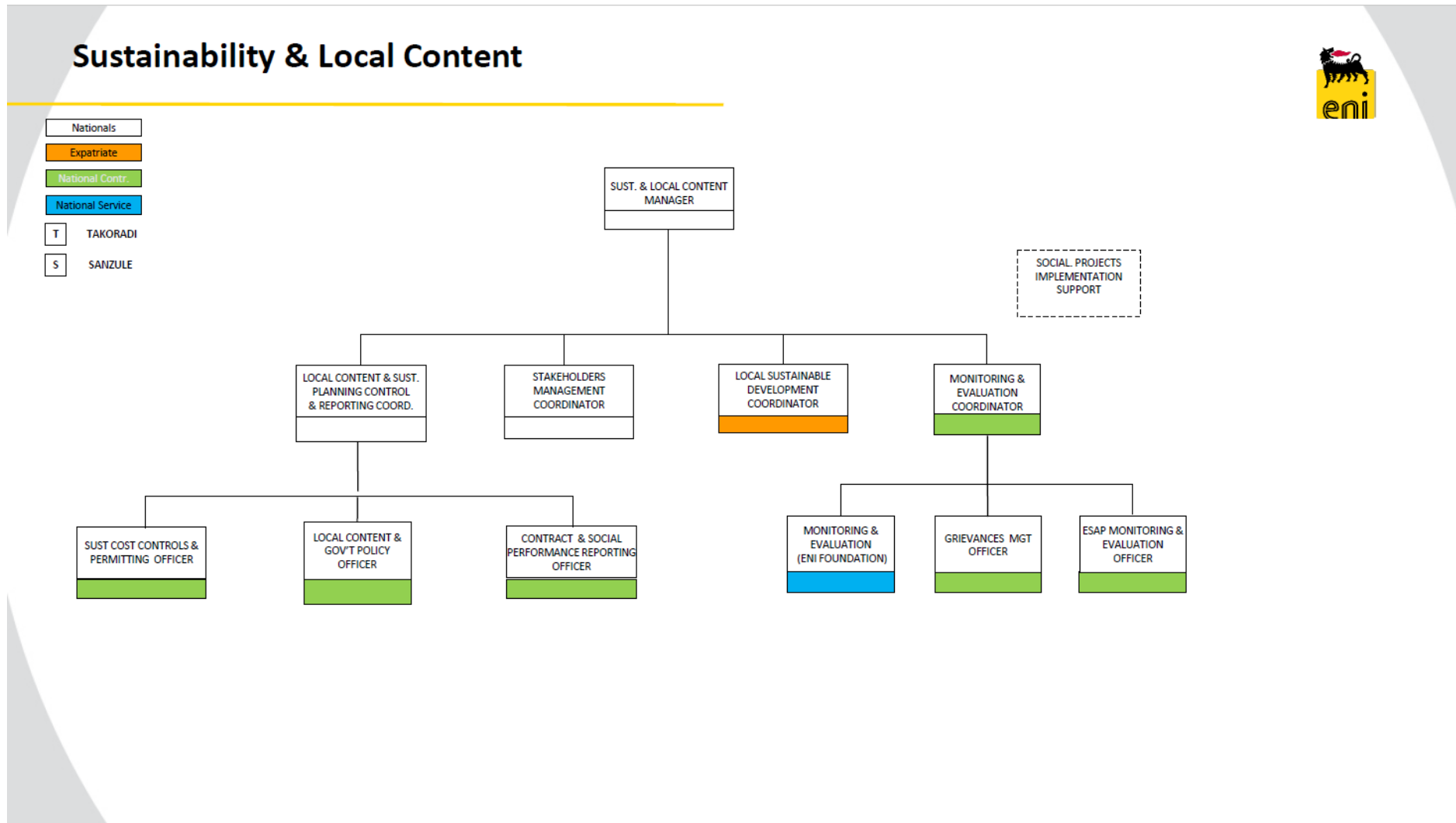


Figure 4: Sustainability & Local Content Department Organigramme – May 2019

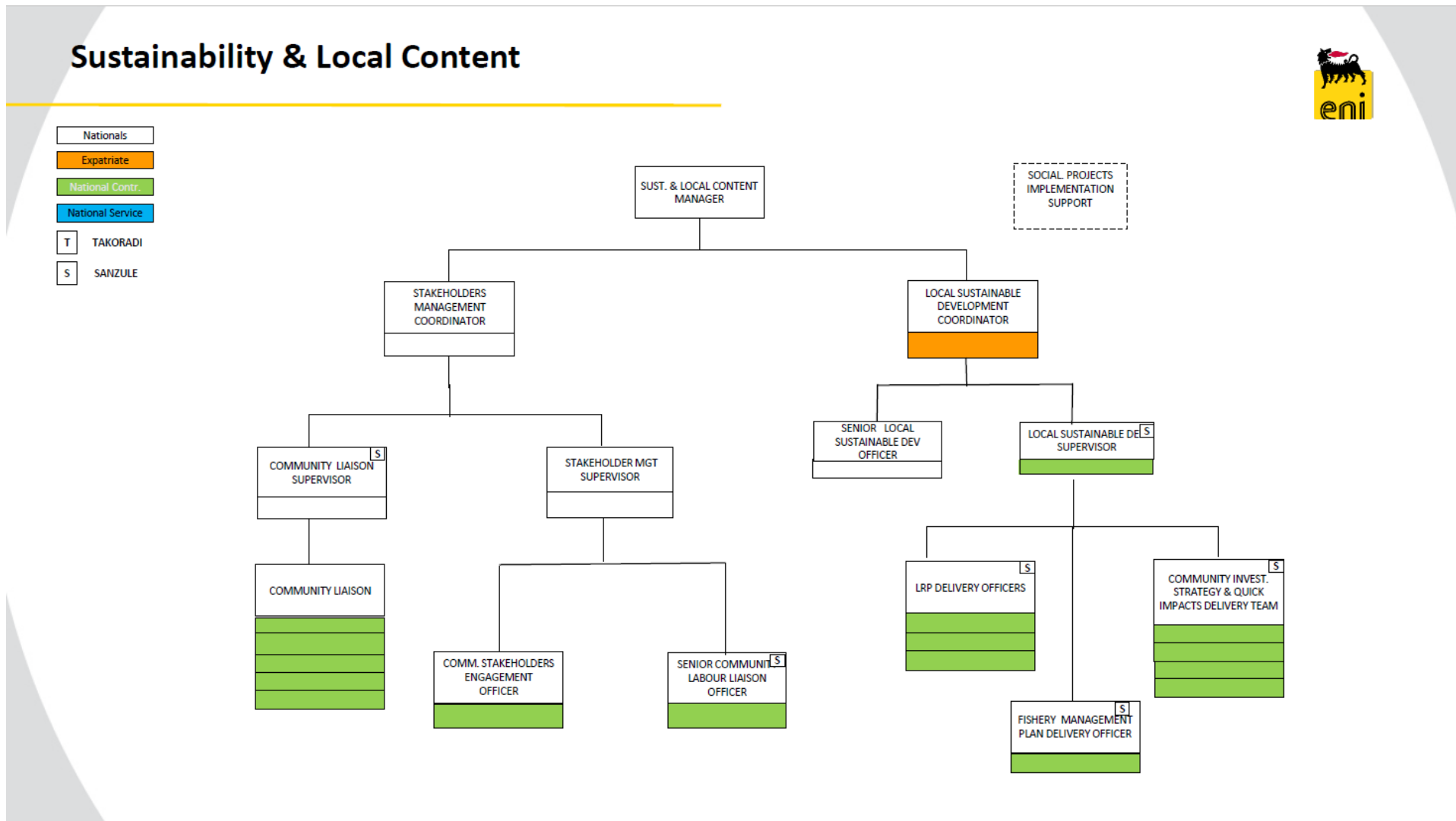


Figure 5: Sustainability & Local Content Department Organigramme – May 2019

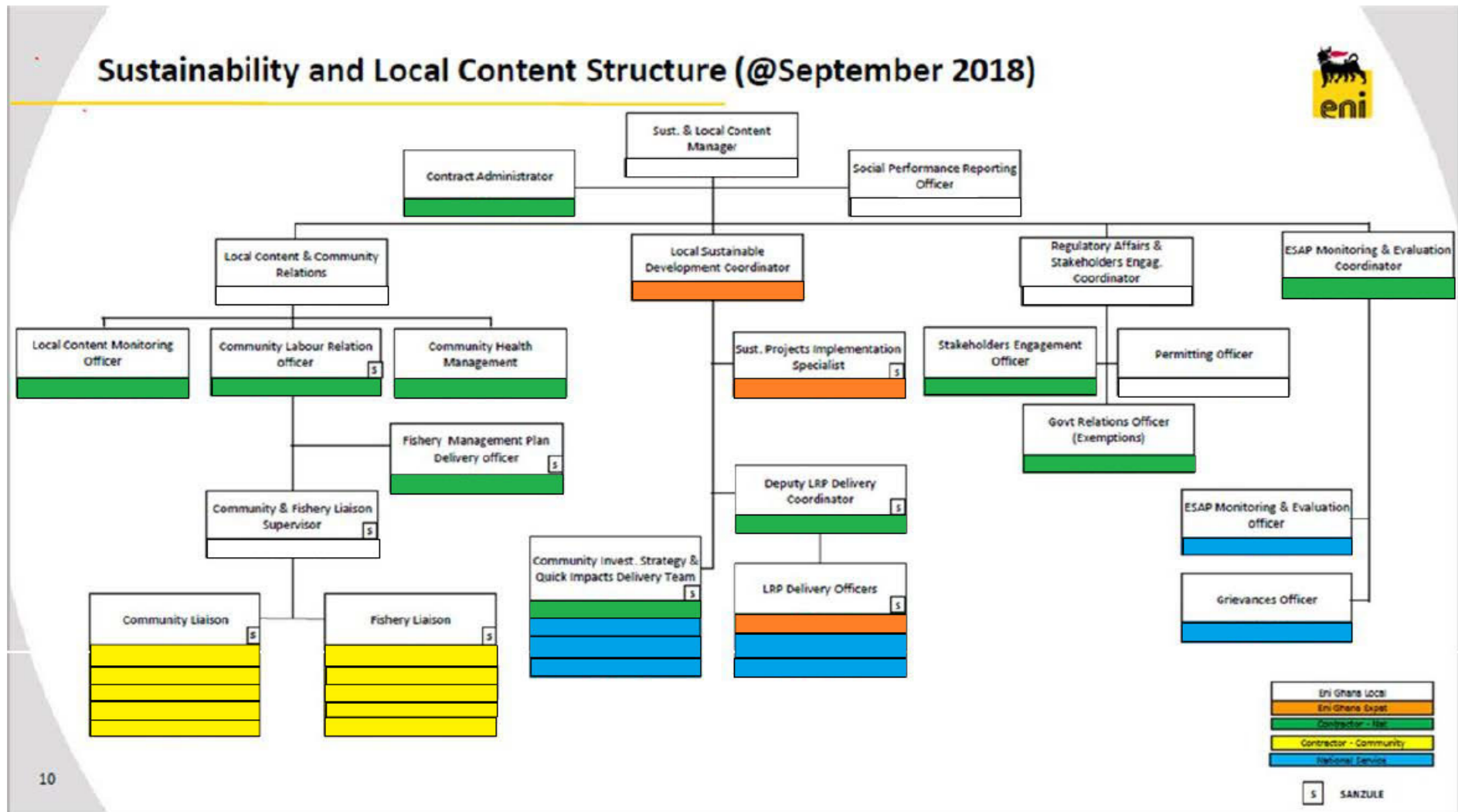


Figure 6: Sustainability & Local Content Department Organigramme – September 2018



Safety, Environment & Quality

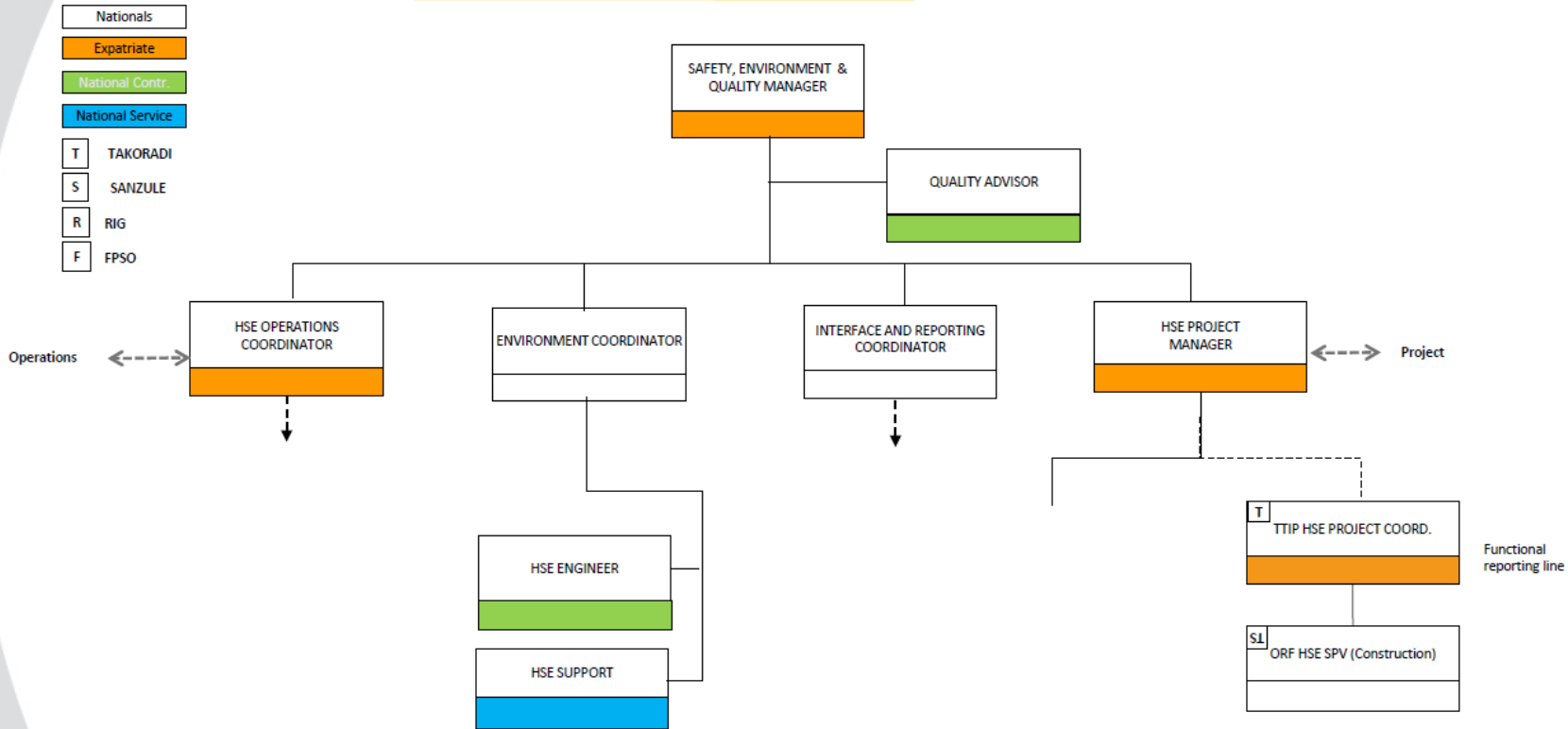


Figure 7: Safety, Environment and Quality – May 2019



Safety, Environment & Quality

- N Nationals
- E Expatriate
- N National Contr.
- N National Service
- T TAKORADI
- S SANZULE
- R RIG
- F FPSO

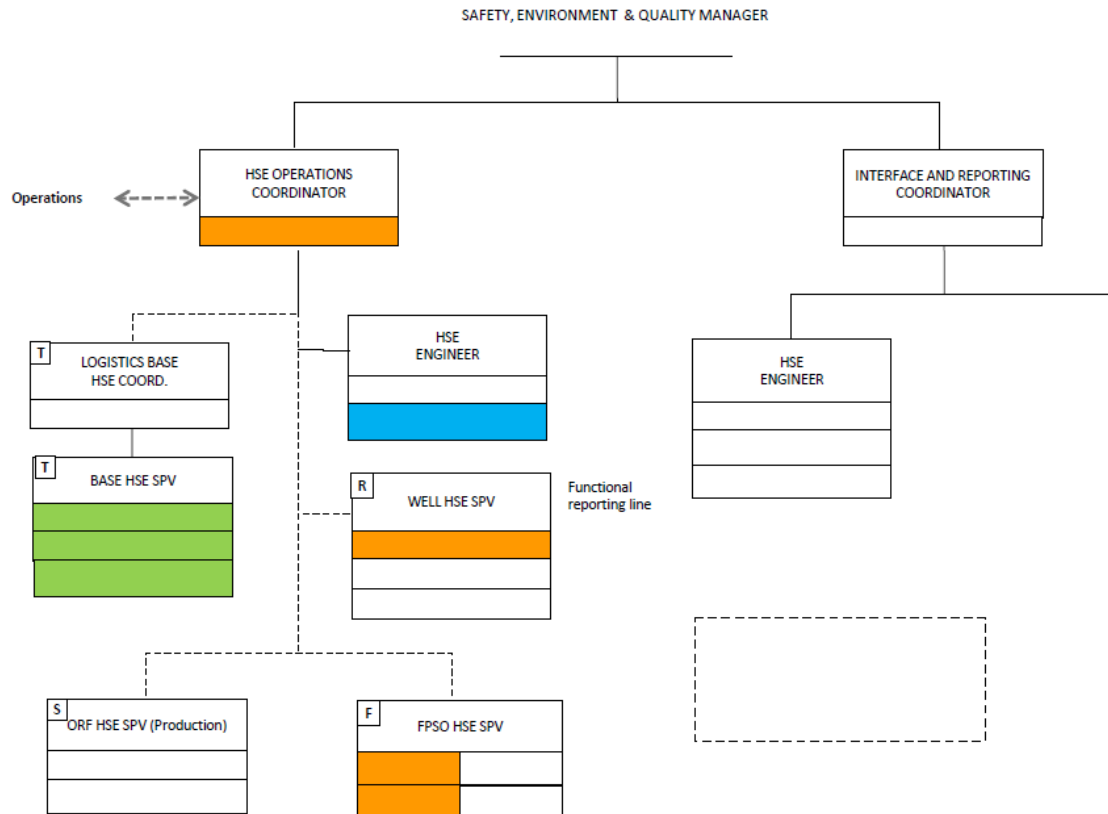


Figure 8: Safety, Environment and Quality – May 2019

Offshore Cape Three Points**6.3 Contractor management and performance****6.3.1 SLC Issues**

In previous monitoring reports, beginning in 2018, the IESC has reported on audits, entitled 'ESAP Monitoring and Evaluation Audit', of Contractors' E&S performance including, for example, the operation of both the community and workers' grievance mechanisms at the contractor level and the interface between the contractors and Eni Ghana. To date there have been 3 audit phases (October – December 2017; June-July 2018 and December 2018). In total, 8 contractors (and two sub-contractors to one of the contractors) were subject to this audit process.

As the Project moves further into the transition between construction and production, new contractors are appointed. Eni Ghana ensures that all new contractors are aware of the importance of implementing the requirements in key 'SLC' plans (including the community and worker grievance mechanisms). For 2019, Eni Ghana intends to reduce the frequency of audits to 1 per year reflecting the reduced number of contractors and the increased duration of contracts during the Production phase.

In its Q3 2018 monitoring report, the IESC noted that, in the Minutes of a consultation meeting with the (old) Bakanta community, it is recorded that the chief mentioned that TechnipFMC, *"...promised to construct a Junior High School (JHS) for the community but he was later informed that the resource will be used to construct a hotel facility for the vocational school in Sanzule as advised by the District Assembly."* Subsequently, the IESC learnt that Vitol had suggested that community investment projects, sponsored by contractors, are approved or, at minimum, monitored by the Project to manage potential reputational risk associated with contractor community investment initiatives. The issue of managing contractor community investment initiatives was investigated during the May 2019 monitoring visit and the IESC was informed by the ESAP Monitoring and Evaluation Coordinator that contractors are required to discuss intended community investment initiatives with Eni Ghana and any such initiatives selected for implementation must be aligned with Eni Ghana's own community investment intentions.

6.3.2 Security

During a meeting with the new Security Manager, the IESC was informed that the version of the Security Management Plan (SMP), sent to the WBG on 15 October 2018, was still in the review/commenting process. Also, later the Human Resources/Personnel Director (responsible for the security function) confirmed that the SMP version (with an Effective date: 01 January 2018; and a Revision date: 15 January 2019) was the SMP in place and being applied by the Project. Once the current version of the SMP, which is under development for WBG review, is agreed/accepted by WBG and approved /signed off by Eni Ghana, it will replace the current version.

Security-related requirements are provided to potential contractors via Appendix Q of the contract template. Appendix Q plays the same role as Appendix Y (SLC requirements) in the context of contractor management. In its September 2018 monitoring report, the IESC stated that, *"Given the fact that the Project SMP was already under review with a revised version to be approved soon, the IESC did not consider it to be useful to check that the (then) current version of the Project SMP and Appendix Q were aligned."* As there is still no revised approved/signed off SMP, implementing this check has not been possible. The lack of an approved/signed off SMP means that Appendix Q currently reflects an outdated SMP.

Further detail about the Project's security management performance is provided in Section 9.3.

Offshore Cape Three Points**6.3.3 Gate security - Use of T-cards**

The IESC noted confusion during the use of T-cards at the temporary accommodation camp in the ORF. More specifically, the same T-card had been assigned to two different visitors resulting in sign out (card switched to red) when the original visitor was still on site. The problem may have been in part due to poor use of T-cards by visitors but also the high number of visitors on the day and a limited number (12) of visitors' T-cards. Appendix 5 Photo 20 shows reuse of a T-cards before original visitors had left the site. The IESC recommends the use of T-cards at the site is reviewed with consideration given to: i) further training for security personnel; and ii) provision of additional visitor T-cards to allow for peak visitor numbers.

6.3.4 TechnipFMC

The level of construction work had significantly reduced at the time of the May 2019 site visit. Nevertheless, significant construction activity by a workforce of 459 was ongoing at the ORF Permanent Accommodation Camp (PAC) under the management of TechnipFMC and their main contractor, Consar. Similar to previous site visit, the IESC met with representatives of the Contractors and witnessed construction activities on-site. The IESC understands TechnipFMC and Consar were retained for the works bringing a consistency of working practices.

Health and safety performance continued to be very good with zero incidents reported for the PAC. The ratio for HSE supervision is 1:25 (as before) and the total number of training hours equates to 1.32% of the total hours worked. HSE practices, resources and initiatives described in previous reports continue to be applied and result in good H&S performance.

In addition to a general walkover for the ORF site, the IESC undertook two walkover inspections at the PAC and the Consar base/workshop area.

The ORF walkover inspection

During the previous visit the IESC noted some H&S opportunities for improvement relating to the inappropriate use of reinforcing steel bars (rebar) and end caps as warning indicators. During the May 2019 site visit, no such occurrences were seen. Whereas this would be expected given completion of construction, the recommendation had clearly been applied across the entire ORF site, including the PAC.

The Consar workshop/maintenance area inspection

In its previous site visit the IESC reported several opportunities for improvement relating to:

- Failure of several workers to use correct footwear;
- Poor use of rebar to protect against a trip hazard;
- Evidence of minor diesel spills during refuelling of the generator (Appendix 5 photo 4); and
- Use of inadequate structures for the elevation of a 1000 litre intermediate bulk container filled with diesel.

During the current site visit, the same area was revisited. The IESC can report that corrective actions had been made for each issue identified.

Based on a brief visit to the Consar workshop area, in addition to specific actions to address earlier IESC observations, the IESC noted a general improvement in housekeeping. However, one further observation is made:

- Gas cylinders were stored in a dedicated locked area. However, the individual cylinders were not secured (to prevent toppling over), thus presenting a risk to those with access to the cylinders.

Offshore Cape Three Points**6.4 Community Investment Strategy**

Action 14 of the ESAP requires, *"Eni Ghana and Vitol Ghana, as partner of the OCTP project, will develop and implement a community investment strategy for the area of influence of the project by identifying areas of potential social investment based on community assets and needs. The community investment strategy will be developed in consultation with local and regional stakeholders."*

While work was continuing in 2017 to finalise the CIS¹⁵; Eni Ghana started work (Q4 2017) to implement certain Strategy 'interventions'¹⁶ with the aim of designing, agreeing and then implementing projects that could deliver 'quick impacts' to local communities near the ORF.

There are two identified 'quick impact' projects – both of which are pilot projects:

- Potable water supply for Sanzule, Krisan and (old) Bakanta; and
- Educational facilities upgrade and school leadership and teacher capacity-building (all five DAoI communities).

The potable water supply project was planned to provide potable water (meeting World Health Organization water quality standards) to the target communities during Q3, 2108. In its Q3 2018 monitoring report, the IESC summarized the situation regarding this project as follows:

- The water supply project was completed in November 2018 (originally planned to be completed by 21 October) and was inaugurated on 01 December 2018 in Sanzule;
- Community members pay a levy for the use of the water which is used to maintain the system. A community-based Water Board Committee (WBC) to manage the project's delivery of water was established and members trained. Day-to-day operation of the system is done by trained community-based operators;
- A handover certificate was drafted, finalized and signed by the appropriate authorities (handover to the communities of Krisan and Sanzule (the IESC understands that references to Sanzule, in this context, include Anwolakrom) and (old) Bakanta;
- A water, sanitation and health programme of community sensitization and training was completed reaching ~90% of households, selected churches and schools in the three communities; and
- There are community requests for an extension to the water distribution network to include households distant from the existing water fetching points (such as those in Sanzule (including Anwolakrom) and other nearby communities).

There have been some difficulties, especially in terms of managing the project: prior to visiting a fetching point in Sanzule, the IESC was informed that the WBC was now 'coming back to life'. An important initiative being undertaken by Eni Ghana is to extend the water distribution network in Sanzule (including Anwolakrom) to make it easier for more residents to access the water. Also, an increase in water use will mean an increase in the overall levy which would help the project to become more financially viable. Extending the network and the expected uptake in potable water use is likely to help to reduce the existing health threat posed by people continuing to use water from the existing boreholes (this water is not monitored and is known not to meet standards for potable water). This extension will mean that the number of beneficiaries (that is those with easy access to the portable water) will be ~5,000 for the three communities¹⁷.

¹⁵ The CIS was approved by Eni Ghana in November 2017.

¹⁶ 'Interventions' are essentially projects or actions.

¹⁷ This is not a larger number of beneficiaries than previously planned. The planned project extension will mean that the number of actual potable water users should match the number of intended beneficiaries.

Offshore Cape Three Points

In a meeting between the IESC and WBC members, one of the members (a nurse) provided anecdotal information that there had been a decline in water-related illnesses, such as diarrhoea, in (old) Bakanta (where most people use the potable water) compared to Sanzule. Work to extend the network was expected to be underway soon after the May monitoring visit.

During the WBC meeting three challenges were discussed:

- Strains affecting the current method for financing the project (due in part to limited use of the potable water in Sanzule);
- 'Difficulties' in purchasing chemicals used to treat water, partly due to shortfall in expected income, but necessary materials were always purchased in the end thus avoiding any significant breakdown in water quality; and
- Occasional operator-induced episodes of lower water quality arising from mistakes/lack of knowledge and skills.

Despite these challenges, both the quantity and quality of the delivered water was acceptable to community members and the water is used extensively in (old) Bakanta and Krisan. Eni Ghana is implementing the following targeted actions to try to assist WBC to manage the project more effectively: opening a WBC bank account and improving the hiring procedure for operators. The IESC recommends that Eni Ghana continues to work closely with the WBC to improve the levy collection/project cash flow and ability of operators to perform their tasks effectively.



Photo 1: Treatment Facility: Sanzule



Photo 2: Fetching point with 3 taps: Sanzule

The CIS intervention on water supply and sanitation includes, "...a possible malaria prevention intervention". The potable water supply project as seen by the IESC does not have a malaria prevention component. However, the IESC understands that a health awareness campaign is planned, including a focus on malaria, as part of implementing the Community Health Management Plan (see Section 9.2).

The educational project is not as advanced as the water supply project and has a planned duration of two years. There will be the following beneficiaries: 40 teachers and 1,200 pupils in the public schools in all DAOI communities.

Essentially, the educational project consists of two components:

- Improvements to schools and related infrastructure; and
- Capacity-building for school staff.

Offshore Cape Three Points

Regarding the 'schools infrastructure' component, procurement processes are in progress which will lead to the awarding one or more contracts for *inter alia* construction of staff rooms, construction of toilet facilities and supply of white marker boards.

A contractor, Teach for Ghana (NGO), has been commissioned for the capacity-building component (schools leadership development, training of teachers as well as the provision of teaching assistance to teachers). Eight teaching fellows will be placed into the schools and key 2019 milestones are:

- Recruitment activities: by the end of May;
- Institute training: by the end of July;
- Community entry: by the end of August; and
- Placement of 8 teaching fellows in schools: by the end of September.

Both the community health awareness campaigns and the education project are mechanisms chosen by Eni Ghana to deliver the health and education components of the Livelihood Restoration Transitional Support 'package'. Originally, these two components were to be targeted at the PAPs only, but now there is a broader set of beneficiaries.

During the IESC monitoring visit, the IESC met with a specialist from Eni Milan who was working with the SLC team to initiate implementation of the CIS. He confirmed that there was only a single implementation plan due to the need to ensure synergies and avoid overlap/duplication. The CIS is regarded by Eni Ghana as an integrated project with two key components:

- Quality of Life (with a focus on the contribution of new or improved social and physical infrastructure) with the Ellembele District Assembly as the key implementing partner; and
- Economic diversification (focus on improving livelihoods and building sustainable businesses) with the Ministry of Agriculture (Extension Services) and the National Board for Small-Scale Industries as key implementing partners.

A phased approach is envisaged until end 2021:

- Projects/activities able to create quick results, that is within 1 to 2 years from start (for example, additional potable water supply projects); and
- Projects/activities that will form a basis for additional projects/activities beyond 2021.

A project document for the post 2021 phase is currently being prepared.

Of note, are two aspects of CIS implementation; first, additional projects following on from the 'pilot' QIPs (see above), and lessons learnt, will be an integral part of CIS implementation in the future. Secondly, certain specific projects/activities will focus on PAPs and vulnerable people/groups. In previous monitoring visit reports, the IESC has expressed concern about the implications of the Eni Ghana decision not to implement certain health and education measures, originally planned for delivery to the PAPs as part of the Livelihood Transitional Support 'package' prior to the initiation of the LRP Support Services, but instead to design and implement health/education measures that would have a wider set of beneficiaries. The intention to focus certain projects/activities on PAPs and vulnerable people/groups, in addition to the support they will receive from the LRP Support Services, will serve to redress the balance in terms of the relative support provided to PAPs and non-PAPs.

6.5 Cumulative impacts and influx

ESAP line 5 states '*Eni Ghana will report on their best efforts to engage other developers, local institutions and government, and other stakeholders in designing coherent management strategies to mitigate cumulative impacts.*'

Offshore Cape Three Points**6.5.1 Cumulative impacts**

In previous monitoring reports the IESC has reported Eni Ghana's constraints, acting as a single operator in the region, to effectively influence others/manage cumulative impacts. Consequently, it requested support from the WBG to facilitate the establishment of a multi-stakeholder platform and to support the stakeholders on the identification of a joint management and action plan. As described in the IESC's September 2018 monitoring visit report, a workshop (6-7 June 2018), hosted by WBG, was held at the WBG Office in Accra with the title, 'Roundtable on Cumulative Impact Co-Management for Oil and Gas Operations'. The participants included the Petroleum Commission (PC), the Environmental Protection Agency (EPA), Ghana National Petroleum Corporation (GNPC), Fisheries Commission, Ghana National Gas Company (GNGC), Ministry of Energy, Eni Ghana, Vitol, Tullow, Kosmos, and World Bank/IFC). A Steering Committee was formed led by the Petroleum Commission and EPA and comprising representatives of the Operators, and GNPC. Subsequently, the first Steering Committee meeting on Cumulative Impact Co-Management for Oil and Gas Operations was held on 26 February 2019 at the office of the World Bank in Accra. It was agreed that a Terms of Reference for work to establish a Multi-Stakeholder Forum would be issued, via an international tendering process, to interested consultants with a view to the selected consultants beginning work as soon as possible. IFC is acting on behalf of the Steering Committee to manage this process. The Terms of Reference was issued in late April 2019 although a consultant had not been commissioned at the time of the IESC site visit.

Eni Ghana remains active, in joint efforts with WBG, to create a multi-stakeholder initiative to manage cumulative impacts, including influx impacts (see below).

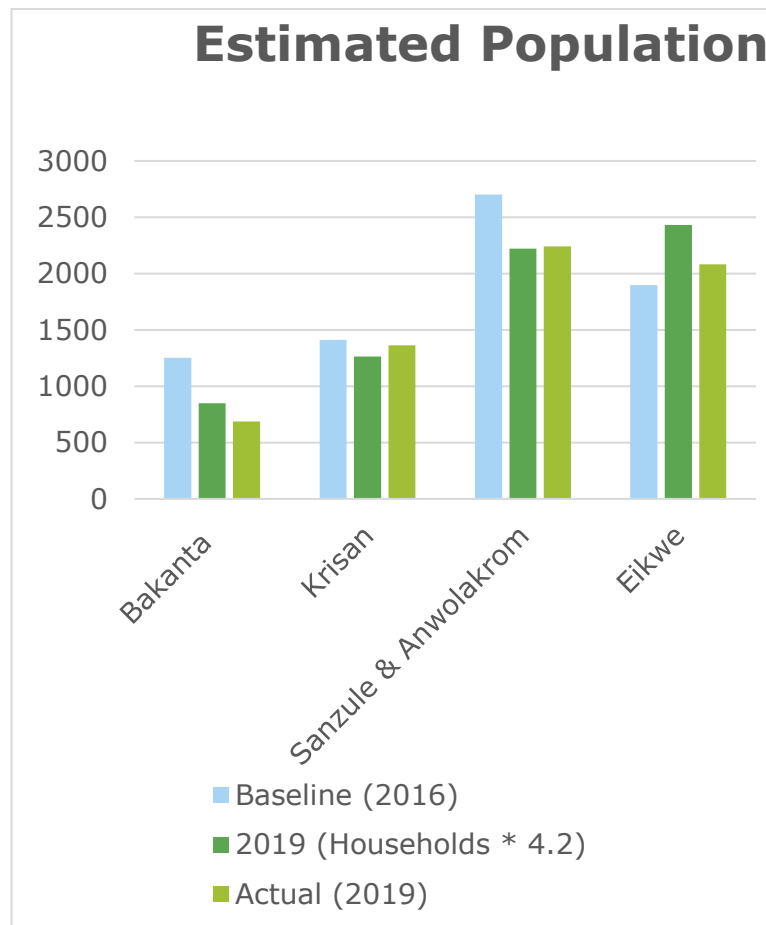
6.5.2 Influx in the DAoI

A key risk for the construction phase was the potential for influx into the DAoI settlements. A Production phase Influx Management Plan (IMP), effective 31 August 2018, is being implemented to manage influx within the DAoI.

The adoption of the adaptive approach to influx management requires a reliable means of deciding whether influx is occurring in the DAoI communities. This requires a baseline and 2016 was selected as the baseline year. Using Google Earth images, the number of households (based upon visible structures) in each village was determined. The number of households was multiplied by the average household size (4.2 individuals per household) to provide the baseline estimate.

To determine the current village populations, in February 2019, households in each village were counted, by fieldwork, and the resulting number of households again multiplied by 4.2 to provide an estimate of the current population of each village (and, therefore, of the DAoI area as whole). In addition, an interview was held with a household member to determine the total number of household members. Then, both sets of results were compared with the baseline year (2016). As the approaches to calculating the populations differ, comparison of all the results requires care - the results are at best indicative.

The chart in Figure 9 presents a comparison of the estimated baseline population (2016) with the estimated and the actual population as derived from the household survey interviews for 2019. There is no indication of an increase in population that could be due to influx, throughout the DAoI. In fact, for 3 of the 4 villages, the recorded population in 2019 was less than the estimated 2016 populations, except Eikwe, which recorded a population increase from 1,898 to 2,432.

Offshore Cape Three Points**Figure 9: Populations of the DAoI villages, 2016 and 2019**

A further analysis was made by Eni Ghana to determine if there was evidence of influx. Ellembele District Assembly made population projections for 2016 (based upon the 2010 census data and applying a growth rate of 2.3%). These projections provided an alternative (and not too dissimilar 2016 baseline). Comparison of this baseline with the 2019 populations, based upon counting households/actual household members, indicates declines in populations for 2 villages and an increase for the other 2 villages (see Table 2). However, this comparison, also, does not support a view that influx has occurred and is occurring in the DAoI overall as the total increase in the DAoI population is 231 or 3.8% over a 3-year period.

Table 2: DAoI villages: comparison of populations 2016 (estimated using 2010 census) and 2019 (household survey)

Village	Sanzule & Anwolakrom	Krisan	(Old) Bakanta	Eikwe	DAoI Total
2016 (census + projections)	2072	932	754	2354	6112
2019 (household survey)	2241	1362	687	2081	6371

Eni Ghana will continue to monitor populations annually using the household survey approach and, thus, will be able to make meaningful comparisons to track population changes in the DAoI. The results will inform decisions regarding influx and how to manage it within the scope of the Influx Management Plan or, as necessary, an amended version of this Plan.

Offshore Cape Three Points**6.6 Stakeholder engagement**

During the site visit, the IESC met with members of the following: Fisheries Coordinating Committee (FMCC) (inter-village); the Livelihood Restoration Working Group (LRWG) (Sanzule) and the WCB (inter-village) plus PAPs in Sanzule encountered during a visit to a range of sites used for income-generating activities. No negative comments were made about the stakeholder engagement work implemented by Eni Ghana. This experience reinforces previous encounters between the IESC and members of affected communities where negative statements about engagement activities were rarely made. Given that the construction phase is almost completed, it is possible now to look back over the construction phase and evaluate local-level stakeholder engagement performance (particularly, as this phase is the most likely project phase to cause problems and disquiet in local communities). Overall, Eni Ghana has expended considerable time and effort in engaging with local communities and it has done so with commitment and empathy, thus, providing a sound foundation for engagement activities going forward into the Production phase.

There will be a change of emphasis in the scope of engagement activities in the Production phase. There will be reduced emphasis on informing and consulting about the Project and the different and changing activities that occur. Production phase operations are relatively stable by comparison. Instead, affected community members will continue to move, at a faster pace, from being impact receptors to being recipients of potential benefits and being well placed to take advantage of opportunities created by the presence of the Project such as those created by implementing the CIS (see section 6.4 above) and the LR Support Service programme. The type of engagement will move from information disclosure and consultation toward participation/shared decision-making (of course, information disclosure and consultation is a key early component of participation/shared decision-making).

Within this change of emphasis and type/scope of engagement, some issues from the construction phase will remain, and certain Project actions will cause previously unknown impacts. Therefore, engagement in the Production phase will need to focus on issues such as:

- Fisheries-based livelihoods (maintaining and then improving livelihood status in a sustainable way by training and other capacity development initiatives independent of the CIS and LRP). The focus on fisheries-based livelihoods is warranted and important as demobilized workers return to fishing in a context where ability to make a living from fishing is facing significant challenges (see Section 7.4); and
- Generic HSE issues related to an operational gas facility, such as emergency situations.

Engagement with government agencies, at all scales, will continue as previously. However, more emphasis will be placed upon the government partners in CIS implementation (see section 6.5 above). Finally, the community-level Grievance Mechanism will not change as it is considered necessary for dealing with complaints arising from CIS and livelihood restoration implementation.

A SEP focused on the Production phase is in the final stage of preparation. [*Post-visit Note: the SEP was finalized and is included in the Project Q2 2019 Monitoring Report submitted to WBG*]

In its September 2018 monitoring report, the IESC recommended that Eni Ghana consider,

“finding a way to avoid this dissatisfaction (some members of the FMCC stating that their contribution to the Project was not recognized adequately by Eni Ghana) from becoming a serious concern that could threaten the viability of the FMCC.”

During the May 2019 monitoring visit, the IESC was informed that Eni Ghana had considered this issue and had decided not to take any specific additional actions to ‘recognize’ the FMCC members contribution.

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6.7 Community and worker grievance mechanisms

This section considers the following:

- Eni Ghana implementation of community and worker grievance mechanisms; and
- Contractor implementation of community and worker grievance mechanisms.

6.7.1 Eni Ghana Implementation of Community Grievance Mechanism

In its September 2018 monitoring report, the IESC states that, by March 2018, 17 grievances had been registered for 2018 (almost 50% of the total for the whole of 2017). These included 9 grievances related to labour issues in the workplace¹⁸ (reflecting the Q1 2018 labour unrest) and 4 related to the Fisheries Management Plan. Following the end of the period of labour unrest, the number of grievances registered per month reduced and, by the end of 2018, a total of 35 grievances had been registered. Figure 10 shows the grievance trend which overall demonstrates a fall in registered grievances over time with 3 distinct trend phases: relatively high numbers in Q1 2018, reduced and relatively stable trend until the beginning of Q3 2018 and then a relative stable, but lower-level of grievance registration from Q4 2018 almost to end of Q2 2019.

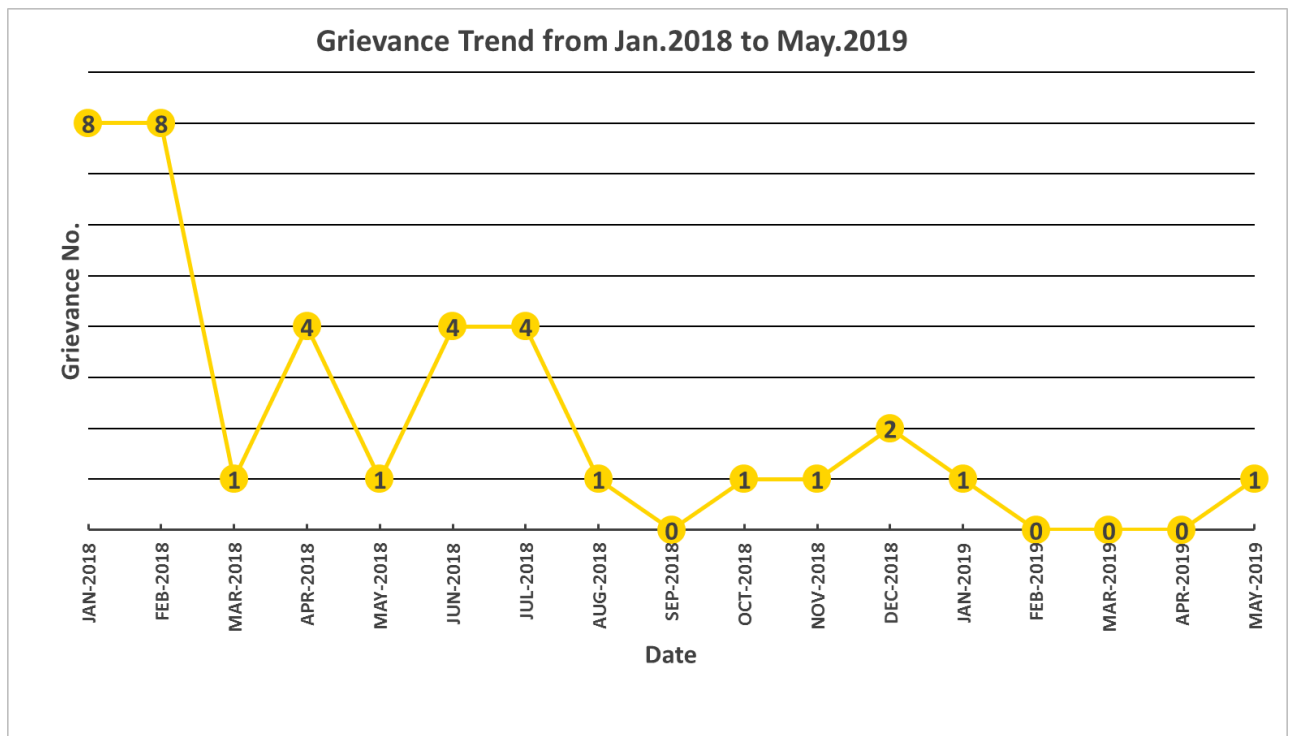


Figure 10: Grievances registered by Eni Ghana – period January 2018 to end May 2019

A breakdown of grievance types is shown in Table 3. The effect of the labour unrest over bonuses and other remuneration issues followed by grievances related to demobilisation has contributed to labour-related grievances being the dominant grievance type. However, it is noted that 15 grievances focus on livelihood issues as they are categorized as relating to the implementation of the LRP (Livelihood Restoration Plan) and the FMP (Fisheries Management Plan) respectively. Most of the ‘general’ category relates to complaints by suppliers about delayed payments by Eni Ghana’s contractors. All 2018 grievances had been closed out by the time of the IESC’s May 2019 monitoring visit.

To date (end May 2019), only 2 grievances were registered; both are open and relate to the FMP and specifically to complaints about net damage caused by a suspected submerged and hidden

¹⁸ Eni Ghana aggregates both community and worker grievances together for the purposes of a ‘global’ analysis of grievances.

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anchor or cable, in a location off the beach of Sanzule, which the local fishermen link to near shore Project-related activities which occurred in the past. Eni Ghana undertook a seabed survey and could not detect any anchor that might have caused the damage (the possibility of a cable being the cause of the damage arose after this survey); however, it did identify a rocky outcrop that may have been the cause of the net damage. The FMCC considered these findings and were not reassured. The FMCC proposed, then, that fishermen undertake their own investigation and report to Eni Ghana. Currently, Eni Ghana is considering a costing, received from the FMCC, for this work. This long-standing 'grievance' remains open, but both parties are working collaboratively to reach a resolution and then close-out.

Table 3: Breakdown by type of all grievances registered by Eni Ghana in 2018

<i>Grievance Category</i>	<i>Number received</i>
<i>General</i>	<i>9</i>
<i>Labor related</i>	<i>13</i>
<i>LRP</i>	<i>6</i>
<i>FMP</i>	<i>7</i>

Of note, Eni Ghana undertook a 'satisfaction' survey, including all grievances registered in 2018, to measure the satisfaction of the complainants with respect to the process of resolving their grievances and the outcome/s of the process. Results are shown in Figure 11 below. It can be seen, perhaps unsurprisingly, that satisfaction with outcomes is lower than satisfaction with process. However, it is noteworthy that there was unanimous satisfaction regarding the process.

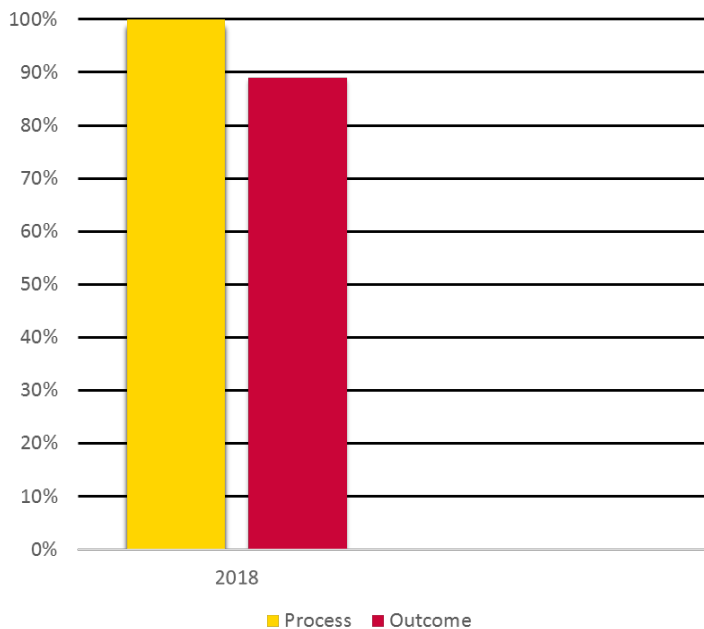


Figure 11: Satisfaction survey results: 2018 grievances

Arising from this survey, Eni Ghana intends to:

- Implement continuous training of contractors and local people to understand the Grievance Mechanism and how it works; and
- Rehabilitate or replace complaint boxes and sign posts/notices (at ORF, in Project Affected Communities and at Technoserve Office).

Offshore Cape Three Points**6.7.2 Contractor Implementation of Community and Worker Grievance Mechanisms**

Contractors have been audited regularly by the SLC department and the operation of contractors, in terms of both community and worker grievance mechanisms, is a feature of these audits. Transition into the Production phase is expected to require fewer contracted workers and reduced impact on communities; however, the audit programme will continue into the Production phase to ensure that the mechanisms are working effectively. As the Project moves further into the transition between construction and production, new contractors are appointed. Eni Ghana ensures that all new contractors are aware of the importance of the grievance mechanisms and Eni Ghana's requirements for receiving, recording and reporting grievances.

6.8 Takoradi to Tema Interconnecting Project

In its September 2018 monitoring report, the IESC highlighted the potential risk to members of the community living adjacent to the existing gas metering facility at Tema. More specifically, Quantitative Risk Assessments prepared separately by Eni Ghana and WAPCo predicted a risk to members of the community at certain operating pressures, with a greater risk at the higher operating pressures which in turn could prompt the relocation of dwellings due to safety concerns. At the time, the strategy was to operate at the lowest possible pressures to avoid the need for relocation of neighbouring residents although finalisation of QRA studies, to determine acceptable operating pressures, was ongoing. However, since the previous IESC monitoring report, there has been a significant reduction in the scope of the Tema upgrade.

6.8.1 Tema Scope Optimisation and operating philosophy

In March 2019, the original scope of works at Tema was discontinued due to descoping (reduction in the scope) of the works. The descoping was prompted by WAPCo because the original scope required resettlement and an extended period of shutdown for the plant that would have severely disrupted the supply of gas.

A revised (reduced) scope was close to being finalised at the time of the May 2019 monitoring visit. The new scope will be limited to installation and commissioning of additional equipment to connect at existing tie-in points and to increase the plant capacity up to 235 MMscfd. The design will include use of a high-integrity pressure protection system (HIPPS) thus assuring the allowable maximum operating pressures cannot be exceeded.

Importantly, Eni Ghana, in discussion with WAPCo, has agreed that the facility can be operated at 45 barg (max), which notably is below the current allowable operating pressure. The 45 barg pressure is towards the lower end of the operating pressures considered during the QRA studies and therefore is likely to reduce the risk to members of the community living adjacent to the site boundary. In this regard, the final QRA prepared by Eni Ghana¹⁹, made available since the September 2018 site visit, concludes a small number of properties immediately south of the facility may require relocation even at the 35bar operating pressure and the volume of gas under the original TTIP scope.

As stated above, finalisation of the descoping was still underway at the time of the visit. Following finalisation of the scope, a further QRA study, based on an agreed design, will need to assess the risk to people living in close proximity of the facility. The findings of this study, and in particular the tolerability of risk to community members will be critical in determining the need or otherwise to relocate people. Thus, it is recommended that the revised QRA, based on the reduced scope, is shared with Lenders/the IESC when available in September 2019.

¹⁹ WAPCo TEMA – Quantitative Risk Assessment, Revision 2, 25/10/2018 (final issue). Final issue based on the original scope of works that has since been superseded.

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In its September 2018 monitoring report, the IESC highlighted that Eni Ghana is of the firm belief it will not manage the relocation of any resettlement (if required) because these facilities will be owned and operated by a third party, and furthermore, Eni Ghana's responsibility ends at the point of offtake to the GNGC gas supply pipeline at Sanzule. In the event that relocation is necessary, Eni Ghana's responsibilities including Eni Ghana's ability to influence WAPCo, in discussion with the WBG, should be clarified, with the possible aim that Eni Ghana should use best endeavours to influence any process of relocation of properties and people required by WAPCo, such that the requirements of PS5 are applied.

6.9 Management of Change

Within earlier monitoring reports, the IESC has described several design changes, such as erection of fencing, post lay trenching of the GES and infill wells, with significant E&S implications that have triggered the MoC Procedure. During the May 2019 monitoring visit, Eni Ghana reported no ongoing or foreseeable changes with significant E&S implications.

6.10 Operational readiness

Under Item 1 of the ESAP, Eni Ghana with support from Vitol is required to, *develop a construction/ development phase Environmental, Social, Health Management Plan (ESHMP) and the relevant management plans and programs in advance of development drilling and construction, followed by a production/operations ESHMP which will be developed before first oil, with gas-related elements integrated as needed before first gas.* (emphasis added by IESC).

In its previous report, the IESC made the following minor observation:

- The revised ESHMP refers to the Offshore Hydrotest Disposal Plan despite hydrotesting being completed prior to reissue of the ESHMP. The IESC notes that the ESHMP remains unchanged since the IESC made its observation and the ESHMP still refers to the need for a Hydrotest Plan. This minor inaccuracy should be addressed in a revised version of the ESHMP.

The correction can be made during periodic management review of the ESHMP.

6.11 Gas export sealine shore line crossing

The IESC visited the location of the shoreline crossing where the pipeline had previously been exposed on the beach at low tide. The IESC Q4 2018 monitoring report confirms the successful post-lay trenching of the exposed pipeline. Site observations, conducted by the IESC, confirmed that there was no evidence of the pipeline or activities associated with post-lay trenching on the beach (Appendix 5 Photo 5). The beach has been reinstated to its natural profile and entanglement hazards, capable of posing a threat to nesting turtles, have been removed. This item is therefore considered closed.

The IESC also notes Eni Ghana's beach clean-up efforts, working together with local communities to reduce waste materials washed up on the beach. This also has potential benefits for turtles as well as aesthetic benefits.

6.12 Environmental monitoring

The IESC discussed environmental monitoring with ESL. ESL is responsible for onshore and offshore environmental monitoring (excluding biodiversity monitoring).

6.12.1 Offshore Monitoring

A second offshore survey was to be conducted by Technoambiente under contract to ESL in November 2018. At the time of May 2019 monitoring visit, the monitoring report was not

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finalised or available for IESC review, however it was expected to be provided with the forthcoming Q2 2019 Quarterly Monitoring Report. (*Post visit note: the offshore monitoring report has been attached to the Q2, 2019 QMR*).

6.12.2 Onshore monitoring*Air quality*

In its September 2018 monitoring report the IESC noted that the air monitoring location at the ORF site is located upwind of the main emission sources (power generating and compressor units) and recommended a review the location of all ambient air quality sampling points in the context of significant gas production emissions, the wind direction and the predicted air quality presented in the Air Dispersion Modelling Study for the ORF Operation Phase²⁰. There has been no further consideration or revision of the monitoring locations and this recommendation has therefore been repeated.

Noise

During the September 2018 monitoring visit, the IESC visited the village of Anwalakrom to confirm noise from the operating compressors at the ORF was not audible. However, at the time of the visit the compressors had been shut down and therefore it was not possible for the IESC to obtain a sense of the extent of sound propagation. In May 2019 the IESC revisited Anwalakrom when the compressors were working and can confirm, in line with modelling studies performed, that noise from the compressors is not audible above wave/other noise sources in Anwalakrom.

6.13 Closure of earlier IESC findings

The IESC's September 2018 monitoring visit made 33 findings, many of which had recommended corrective actions. Where possible the IESC has revisited these findings within this report and described progress made towards the closure of earlier findings.

The 'open' issues identified in the previous monitoring visits (February 2017, September 2017 and March 2018) are tabulated in Appendix 4 with an indication of the current status of each issue provided by the IESC following the September 2018 monitoring visit. Previously 'closed' items have been removed from Appendix 4.

The IESC was unable to revisit certain findings, in part because it did not revisit certain Project facilities, such as the FPSO and TTIP stations. In such instances, the status is typically categorised as 'pending' or 'superseded'.

It is the IESC's opinion that all significant²¹ actions are fully closed or superseded with the exception of the following 'Moderate' and 'High' significance items taken from the February (Row xxx 2/17), September 2017 (Row xxx 9/17), March 2018 (Row xxx 3\18) and September 2018 (row xxx9/18) IESC monitoring reports:

- Row 026_9/18 Community conservation programme – programme for community conservation, as proposed by GWS, is unclear (see Section 11.8.3, Additional Conservation Actions);
- Row 27_09/18 Vulture conservation programme – details of the conservation programme remain unclear (see Section 11.8.3, Additional Conservation Actions)
- Row 033_09/18 Identification and Assessment of Potential No Net Loss Options – definition of option remains an overdue issue (see Section 11.11 No Net Loss of Natural Habitats);
- Row 023_03/18 Project Security Management Plan - Following the recent labour unrest and the IESC finding that offshore security provisions are not effective in terms of preventing

²⁰ Ref. rep ms hse 013 eni Ghana – "Air Dispersion Modelling Study for ORF Operation Phase. Final ORF Project Design

²¹ Significant in this context means those issues assigned a High or Moderate significance rating.

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canoe (fishermen) incursions into the FPSO exclusion zone, the Project SMP requires revision (see Section 9.3.3, Offshore Security and the Exclusion Zones);

- Row 024_03/18 Fishing vessel incursions – incursions continue to occur on a daily basis (see Section 9.3.3, Offshore Security and the Exclusion Zones);
- Row 021 2/17 - Contractor management – The Project SMP has been revised and approved by Eni Ghana and it includes the 'minimum requirements'; however, it is being updated and revised again; therefore, this remains an OPEN (re-opened) action (see Section 6.3.2. Security); and
- Row 019 9/17 - Contractor Management (security); Appendix Q to be updated²² to reflect the approved and 'signed off' Security Management Plan. Once it is updated and revised, Appendix Q to be issued with all ITTs/model contracts to prospective contractors (with a proviso that a contractor can seek Eni Ghana approval that security requirements are not applicable to its operations) (See section 6.3.2, Security).

For the 'open' items listed above, the IESC acknowledges that progress is being made towards closure. Minor items are not captured in the list but are detailed in Appendix 4.

²² To some extent superseded because the Project SMP was updated, however Project SMP requires further revision which will then need to be communicated to contractors.

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Table 4: Summary of Findings, PS1

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
001_5/19	Community investment (potable water supply QIP)	Development of more robust management of the potable water supply project	Construction and Production	PS1	Eni Ghana to continue to work closely with the WBC to improve the levy collection/project cash flow and ability of operators to perform their tasks effectively.	Minor
002_5/19	TTIP QRA (revised scope)	The potential need to relocate community members living near the Tema RMS cannot be ruled out at this stage. Pending preparation of a new QRA for the revised plant design/operating philosophy.	Production	PS1, PS4	In the event that relocation is required, Eni Ghana's responsibility and ability to influence any future relocation needs to be clarified and agreed between Eni Ghana and the WBG.	Minor (increasing if resettlement is required)
003_5/19	Operational readiness	The ESHMP refers to the Offshore Hydrotest Disposal Plan despite hydrotesting being completed prior to reissue of the ESHMP. Other socio-economic plans referenced in the ESMHP are yet to be updated for the Production phase.	Production	PS1	Eni Ghana should confirm all hydrotesting is complete, and if this is the case, remove the Offshore Hydrotest Disposal Plan from the ESHMP during periodic management review of the ESHMP. The Security Management Plan and the Stakeholder Engagement Plan to be agreed with WBG and approved/signed off by Eni Ghana as soon as possible (see also 010_5/19)	Minor
004_5/19	T-cards	The T-card system for visitors at the temporary accommodation camp did not accurately reflect visitor presence on site/departure times.	Construction and Production	PS1/PS2	The use of T-cards at the site should be reviewed with consideration of further training for security personnel and provision of additional T-cards to allow for peak visitor numbers.	Minor
005_5/19	Environmental monitoring sampling points	In its previous monitoring report, the IESC highlighted an ambient air sampling point located upwind of the main emissions sources and therefore likely to be of little use in monitoring any	Production	PS1	The location of sampling points for Production phase monitoring should be reviewed and revised as necessary based on operational emission sources, sensitive	Moderate

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ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
		impacts to ambient air quality originating from the Project. The monitoring locations have not been revised/supplemented.			receptors and zones of maximum impact identified in predictive air quality studies.	

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7. PERFORMANCE STANDARD 2: LABOR AND WORKING CONDITIONS

7.1 Introduction

There are no outstanding ESAP items that refer to labour and working conditions.

During this monitoring visit, the IESC learnt that the construction phase was to be extended until end of August 2019 (perhaps even longer if the wet season causes difficulties in completing the works) and therefore, the demobilisation process would occur over a longer period than originally envisaged and consequently would be more gradual.

7.2 Management of labour and working conditions

In 2018, the following two key plans were updated for the Production phase:

- The Workers Management Plan²³;
- The Recruitment, Employment and Training Plan²⁴.

The two Plans are applicable to both Eni Ghana, contractors and main suppliers. The IESC understands that the Local Hiring Procedure²⁵ (SUST-PRO-008) remains in place and is unchanged.

In addition, as discussed in the IESC's September 2018 monitoring report, Eni Ghana and TechnipFMC prepared a 'Demobilization Plan for Ghanaian Workers'. This plan has been implemented to manage worker demobilization (see Section 7.4 below).

7.3 Local labour disputes

7.3.1 Context and Recent Situation

During the September 2018 monitoring visit, the IESC met with 'human resources' representatives of TechnipFMC, Consar and Orsam (met also in March 2018) plus Eni Ghana's Community Labour Relations Officer. The combined view of these interviewees was that labour relations had improved considerably since March 2018 (a time of labour disputes and work stoppages) and that demobilisation had been progressing with very limited adverse reaction/s.

Figure 12 presents a graph showing the number of grievances escalated to Eni Ghana and the number of strikes, by month, over the period January 2018 to May 2019 (grievances are managed by each contractor and only escalated to Eni Ghana under certain circumstances). It can be seen that the numbers of both labour-related grievances and strikes declined in the first half of 2018 apart from a spike in grievances in June. Since June 2018 there have been no grievances escalated to Eni Ghana and no strikes.

During the September 2018 monitoring visit, the IESC was informed that there were no open labour-related grievances and during this IESC monitoring visit, the Community Labour Relations Officer stated that no worker grievances were escalated to Eni Ghana since July 2018. This is a noteworthy achievement given the previous labour disputes and the programme of worker demobilisation that has been proceeding since the end of Q1 2018.

²³ Document reference: SUST-PLAN-003 rev01 (September 2017).

²⁴ Document reference: SUST-PLAN-001 rev01 (September 2017).

²⁵ Document reference: SUST-PRO-008.

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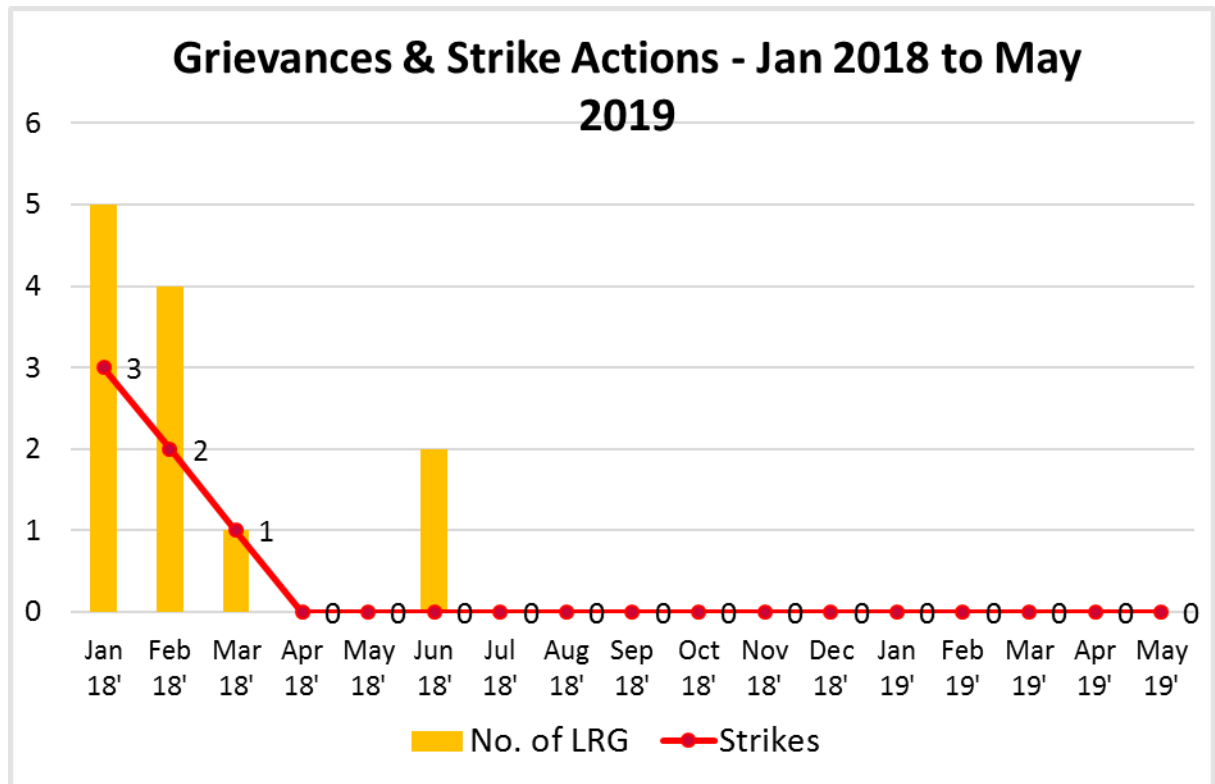


Figure 12: Registered grievances and strike actions: January 2018 to May 2019

As previous IESC monitoring reports state, uncertainty amongst sections of the workforce regarding the payment of end-of-service bonuses was a key issue in the Q1 2018 labour unrest.

Eni Ghana and the main contractors have worked together to bring greater coherence to the allocation and then payment of bonuses and to explain to workers why there are differences between certain workers (for example, due to specific legally-binding contractual conditions between contractors and their workers). The decision by Eni Ghana to pay an “appreciation” bonus also contributed to the creation and maintenance of improved labour relations.

Eni Ghana undertook a Workers’ Grievance Audit toward the end of 2018. The key findings are summarized below:

- Contractors’ management teams do respond to worker grievances promptly;
- Complainants are mostly unwilling to accept management’s initial responses or proposed actions to resolve grievances; and
- Complaints related to salary increments, bonuses and end-of-employment benefits took longer to resolve due to the processes in place under Collective Bargaining Agreements.

The audit report presents several recommendations to improve grievance handling and to make workers aware of how the grievance procedure operates.

7.4 Demobilisation

Since September 2018, 712 workers were demobilised (as of mid-May 2019) giving a cumulative total of 1376. To date 460 of the demobilised workers are from the DAoI communities (some of whom have been re-engaged due to the extension of construction work to the end of August). As of mid-May 2019, there were 459 workers remaining at the ORF site – almost entirely Consar workers or workers from Consar sub-contractors - with only very small numbers from other contractors. Demobilisation is expected to be completed by end August 2019.

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The mechanisms for managing demobilisation, such as the sign-off for final payments and monthly reporting by contractors to Eni Ghana have continued. Also, Eni Ghana implemented a labour audit (with a report prepared in early 2019) that provided an additional 'check' to ensure that demobilisation was occurring according to the plan requirements.

7.4.1 Demobilised workers from the DAoI communities

In March 2019, Eni Ghana implemented a survey of 112 (from a target sample of 120) of the demobilised DAoI workers. The target of 120 was based on a sample of 30 from each of the 4 communities. A report analysing the results exists in draft form but has not been seen by the IESC. However, the IESC was informed by the Community Labour Relations Officer that:

- All respondents confirmed that they had received all payments to them;
- 10% were eligible for LR 'Support Services' (see section 10.2.4) and were focusing their efforts on managing their selected options to obtain sustainable income streams;
- Most were returning to their previous means of livelihood, mainly fishing and farming;
- A few were attempting to generate income by trying new livelihood options in their communities; and
- Some have left the villages and were utilising new skills elsewhere in Ghana or abroad (especially in the Gulf States).

Figure 13 shows the results from the survey with reference to the means of livelihood being followed by DAoI workers post-demobilisation and, also, the livelihoods they followed before they were employed at the Project. A comparison between the two periods provides some interesting, albeit indicative data, as follows:

- Post-demobilisation no worker states that they have no work (before gaining Project employment, just over 31% stated that they had no work);
- Fishing is attracting demobilised workers with 43% stating that fishing is a current source of livelihood compared to the pre-employment figure of 27% - an increase of 16%;
- Fishing and 'artisanship' are the two favoured means of livelihood (the number following artisan occupations has increased by 4%); and
- Other, less common livelihood options, such as trading, farming, formal employment and 'others' have all seen small, but noticeable, increases in numbers post-mobilisation.

Overall, the DAoI rural economy has become more diversified, but with artisan occupations and fishing dominating with 76% of the surveyed workers following one of these 2 means of livelihood. The other noticeable change has been the elimination of individuals claiming they had 'no work'.

Eni Ghana intends to repeat this survey, which the IESC strongly supports as the data will be useful for a range of Project initiatives, for example, CIS implementation. The target sample of 120 and a population of 496 give an error margin of 8% at a 95% confidence level²⁶. Although the error margin is relatively high (5% would be more in line with general practice but would increase the sample to ~220) it may be considered sufficient for Project needs. However, the IESC recommends that Eni Ghana considers the sampling parameters to be used, in the future, in the context of the needs of the potential users of the data.

²⁶ With an error margin of 10%, and 50% of a sample selecting the same response to a question, then it is possible to be sure that if the question was asked of the entire population, between 40% (50-10) and 60% (50+10) would have selected that response. The confidence level, such as 95%, indicates how sure it is possible to be that the margin of error is valid.

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Also, it is recommended that the scope of the survey be expanded to consider livelihood/income status of the demobilised workers and their households as well as their occupations and means of livelihood.

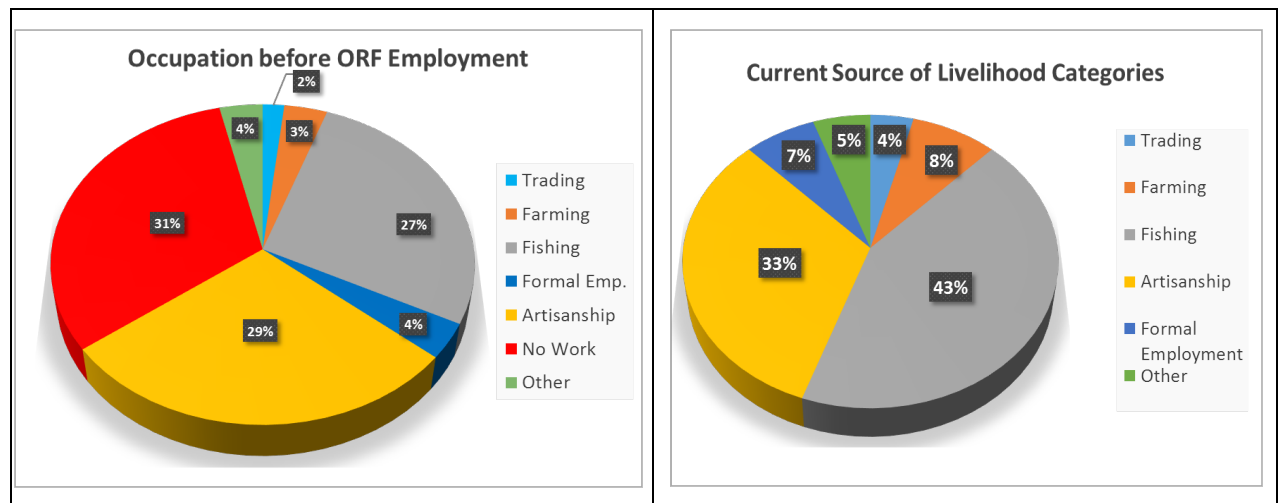


Figure 13: DAoI Workers: occupations/means of livelihood before and after ORF employment

7.5 Local recruitment for Production phase

As is normal for oil and gas facilities, Production phase employment opportunities are significantly lower than for the construction phase. Most jobs are skilled or professional/managerial. These employee profiles do not match the local labour market and many such jobs are filled by non-local people. However, there is a need for unskilled and semi-skilled labour. Local (DAoI) people are being/will be recruited using the procedure in the Recruitment, Employment and Training Plan (via Community Recruitment Committees). The following job opportunities for local people are expected:

- Eni Ghana: 8 drivers and 70% (mostly to be women) of the estimated number of workers needed for the ORF managers' Accommodation Camp;
- Spie Oil and Gas (ORF maintenance contractor): 14 jobs; and
- G4S (ORF Security): majority of the 53 jobs.

It is likely that the number of jobs for locals will be approximately 15-20% of the peak number of locals employed during the construction phase. However, it is likely that several of these posts will be filled by people already employed by the Project. These are not new additional jobs; they are jobs that will be extended. There may be more opportunities than previously during construction, proportionally, for women because of the number of Accommodation Camp jobs.

7.6 Workers' accommodation

7.6.1 Accommodation Policy

The September 2017 Workers' Management Plan contains clear commitments to apply the IFC/EBRD (2009) *Guidelines on Worker Accommodation* when siting, designing, constructing and managing workers' accommodation. In the first IESC monitoring visit report (February 2017), it was recommended that Eni Ghana prepare an accommodation policy that provides a set of high-level commitments in terms of provision of accommodation to workers. The IESC notes that this policy has not been prepared. This situation is mentioned in all subsequent IESC monitoring reports from February 2017 (See Appendix 4 Table 2 item 010 9/17). The ORF managers' Accommodation Camp is almost completed; however, further accommodation may be required in

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the future, for example, if the ORF requires extending and/or upgrading. Thus, preparation of the recommended accommodation policy remains a worthwhile aim.

During the May 2019 monitoring visit the ORF managers' Accommodation Camp was undergoing construction. The ongoing construction activities prevented a detailed assessment against the afore mentioned guidelines. However, observations made indicate the permanent accommodation will be built to a better standard than the temporary accommodation (more spacious single occupancy buildings with separate rooms and bathrooms built using good quality building materials) and therefore the IESC does not have any concerns relating to the accommodation standards. The permanent accommodation will be revisited to confirm compliance with applicable guidance during the next IESC monitoring visit.

7.7 Occupational health and safety

The IESC reiterates its findings reported in previous monitoring visit reports that Eni Ghana and its main contractors have robust and compatible HSE and SLC Management Systems in place. Eni Ghana works closely with its contractors to ensure a consistent approach and standard of H&S management across of the Project. There is a strong H&S culture which is reflected in positive Project H&S metrics.

See also Section 6.3.4 concerning Contractor's HSE performance.

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Table 5: Summary of Findings, PS2

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
006_5/19	Monitoring of demobilised workers	Reintegration of workforce	Production	PS2	Eni Ghana to: <ul style="list-style-type: none"> a) expand the scope of the survey to include livelihood/income status of the demobilised workers and their households as well as their occupations and means of livelihood; and b) re-consider the survey sampling parameters to be used, in the future, in the context of the needs of the potential users of the data 	Minor

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8. PERFORMANCE STANDARD 3: RESOURCE EFFICIENCY AND POLLUTION PREVENTION

This section considers the management and monitoring of key environmental impacts associated with the Project and the Project's commitments to the prevention of pollution and resource efficiency. Key aspects relevant to the Project include:

- Air quality;
- Surface and groundwater;
- Waste management; and
- Greenhouse gas emissions.

These are discussed below. Other environmental aspects have been considered in previous monitoring visits/reports and are not revisited in this report.

8.1 Air quality

The IESC highlights the need to review ambient air quality sampling locations following the onset of gas production (see Section 6.12, Environmental Monitoring and Appendix 4 Table 1. row 008_09/18).

8.2 Surface and groundwater

8.2.1 Onshore monitoring

ESL monitors surface water quality as follows:

- Monthly parameters (in situ): pH, water temperature, salinity, resistivity, oxidation reduction potential (ORP), turbidity, dissolved oxygen, total dissolved solids (TDS) and electrical conductivity—using a multiparameter probe;
- Quarterly parameters (laboratory analysis): Monthly + BOD, COD, TSS, Nutrients (Orthophosphate, Silicate, Nitrate, Ammonia Nitrogen), Heavy metals, Microbiology (TC, FC), Chlorophyll a, Oil & Grease and Total Petroleum Hydrocarbons (TPH); and
- Surface water levels using 5 water gauges.

Surface water quality is generally found to meet applicable standards with the exception of some exceedances of dissolved solids, electrical conductivity and turbidity (TSS). Water levels to date are considered by ESL to be unaffected by the Project.

ESL monitors groundwater from 6 locations, although one sampling location at Anwolakrom was a hand dug well that has now collapsed. Conductivity typically exceeds EPA limits for two sampling locations situated close to the beach, most likely as a result of saline intrusion.

ESL does not monitor groundwater for its suitability for drinking; the IESC understands monitoring against potable water standards is the responsibility of the SLC department as reported in the IESC's Q2, 2018 Quarterly Monitoring Report. The IESC has received conflicting information concerning the use of the old water well in Sanzule, following the provision of the pilot potable water supply project, under CIS implementation (see Section 6.5). During the most recent visit, the IESC was informed that the wells in Sanzule were being used (in addition to/instead of alternative supplies), and on that basis the IESC reiterates its early finding that the analysis of the water quality used for drinking be carried out for community wells as per the Environmental Monitoring Program for Production phase of OCTP Phase Environmental Monitoring Programme, dated 13 March 2018.

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The IESC has previously highlighted exceedances against the WBG and Ghana EPA effluent standards stated in quarterly monitoring reports following monitoring of liquid effluents from the Maersk Voyager and the FPSO sewage treatment plant (STP) discharges. Parameters for which exceedances occurred include BOD₅, COD, total nitrogen and total phosphorous at the Maersk Voyager, and exceedances of total coliform bacteria at the FPSO. The exceedances were reportedly due to malfunctioning STPs.

During the September 2018 monitoring visit, the IESC was informed that an external consultant has been commissioned to investigate the poor performance of the STPs and several recommendations have subsequently been made. As a result of the consultant's recommendations, the STP on board the Maersk Explorer drillship is to be upgraded over a 2-month period. A corrective programme is also in place for the FPSO that includes quarterly inspections to determine the effectiveness of corrective actions.

Below a status update is provided for both facilities.

Drill ship (Maersk Voyager)

Maersk Drilling (operator of the Drill Ship) considered a number of options to improve performance of the STP and concluded that addition of a bioreactor was the preferred option in terms of anticipated performance and the ability for the existing plant to operate continually throughout an upgrade. A number of third-party delays have slowed progress; however, the results of the new treatment plant should be apparent in the near future. It should be noted that drilling activities were due to cease shortly after the IESC's May 2019 site visit and the benefits of the upgraded STP will be recognised at the drill ships future locations.

FPSO

Several modifications have been made to the FPSO sewage treatment practices in light of the recommendations made previously by the IESC. Of particular note, the FPSO has two STPs, one old and one that is new. All waste water is currently being diverted and processed via the new STP. Review of the Q1 2019 Quarterly Monitoring Report (QMR) shows total coliform bacteria as zero although other parameters remain high.

Yinson (operator of the FPSO) stated it considered that the STP was functioning well and questioned the applicability of limits stated in the Eni Ghana QMRs. Limit values specified in the QMR are provided below.

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Table 6: Waste water limit values for STPs (extracted from the Q1 2019 QMR)

Sample Frequency (e.g. quarterly)	Parameter	WBG maximum levels	Performance in WBG units annual average	Ghana Regulatory maximum levels
Quarterly	pH	6-9		6--9
	Biochemical oxygen demand (BOD5)	30-mg/L	mg/L	50
	Chemical oxygen demand (COD)	125-mg/L	mg/L	250
	Oil and grease	10-mg/L	mg/L	5
	Total suspended solids (TSS)	50-mg/L	mg/L	-
	Total coliform bacteria, Most Probable Number (MPN) or plate count (PC)	400-/100-ml	#-/100-ml	400
	Total Nitrogen	10-mg/L	mg/L	-
	Total Phosphorous	2-mg/L	mg/L	2

The WBG EHS Guidelines for Offshore Oil and Gas Development (2015) requires that:

Sewage: Gray and black water from showers, toilets, and kitchen facilities should be treated in an appropriate on-site marine sanitary treatment unit in compliance with International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78 requirements.

MARPOL in turn states that discharge of sewage to sea is prohibited, except when ship has an approved operational sewage treatment plant which has been certified by the [relevant] Administration to meet the operational requirements referred to in Regulation 9.1.1 of this Annex²⁷ [Annex VI]

The IESC is not clear on the origin of the Ghanaian standards quoted, however agrees they may be more appropriate for inland or nearshore waters. It is recommended that the limit values used in the QMRs are reviewed and, in particular, standards applicable to the offshore environment confirmed with the Ghana EPA/other authorities with reference to MARPOL 73/78 as applicable. The IESC acknowledges that the STP on the FPSO has a certificate confirming it meets with MARPOL requirements.

8.2.3 Waste management

Waste management has been discussed in detail in preceding IESC monitoring reports and was not a focus for the May 2019 monitoring visit. However, poor waste segregation was observed at the PAC construction area, where mixed wastes were deposited in 'plastics' bins. The IESC noted

²⁷ Regulation 9.1.1. refers to test parameters for certification of STPs as follows: 100 thermotolerant coliforms/100ml; BOD₅ of 25mg/l, COD of 125mg/l; and pH between 6 and 8.5

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that three bins located in the same area where all labelled 'plastics' suggesting this could be readily rectified if other waste bins were made available.

8.3 Greenhouse gas emissions (GHG)

The process for GHG Emission accounting as presented in Plan ms hse 021 Eni Ghana – GHG Accounting and Reduction Program, 25 October 2017 using bespoke software, SHERPA, was described in the previous IESC Monitoring Reports and is not duplicated here.

The reporting of GHG emissions, as required in Line 8 of the ESAP, was also discussed in the previous IESC Monitoring report (September 2018). The GHG emissions quantification programme was revisited during the May 2019 IESC monitoring visit, specifically as a follow up to the previous visit to ensure venting of gas from the ORF cold vent was being captured in the reporting software (because venting of gas at the ORF had previously not been a GHG emissions source during construction at the ORF).

Eni Ghana demonstrated that this emission source was been captured and included within its GHG emission calculations. Graphical representation of GHG emission expressed as tonnes CO₂ equivalent is provided in the figure below.

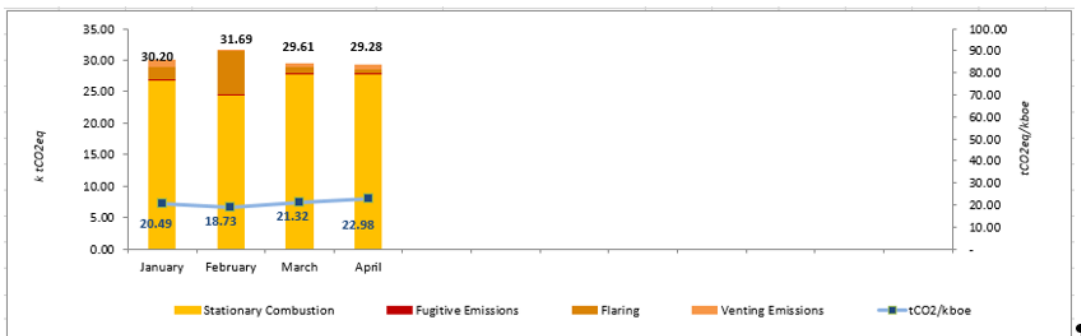
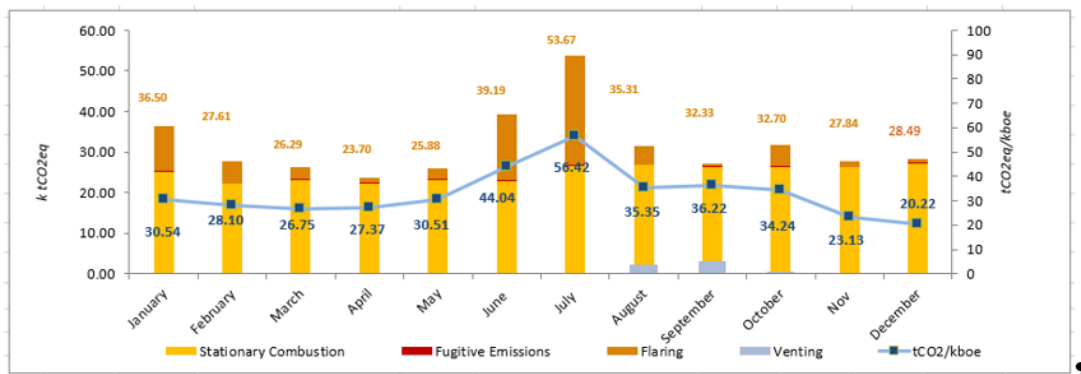


Figure 14: Total GHG emission expressed as tonnes CO₂ equivalent

It is the IESC’s opinion that the elements of the GHG quantification programme, including data collection processing and interpretation via SHERPA, are in line with good practice.

The permissible volumes of gas that can be flared and vented are described in EPA Permit CE002178053303 (issued on 15th May 2018) relating to the continued production of hydrocarbons, installations, completions and commissioning activities of the Phase 1 OCTP Block Development. This permit includes production of hydrocarbons from the oil-producer wells and remains valid until May 2020. The permit allows flaring of associated gas during upset and

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maintenance conditions up to 3% of the monthly gas total (with >3% emissions resulting in surcharges).

Since the permit was issued data collected by Eni Ghana show the volume of gas flared has remained on average below 3% of associated gas produced, noting 5.3% of total associated gas was flared February 2019²⁸. The IESC was informed that the EPA receives flaring data every month and no fines have been imposed.

The EPA has also issued the Permit CE00217780404 entitled Environmental Permit for the operation of the gas onshore receiving facility (ORF) at Sanzule in the Ellebelle District of the Western Region and associated offshore gas processing and gas export pipelines. This permit relates to the lifting (FPSO), transfer to ORF, processing and subsequent export of non-associated gas. The approved volumes during the commissioning period are 1500mmscf intermittent Non-Associated Gas (NAG) flaring on the FPSO and 400mmscf intermittent venting at the ORF. Furthermore, any flaring beyond 1% of the monthly gas production after commissioning will incur surcharges.

Eni calculates it has vented 31.51mmscf of gas amounting to <10% of the permitted limit for commissioning, and further that monthly venting amounts to <0.2% of gas produced (year to date).

The IESC concludes Eni Ghana's GHG emissions are within the permit conditions.

²⁸ IESC assumes the 3% limit is averaged over a period of months and a single exceedance is allowed if other months remain well below the limit.

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Table 7: Summary of Findings, PS3

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
007_5/19	Sewage treatment effluent (offshore)	Despite recent upgrades to the STPs on the PFSO and drillship, certain parameters to continue to exceed the limits quoted in the QMRs.	Production	PS3	The limit values used in the QMRs should be reviewed by Eni Ghana, and, in particular, standards applicable to the offshore environment confirmed with the Ghana EPA/other authorities with reference to MARPOL 73/78 as applicable.	Minor
008_5/19	Waste management	Poor segregation of wastes at source in the PAC construction area	Construction	PS3	Eni Ghana to ensure multiple bins are available for the different types of waste intended for segregation and recycling as per the Waste Management Plan.	Minor
009_5/19	Community water quality	Eni Ghana/ESL has not undertaken water level/drinking water quality monitoring from community wells. Eni Ghana indicated that it was not part of ESL's scope to analyse water quality for drinking water parameters, but instead this was the responsibility of the SLC team.	Construction and Production	PS3	Eni Ghana should clarify its position with respect to the monitoring of water quality from community water wells and fulfil the requirements of the Environmental Monitoring Programme (2018).	Minor

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9. PERFORMANCE STANDARD 4: COMMUNITY HEALTH, SAFETY, AND SECURITY

9.1 Introduction

In this Chapter the IESC's analysis focuses on the following two topics:

- Community health and safety; and
- Security.

9.2 Community health and safety

In late Q3 2017, a Community Health Management Plan was approved (September 2017) with a focus on the construction phase. An account of the initiatives implemented under this plan was provided in the IESC's September 2018 monitoring report. In April 2019, the Production phase Community Health Management Plan was approved for implementation. Like the earlier plan, it has four objectives, as follows:

- *Conducting pre-employment screening protocols and regular health screenings of employees;*
- *Raising awareness of employees and supporting them in the prevention of impacts on community health and safety, in conjunction with their own health care (pertinent to the Health and Safety Management System);*
- *Raising community-level awareness about risks to health and safety associated with Project activities; and*
- *Ensuring that community safety protection measures are considered in activities management in relation to the Production phase.*

The first three objectives are identical to those in the earlier version of the plan. The fourth objective clearly addresses the transition to the Production phase and recognizes the need for a change of focus from construction-related activities to those that will occur in the Production phase. As the Production phase plan shares three of the objectives of the earlier plan, most of the activities under the earlier plan will continue in the Production phase. The IESC observes that the number of Key Performance Indicators (KPIs) has been reduced from nine to seven with two KPIs on training being removed. However, the table of Eni Ghana commitments includes a series of training activities and refers the reader to the table of KPIs, where there are no such KPIs. These inconsistencies can be corrected during periodic management review of the Plan.

At the time of the IESC's September 2018 monitoring visit, the following measures underway or about to be implemented included:

- Distribution and installation of Insecticide Treated Nets (ITNs) to staff at all Eni Ghana accommodation units and for all staff and those of direct contractors who reside in their respective places of residence.

ITN distribution began in 2013 and is repeated every 3 to 4 years (there have been distributions in 2016 and 2019). There is no planned end date.

Following a procurement process that began in September 2018, an NGO 'Rural Aid Alliance Foundation' was appointed to undertake an awareness campaign on malaria and sexually-transmitted infections. The IESC understands that the campaign will involve two separate events; the first event was held between 18-20 December 2018 and the second will occur in 2019, but the date has not been fixed.

9.3 Security

Several security topics are discussed below:

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- Security Manager;
- Security Management Plan and MoU status;
- Offshore Security and the Exclusion Zones; and
- ORF Security Provision.

9.3.1 Security Manager

Early in May 2019, the incumbent Security Manager left Eni Ghana and a new Security Manager is now in post. There was an overlap as the new Security Manager was already in a Sanzule-based security post and therefore familiar with the work done and issues faced by the departing Security Manager. Of note, the Security function remains part of the Human Resources department.

9.3.2 Project Security Management Plan and MoU Status

In its September 2018 monitoring report, the IESC noted that the Project SMP (effective date of 01 January 2018) remained to be updated following the March 2018 labour unrest. During the May 2019 monitoring visit, the IESC was informed that a revised draft of the SMP was awaiting comment by WBG and that it would be finalised and approved by Eni Ghana in the near future. As the Project SMP is still being finalised, the IESC's previous comments and suggestions regarding the structure and content of the Plan remain valid, namely that Eni Ghana:

- Considers the advice and guidance presented in IFC's Good Practice Handbook entitled '*Use of Security Forces: Assessing and Managing Risks and Impacts: Guidance for the Private Sector in Emerging Markets*' (2017) with the aim of ensuring that the revised Plan is fully aligned with Lender requirements;
- Provides a clear presentation and explanation of the security-related powers of Eni Ghana and the Ghana Navy with respect to the various kinds of safeguarding zones and the protocols and procedures to be in place to manage interactions with all vessels that might be expected to enter the safeguarding zones (according to the current Project Security Management Plan, the Navy personnel would be unarmed); and
- Ensures that the Project SMP is aligned with other Eni Ghana plans that impinge on security-related issues (such as the Production phase Fisheries Management Plan and the Marine Traffic Management Plan).

The HR Manager confirmed that a revised version (dated 15 January 2019) of the Project SMP (effective date of 01 January 2018) was in place and being implemented pending the approval of a further version of the SMP (During the monitoring visit, a meeting was held between WBG and Eni Ghana to clarify WBG requirements. Following this meeting, Eni Ghana proceeded to revise the SMP.

Discussion are ongoing still with respect to signing an MoU with the Ministry of Defence regarding the potential use of the navy and army to protect offshore and onshore assets respectively. Currently, also, the police have a role on providing security for the ORF. The arrangement is informal and is based upon personal relationships between Eni Ghana and police personnel. It is recommended that it is formalized soon, perhaps via an MoU, to remove the uncertainty inherent in an informal 'agreement'. Given the importance of the MOU, and recognising Eni Ghana must rely on the cooperation of third parties where it has limited influence, Eni Ghana's efforts in seeking a formal agreement should be clearly documented.

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9.3.3 Offshore Security and the Exclusion Zones

The long-standing arrangements for ‘enforcing’ the exclusion zones (particularly around the FPSO) have continued, with no notable change in strategy and tactics or effectiveness. Therefore, the accompanying inherent risks of incidents that may be prejudicial to the health and safety of fishermen/Project personnel and the security/integrity of fishing vessels and offshore Project assets remain as previously reported. Figure 15 shows the number of incursions by month for the period January to May 2019 and the cumulative total. The number of incursions varies by week. However, the key figure is the cumulative total - almost 1600 incursions over a 5-month period, with 1 week in April experiencing just over 200 incursions. These figures, which may not be typical, dramatically show the extent of the problem at certain times.

There are exclusion zones around key offshore Project vessels: the Maersk Voyager drillship and the FPSO. The Maersk Voyager will be leaving its location soon leaving the FPSO as the main ‘attraction’ for the fishermen. This change will reduce the overall offshore safety risk, but the security risk remains a key threat to the FPSO and, indirectly the Project.

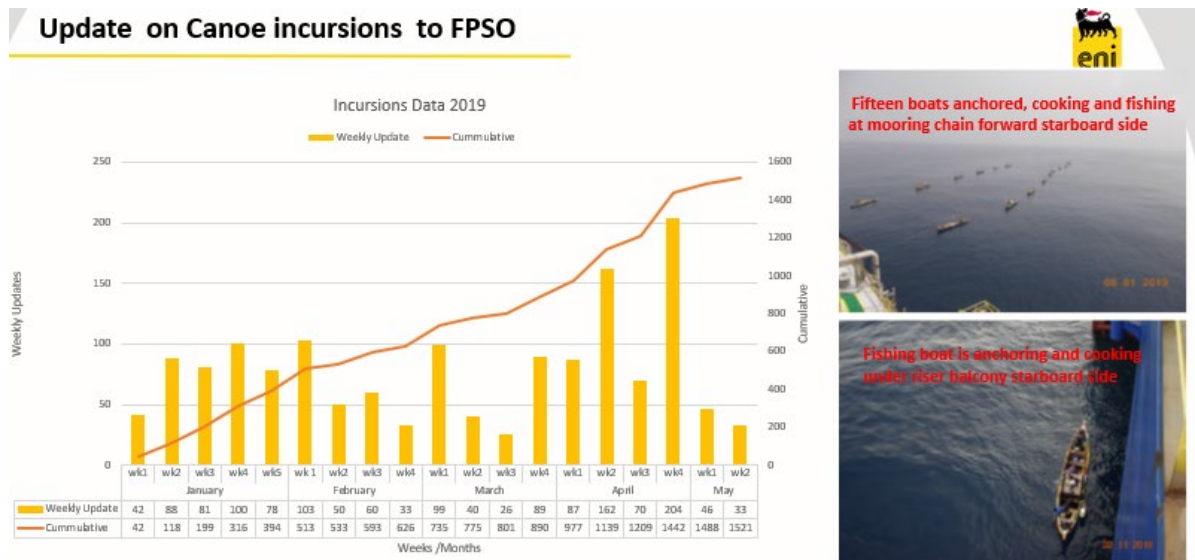


Figure 15: FPSO: Monthly and cumulative number of canoe incursions: January to May 2019.

Eni Ghana has increased its monitoring of incursions around the FPSO (the FPSO is a key attraction for fishermen for a number of reasons not least the increased density of fish in the FPSO vicinity). Since mid-2018, a record of incursions is kept, and an attempt is made to identify the canoes, their owners and the port or village where they are based. A database of offending canoes is being maintained which will allow potential patterns to emerge (repeat offenders and home port/village). Such information is being used/will be used to target canoe owners/crew and their communities for sensitization to the risks they face by continuing to encroach into the exclusion zones.

Eni Ghana continues its programme of meetings with fishing communities to persuade local fishermen to stop incursions. Most of this effort is directed at Western region communities, but recently, some fishing communities in Central Region have been targeted for this sensitization (a series of meetings was organized during the period 22-29 March 2019). Monitoring of incursions has provided data that show that most of the incursions are caused by canoes from outside the DAoI and, indeed, some incursions are by canoes from outside the Western region.

During the monitoring visit, the IESC had a meeting with members of the FMCC (See section 10.3). Members are fully aware of the problem of incursions into offshore exclusion zones and stated to the IESC that it was now some time since a canoe from a DAoI village was implicated in

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an incursion. Indeed, the FMCC offered its services, based on two specific and concrete suggestions, to assist Eni Ghana sensitise other communities to the issues/dangers of incursions.

Since the September 2018 IESC monitoring visit, a new Ghanaian government initiative to resolve the issue of fishing vessel (canoes, mainly) incursions into declared offshore exclusion zones, has been transmitted to the offshore oil/gas operators. Essentially, the Ministry of Defence has written to all the operators suggesting that they all hire, from a private company, special-purpose vessels with naval personnel on board. It is proposed that there would be two vessels for each offshore field and that they would patrol the exclusion zones and, as naval personnel would be on board, it would be possible to enforce the exclusion zones by preventing access by canoes and, if necessary, arresting the offending fishermen and confiscating their equipment. The IESC understands that the operators, having considered this initiative, have replied stating that the proposal is acceptable, in principle, but that there are key details that need to be discussed and, as necessary, negotiated. Meetings with the GNPC (designated by the Ministry to be the lead agency on this initiative) were expected to occur in June to discuss the initiative further.

Also, of note, a multi-stakeholder workshop was organized in Takoradi (4 April 2019), under the auspices of the Petroleum Commission, on the Safe Seas Access Framework (SSAF). The workshop concluded with a series of recommendations/proposed actions to address the incursions and interference/conflict issues. The next step is to submit the SSAF to the newly-formed Chamber of Oil and Gas Companies and, possibly, to the Steering Committee on cumulative impacts when it is fully functional. The aim is to obtain the support of these bodies for implementation of the recommendations/proposed actions.

Given the intervention of the Ministry of Defence and the Petroleum Commission initiative, the offshore security landscape may be changing. Nevertheless, suggestions to improve offshore security, first presented in the March 2018 monitoring report for Eni Ghana consideration, remain relevant:

- Continuing to try to identify the identity and home port of the fishermen that are causing most of the incursions and mobilize community-level sensitization meetings in these localities to a) explain the risks of incursions and b) inform fishermen that, should they try to enter the zones, the negative effects outweigh the potential benefits of entering the zones;
- Introducing incentives that would benefit fishermen which might act at the same time to reduce willingness to risk making incursions into the exclusion zones; and
- Continuing to analyse experience of other O&G operators in the region. The IESC would further suggest that this analysis extends more widely, perhaps to other regions beyond Africa, to identify effective practices that may be transferable to OCTP.

9.3.4 ORF Security Provision

The transfer of all Eni Ghana security provision to G4S is proceeding and G4S performance to date is proving satisfactory. In the IESC's March 2018 monitoring report the following issue is identified,

"The future appointment of a single company to provide security may mean that some, or indeed all, of the locally-recruited security guards (from the DAoI) lose their jobs - effectively being retrenched for business reasons. This situation may lead to labour unrest."

In line with its stated intention, Eni Ghana transferred responsibility for provision of security services, for the ORF outer perimeter, from Real Life Security Services to G4S. Real Life Security Services was demobilised on 31 May and G4S mobilised on 01 June 2018 for provision of security services (initially only at some areas of the ORF). Real Life employed 22 guards, mostly from DAoI communities. During the September 2018 monitoring visit, the IESC was informed that

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most Real Life Security workers were considered by G4S as potential recruits (some were deemed unsuitable due to their performance while with Real Life Security) and that, to date, 11 ex-Real Life Security workers were recruited by G4S after passing the required vetting tests.

As of May 2019, the remaining ORF security (areas other than the outer perimeter) is still provided by DFI, contracted by TechnipFMC, as TechnipFMC's presence on site has extended beyond the planned completion date of December 2018. DFI employs about 30 security guards and many are local. Eventually, G4S will be providing all security at the ORF. Of note, in 2019 to date, there were no grievances raised against a security provider.

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Table 8: Summary of Findings, PS4

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
010_5/19	Project Security SMP	<p>The Project SMP requires substantial revision following the labour unrest in Q1 2018 and, also, in response to the IESC's finding that offshore security provisions have not changed since September 2018. IESC understands that agreement between Eni Ghana and WBG is close with respect to finalising the current draft SMP.</p> <p>Project need for state-sponsored security back-up provision for the operational ORF. Currently, there is only an informal agreement/understanding between Eni Ghana and the local police regarding the role of the police in providing security. Such an agreement/understanding is not sufficient.</p>	Construction and Production	PS4	<p>The Project SMP to be agreed with WBG and approved/signed off as soon as possible.</p> <p>The final SMP needs to include all pertinent international and O&G sector guidance on managing security and be aligned with other Eni Ghana plans that impinge on security-related issues (such as the Production phase Fisheries Management Plan).</p> <p>An MoU to be reached, as soon as possible on the use of State actors (Navy and/or Army) in the protection of offshore and onshore assets and personnel (especially the operational ORF). This MoU should be based, to the extent practical, on international and O&G sector guidance; such as IFC's (2017) Good Practice Handbook entitled '<i>Use of Security Forces: Assessing and Managing Risks and Impacts: Guidance for the Private Sector in Emerging Markets</i>'.</p> <p>An 'agreement' between the Project and the police should be formalized soon, perhaps via an MoU, to remove the uncertainty inherent in an informal 'agreement'.</p>	High
011_5/19	Project Security Management Plan – fishing vessel incursions	Incursion of fishermen into exclusion zones	Construction and Production	PS4	<p>Efforts to enforce exclusion zones must continue/new initiatives need to be sought. Eni Ghana should continue liaison with other O&G operators in the region (and consider experience from other West African regions and those beyond West Africa to identify effective practices that may be transferable to OCTP).</p>	High

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ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
					Continue with efforts with Ghanaian authorities, such as GMA and GNPC, to expedite agreement on measures and mechanisms that can improve offshore security in both the short and long-term (recognizing that a sustainable long-term solution/s may not be implemented for several years). These efforts to include concluding an MoU with the Ministry of Defence with respects to the contribution of the Navy to provision of offshore security.	

10. PERFORMANCE STANDARD 5: LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

10.1 Introduction

The Project is currently occupying land and offshore marine areas and will continue to do so. Both an LRP, focusing on land-based livelihoods (the non-monetary compensation element of this Plan is referred to below as the Livelihoods Restoration (LR) Programme), and a construction phase Framework Fisheries Management Plan were prepared (followed by a Production phase Fisheries Management Plan). Thus, the Project is managing land and fisheries-related economic displacement in separate, but linked procedures/activities.

The LR Programme is supported by 6 SLC staff (unchanged since the March 2018 monitoring visit), whereas Fisheries Management Plan implementation is supported by 1 staff member only (the support this staff member received from a colleague has been discontinued). Five of these staff members are based in Sanzule (see Figure 5).

This section presents findings for both land- and fisheries-focused economic displacement separately.

10.2 Land - focused economic displacement

10.2.1 Transitional Support – Food Aid

The time-bound 'Transitional Support Food Aid' component (monthly distribution of food to 205 households) of the LR Programme continued to be the key 'bridge', between payment of compensation and the delivery of revenues (cash incomes) to the Project-affected persons (PAPs²⁹), from the LR Programme 'Support Services' component, until April 2019. The planned termination of Transitional Support Food Aid' was postponed from the original date of December 2018 to April 2019 to ensure that the 205 households had been provided with sufficient capacity to enable them to restore their livelihoods. There will be an 'extra' month of food aid distribution with the 'missing' September 2017 food aid³⁰ being delivered in the month following the final 'termination' month (that is, May 2019).

Since the time of the first IESC monitoring visit (February 2017), Eni Ghana has been considering the issue of an appropriate date for terminating 'Transitional Support Food Aid' distribution. In August 2018, Eni Ghana approved a document entitled 'Livelihood Restoration Termination of Food Aid Strategic Plan' (referred to as the 'Termination Strategy' below) which presented the key principles by which the termination would be managed and implemented to ensure a) a smooth transition, for PAPs, from receipt of food aid to receipt of a continuing (and, it is expected, expanding) sustainable income streams from the LR Programme 'Support Services' component (see Section 10.2.4 below) and b) that this transition is aligned with PS 5 requirements.

As explained in the IESC's September 2018 monitoring report, the termination of transitional food aid is linked directly to the ability of the LR Programme 'Support Services' component to provide the capacity (essentially means to generate enough cash income) to the PAPs so that their livelihood status would be, at minimum, restored. The cash will be derived from a series of income-generating activities (options), selected by each of the 205 households. There are two categories of options (the 1st option and the 2nd option: Eni Ghana considers that all selected 1st

²⁹ There are 205 households targeted by the LR Programme. All household members are classed as PAPs. LR Programme measures target households and therefore all PAPs.

³⁰ The September 2017 food aid distribution did not occur due to contractual issues.

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options and 30% of the 2nd options will be in place by end May 2019 (with some options in place earlier).

Eni Ghana has undertaken work to determine a) that the capacity has been created to generate income streams and b) that the income streams are being generated sustainably. Prior to announcing the termination date, key performance indicators were set and monitored. Also, a validation study (with report)³¹ was finalised in mid-April 2019, jointly by Eni Ghana and VUGL. The work undertaken involved engagement with PAPs, TechnoServe and Eni Ghana SLC staff responsible for managing LRP implementation to, "...verify and confirm whether the 1st options were set up and producing or ready to produce and in which time frame." The validation study 'observed' that termination of food, at end of May, could occur as planned (IESC assumes that this end May date has taken account of the delivery of the 'missing' September 2017 food aid – as mentioned above). The validation report provided data that supported a termination decision that was already taken, but demonstrated that the decision was credible based on the data available. The validation report states that about 20 % of PAPs had not, "...officially started to generate revenue..." due to a range of differing internal (at household level) and external factors. It is suggested, in this report, that it is better to manage this challenge by targeted actions rather than to continue food aid delivery to these PAPs (see below).

Eni Ghana is aware that terminating the food aid is an economic 'shock' for the PAPs. Considerable effort has been expended in community-focused meetings to explain the reasons for food aid termination and the process to be applied prior to setting the date for termination (see the IESC monitoring reports for Q3 and Q4 2019). In these meetings, several participants opposed the termination of food aid in December 2018, citing a range of reasons, but mostly based on a view that the options were not yet generating enough income for enough of the households. During the May 2019 monitoring visit, the IESC met with representatives of the LRWG. Several LRWG members made this same point (see section 10.2.4). The intervening months (December to April), with food aid delivery continuing and more options beginning to generate incomes, have not combined to reduce the prevalence of this view. The IESC offers an observation at this point. Eni Ghana is giving emphasis to the creation of capacity to generate revenue (which assumes a commitment on the part of recipients to take advantage of the capacity created) whereas some local people are basing their view on their actual incomes.

Recognizing that not all households may be able or willing to take advantage of the capacity created, Eni Ghana has added some 'enhancements' to the LR Programme 'Support Services', as follows:

- Working closely with PAPs during land selection for the options so that the land is available and suitable for the intended options;
- Enabling PAPs to change the selected options (assuming there are justifiable reasons for the change);
- Altering/adding to certain starter packs' (for example, materials and equipment to enable the options to be implemented according to PAP needs (for example additional chicken feed for PAPs who have chosen egg production));
- Providing connections to the national grid and internal wiring for those options that require sustainable electricity supply'
- Outsourcing of specific services to PAPs (so that income can be provided in exchange for the services); and
- Providing advice/assistance on marketing and market access.

³¹ Eni Ghana (18 April 2109) Report of Validation Mission Report on Evaluation of Livelihood Restoration Plan (LRP) Implementation (page 15).

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Also, a refresher training event on financial management was organized for PAPs to reinforce earlier training now that options are beginning to generate cash incomes. Given the crucial importance of restoring livelihoods, it is recommended that Eni Ghana maintains a register of each individual PAP, from the estimated 20%, who has not yet started to generate revenue and records remedial actions taken with date, responsible entity/person, and results, to assist it to track success in restoring livelihood status of these PAPs, with special emphasis on vulnerable PAPs.

Of note, at the time of the IESC's May 2019 monitoring visit, no grievances were submitted to Eni Ghana directly, or escalated from TechnoServe, relating to food termination (perhaps because the first full month with no food aid distribution is June 2019).

10.2.2 Transitional Support - Health and Educational Support

As mentioned in previous IESC Monitoring Reports, the IESC has been concerned about the change in the LRP commitment that those eligible for transitional support food aid are eligible, also, for health and educational support, including payment of costs associated with the National Health Insurance Scheme and fees required for school enrolment (as per the Livelihood Restoration Plan). In summary, health support will be provided through the Community Health Management Plan and educational support via a targeted CIS project (already in its design phase and moving toward procurement). The 'beneficiaries' of the support initiatives will be most, if not all, community residents and not just the PAPs.

Previously, the IESC raised two concerns about the changes outlined above: 1) retention of equivalence in benefits by the project-affected households, that is, these households must not be disproportionately affected; and 2) a reputational risk based on possible perceptions that targeted funding is now being subsumed into two initiatives that benefit almost all community residents and not just the project-affected households.

The intention, in CIS implementation, to focus certain projects/activities on PAPs and vulnerable people/groups, in addition to the support they will receive from the LRP Support Services work already underway will serve to redress the balance in terms of the relative support provided to PAPs and non-PAPs and reduces the reputational risk.

10.2.3 Financial Management Training

This activity, undertaken by DEQ Change Foundation, is completed. The IESC understands that TechnoServe provides support to the cooperatives/associations founded as consequence of this training, as needed, though this activity is not part of its contract. Also, financial training has been continued by TechnoServe, but this training builds upon the generic training provided by DEQ Change Foundation and is more focused and tailored to the specific needs of groups of PAPs following their selected options.

10.2.4 LR Programme Support Services

At the time of the IESC's May 2019 monitoring visit, Eni Ghana considered that conditions to generate incomes have been restored to 98% of the PAPs. This figure is based upon the % of the options (1st and 2nd options) completed. Further, Eni Ghana considered that this figure would rise to 100% by the end of May 2019. In early/mid May 2019, 209 out of a planned total of 213 1st options were completed with only a single 1st option left to start (the remaining 3 options were in progress). At the same date, 37 out of a planned total of 125 2nd options were completed. Completion means that the conditions exist for adequate income generation to occur. As stated above targeted assistance will be available for those who cannot receive the intended income streams at the date of food aid termination.

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The key challenges faced by TechnoServe are to:

- Complete implementation of all options;
- Ensure enhancement of the LR Support Services implementation strategy in an adaptive manner based upon targeted follow-up and support to PAPs declaring that their livelihoods have not been restored (due to options not generating sufficient incomes) with an emphasis on vulnerable PAPs; and
- Work to improve linkages to markets for the PAPs.

Implementation of options has brought its own challenges such as lack of suitable land near Sanzule and uncertain security of tenure for PAPs who do not own the land. In some cases, land is distant from Sanzule (although not always a problem as these lands have been selected by the PAPs). TechnoServe has developed and then implemented a GIS-based mapping tool integrating PAP locations, access routes and option site locations, to assist option site location decision-making.

The IESC understands that forested land has been cleared for an 'agricultural' option. Such an action is likely to cause environmental damage (habitat loss), which is a concern. In this context, also, the IESC has a concern about the location of some fishponds created for the aquaculture options. As water is a key element of aquaculture, some fishponds are in swamp areas. Up to 43 fishponds have been created due to the number of PAPs choosing aquaculture as their 1st option; some may already have fishponds that have been rehabilitated so the number of new fishponds is not known by the IESC. However, the net result is likely to have been a change in the environmental integrity of certain areas of swamps, though the scale and significance of any such change is not known. Cumulatively, option implementation has the potential to result in adverse changes to certain valued habitats, including habitat loss to both forested areas and swamps.

The Livelihood Restoration Programme states the following key principle (one of nine) regarding implementation of livelihood restoration options:

"Sustainability: Livelihood options will be implemented based on sustainable practices. The LR Programme will not introduce invasive species or chemicals that damage soils. Options will not result in deforestation of forest land that is not part of the cultivation cycle. In all cases, sustainable agriculture practices will be encouraged with a focus on organic fertilizers."

Considering this principle, the IESC recommends that future site selection exercises for 2nd options and any other facilities/actions required to implement livelihood restoration activities should include consideration of the E&S implications prior to the final location decision. The GIS tool will assist in this endeavour. By this means potential harm may be avoided or reduced while still meeting planned livelihood restoration objectives. Eni Ghana and TechnoServe should work together to create a simple E&S screening procedure to guide site selection with allocation of responsibility to senior HSE staff members in terms of making the final decision and then sign off. Supervision of option implementation (including a monitoring procedure), for certain cases, up to the point where the option is operational should be part of the screening process is required. Also, the extent of any habitat loss due to livelihood restoration activities should be calculated and included in overall Project calculations of net loss of natural habitat (see Section 11.11).

Regarding security of tenure, TechnoServe has initiated a procedure by which a land-owner agrees to give a PAP right to access and use land for his/her option (the terms are negotiated between the two parties). A written agreement is prepared granting permission to access and use the land and is signed by the both parties. A copy of this agreement is maintained in a file in the TechnoServe office. As swamps are not owned by individuals and are Stool land, the Stool grants permission to access and use them. In this case, the written agreements are signed by both a PAP and a representative of the Stool.

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As mentioned above, the IESC met with the LRWG, which is an informal body established by Eni Ghana to assist/advise with livelihood restoration. Its formation is not required by the LRP. The LRWG consists of 4 members (2 'youths' and 2 'elders' with parity in terms of number of men and women). A summary of key points arising from the meeting is provided here:

- Not all 1st options have been installed;
- There have been problems with installation of the 1st options for some PAPs and some problems remain;
- View exists that not all problems resulting from the 1st options were being given the appropriate level of attention due to the focus on installing the 2nd options;
- Acknowledgment that 1st options were generating income, but not all of the options are generating enough income;
- Following experience of the 1st options, community members now had more realistic expectations and that TechnoServe had 'learnt lessons'; and
- Concern expressed that food aid termination had been implemented too soon.

Overall, there was a view that TechoServe was doing 'well' and that the presence of the Project and the delivery of the transitional food aid had resulted in changes, mostly beneficial, to Sanzule. However, there was disquiet about the decision to terminate the food aid in April 2019 when several PAPs were not reporting sufficient income generation. In this context, the community was looking to the successful completion of the 2nd options as a means of overcoming some of the current 1st option problems. Finally, there was a view that, despite the benefits that the Project had brought to Sanzule, Eni Ghana still had to deliver the expected benefits from the LR Programme Support Services (the objectives of which had been conveyed to the PAPs previously).

During the May 2019 monitoring visit, the IESC met TechnoServe staff and visited various operational sites where facilities and activities related to the selected options were occurring (see photos 3 and 4). Informal discussion occurred with several PAPs met at some of the sites. Overall, the IESC can confirm that the PAPs met expressed satisfaction with the performance of their selected options.

Cumulative progress for the overall LR Programme Support Services, as at the end of April 2019, can be seen by the graph presented in Figure 15 (the green line shows progress and the blue line shows the baseline, essentially the expected level of performance). Progress shows an 'on target' 70% completion. At the time of the September 2018 IESC visit, progress showed 40% completion, which was 7% behind target. It is pleasing to note that TechnoServe has managed to 'catch up' over the past 6 months to now be on schedule.

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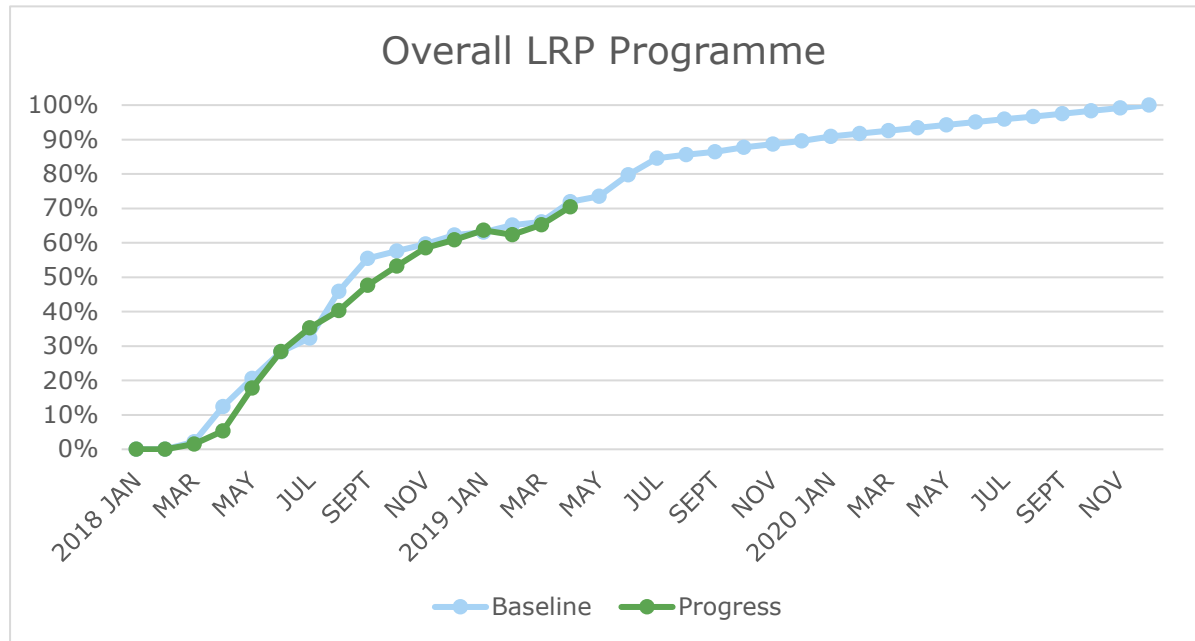


Figure 16: Cumulative Progress at end April 2019: Progress against Baseline



10.2.5 External Interim Audit

In line with the LRP, Eni Ghana has commissioned an external interim audit of the LRP implementation. An external consultant was commissioned and undertook the interim audit between 23 April and 3 May 2019. The first draft of the audit report is due to be submitted in June 2019. This interim audit will be followed by an external completion audit to be implemented one year after completion of LRP implementation.

10.3 Fisheries-focused economic displacement

During the IESC’s May 2019 monitoring visit, the IESC met with the FMCC (13 participants of which 5 were women). Since the previous IESC visit, the Project impact on those following fishery-based livelihoods has declined as there are now no restrictions to nearshore and beach-

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based fishing and collecting activities. All disturbance allowance payments have been paid and there are no outstanding grievances related to these payments.

There are two outstanding grievances under consideration by the FMCC (the FMCC has been designated as the entity that will consider and try to resolve all fisheries-related grievances). The first grievance relates to damaged nets caused by an 'alleged' anchor on the seabed (about 300m offshore of Anwolakrom) and the second relates to a recent similar incident, but this time a cable is considered be the cause of the damage. Both grievances are being actively managed by the FMCC and it is cooperating fully with Eni Ghana to resolve them. At present, the FMCC is not concerned about the number of demobilised workers returning to fishing (see section 7.4.1 above).

Overall, the FMCC reported two key challenges:

- Anchor/cable grievances and the need to resolve and then close them; and
- Continuing problem of seaweed and its detrimental effect on fishing effort and, hence, catch sizes/value (this is not a situation that is within Eni Ghana's control).

The fishmongers reported a key concern as follows: they received disturbance payments, but have found it difficult to use the money productively as catches have been disappointing due to the seaweed problem. Given this situation and its likely continuation, they would like more economic opportunities to be available for them.

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Table 9: Summary of Findings, PS5

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendation	Significance
012_05/19	Livelihood Restoration (LR) Programme Support Services	At time of food aid termination, about 20% of PAPs had not, "...officially started to generate revenue...".	Construction and Production	PS5	Eni Ghana to maintain a register of each individual PAP, from the estimated 20%, who has not yet started to generate revenue and record remedial actions taken with date, responsible entity/person, and results, to assist it to track success in restoring livelihood status to these PAPs; with emphasis on vulnerable PAPs.	High
013_05/19	Livelihood Restoration (LR) Programme Support Services	Certain sites selected for LR Programme Support Services options may have caused environmental harm to forested areas/swamps resulting in habitat loss.	Construction and Production	PS 5 and PS6	Eni Ghana (environmental team) and TechnoServe to work together to create a simple E&S screening procedure to guide site selection with allocation of responsibility to senior HSE staff members in terms of making the final decision and then sign off. Supervision of option implementation (including a monitoring procedure), for certain cases, up to the point where the option is operational should be part of the appraisal process. The extent of any habitat loss, due to livelihood restoration activities, to be calculated and included in overall Project calculations of net loss of natural habitat.	Moderate

11. PERFORMANCE STANDARD 6: BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES

11.1 Introduction

The IESC met with the Ghana Wildlife Society (GWS), the entity contracted by Eni Ghana to complete monitoring programmes for turtles, birds and marine mammals. In addition, a brief walkover of the construction activities associated with the ORF focused on the following aspects: storm-water management, erosion control, implementation of the Flora Conservation Plan, restoration and revegetation, potential impacts to natural swamp habitats, and inspection of the GES beach crossing location. A meeting was also conducted with ESL with regard to its environmental monitoring contract, which includes elements of monitoring relevant to biodiversity management, such as invasive species and vegetation. ESL is also contracted by Eni Ghana to implement its Flora Conservation Plan, including management of a plant nursery at the ORF site.

Ramboll's biodiversity expert participated the September 2018 site visit and made a number of observations, including opportunities for improvement. In this chapter, several of the earlier findings are revisited and updates provided accordingly. The chapter therefore focuses on:

- Alien invasive species;
- Reinstatement;
- Site drainage and erosion control;
- Marine mammal, avian and turtle monitoring programme; and
- The no net loss of wetlands strategy/BAPs.

11.2 Alien invasive species

In its September 2018 monitoring report, the IESC noted that the revised Environmental Monitoring Program for the Production Phase of OCTP Phase 2³² excluded a requirement for monitoring of invasive species. This was presumed to be because the Production phase plan assumed reinstatement would be complete and the risk of invasive species, colonising bare soils, no longer a risk. The IESC therefore recommended the Environmental Monitoring Plan be revised to include ongoing monitoring and eradication of invasive species.

In May 2019, the Monitoring Plan remained unchanged, however it was clear from discussion with ESL that it continues to monitor and record the presence of invasive species. Furthermore, ESL indicated that much of the rapid colonisation of reinstated area was with invasive species (Appendix 5 Photo 11). The IESC understands from previous visits that these invasive plant species will quickly be succeeded by perennial plant species.

ESL should continue to monitor the presence of invasive species and their subsequent succession during Production phase until invasive species have been replaced and there is no longer a risk from such species. The IESC understands this is the intention and will revisit this issue during the next monitoring visit.

11.3 Site drainage

In September 2018, the IESC highlighted that a sediment trap, intended to prevent run-off of surface waters containing high suspended solids content to swamp areas, had very limited retention periods due to a design flaw. Following the May 2019 visit the IESC can confirm that the aforementioned sediment trap has been rebuilt. Elsewhere on-site, additional sediment traps

³²Reference: Environmental Monitoring Program for Production Phase of OCTP Phase 2, prg ms hse 011 eni ghana r00, March 2018

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have been inserted (Appendix 5 Photo 12) within the main site drainage channels, and the drainage channels have successfully been revegetated, thereby reducing flow velocity in the channels and filtering out solids (Appendix 5 Photo 3). In general, the IESC reports that measures to reduce sedimentation of swamp areas is much improved.

During the September 2018 site visit, the IESC observed that erosion and sediment transfer still posed a risk to adjacent wetlands at some locations. In particular, the discharge from the ORF site (internal fenced area) continues to show signs of erosion resulting in sedimentation of the adjacent wetlands (Appendix 5 Photo 19). The IESC previously recommended that sloping areas receiving water discharge were stabilised as soon as possible, ideally with soft-engineering techniques, for example, geo-jute and rapid vegetation establishment.

In response to the IESC observations, Eni Ghana asked ESL to prepare and implement reinstatement measures. ESL's strategy involves excavating out the ground surface to lower the ground level and allow ingress of water from the swamp, effectively encouraging the swamp to extend towards to point of discharge. The IESC accepts the concept would have the advantages of regenerating swamp and preventing erosion (if the discharge is to water rather than exposed earth), however is concerned that the area remains dry despite relatively elevated water levels at the time of the visit, and therefore prone to ongoing erosion. It is therefore recommended that the area is closely monitored and soft engineering measures previously recommended are implemented if swamp regeneration, and thus prevention of erosion, is not successful.

11.4 Top soil management

Topsoil has been stored under plastic sheeting to prevent erosion during heavy rainfall. The practice has proven to be successful and top soil fertility retained based on monitoring conducted by ESL.

At the time of the visit there had recently been an intensive replanting campaign that had utilised much of the stockpiled topsoil. Most of the previously disturbed areas have now been reinstated resulting in relatively small volumes of remaining topsoil stored on site (Appendix 5 Photo 9). ESL has confirmed that the remaining topsoil is sufficient to complete the reinstatement works.

11.5 Flora Conservation Plan

A visit to Eni Ghana's plant nursery confirmed ESL continues to manage the facility, which remains well stocked with pre-selected species identified in the Flora Conservation Plan (Photos 1 and 2).

11.6 Reinstatement and revegetation

Good practice examples of slope stabilisation are evident across the construction area, where steep slopes have been sown with grasses. The stabilisation has also been aided through the installation of fine, plastic netting mesh or geojute, through which the grasses are growing (as recommended by the IESC in September 2018).

Examples of reinstatement could be seen across the ORF (Appendix 5 Photo 7, Pipeline reinstatement; Appendix 5 Photo 9 Topsoil stockpile), using seedlings from the nursery and/or allowing natural revegetation to take place. The IESC also visited the beach area close at the LTE, including an area of coconut trees cleared during post-lay trenching activities. In this area 76 coconut trees had been removed and since replaced with significantly more coconut saplings (Appendix 5 Photo 6).

The IESC observed large volumes of excavated soil from the PAC that had been stockpiled behind and adjacent to the Consar laydown area (Appendix 5 Photo 18). The IESC questioned Eni

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Ghana’s plans for removal of the soil and was informed that details were described in the Restoration and Reinstatement Plan dated April 2019.

	Duration	Start	Finish	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Phase One - Clean up																				
north - soth pipeline corridor	27	5-Aug-18	31-Aug-18	█																
Orsam canteen area	24	28-Oct-18	20-Nov-18			█														
areas surrounding ORF fence	36	15-Nov-18	20-Dec-18				█													
Consar Laydown & surrounding	24	10-Jun-19	3-Jul-19											█						
Orsam/ TPFMC Laydown area	24	10-Jun-19	3-Jul-19											█						
Desimone Laydown area	42	5-May-19	15-Jun-19											█						
Batching Plant	34	28-Apr-19	31-May-19											█						
Remaining areas	32	30-Apr-19	31-May-19											█						
Phase Two - Topsoil Restoration																				
north - soth pipeline corridor	14	14-Sep-18	27-Sep-18	█																
Orsam canteen area	8	20-Nov-18	27-Nov-18			█														
areas surrounding ORF fence	13	5-Jan-19	17-Jan-19					█												
Consar Laydown & surrounding	10	1-Jul-19	10-Jul-19												█					
Orsam/ TPFMC Laydown area	10	1-Jul-19	10-Jul-19												█					
Desimone Laydown area	9	15-Jun-19	23-Jun-19												█					
Batching Plant	7	1-Jun-19	7-Jun-19												█					
Remaining areas	6	3-Jun-19	8-Jun-19												█					

Figure 17: Reinstatement schedule for temporarily disturbed areas

Based on the schedule in Figure 16 reinstatement of the Consar site and the surrounding area is scheduled for July 2019 (following demobilisation of Consar) over a 10-day period. However, the plan does not detail the removal of the stockpiled material, other than reference to handling of wastes and raw materials in accordance with the Waste Management Plan. The IESC therefore recommends that the quantity of waste soil is calculated, and a clear disposal/reuse strategy prepared.

11.7 Turtle Biodiversity Action Plan

A sea turtle BAP has been developed by Eni Ghana as part of the Project’s Biodiversity Management Plan (BMP). The Project’s ESIA identified sea turtles’ high priority as biodiversity components and as a qualifying species for natural habitat. The overarching goal of the sea turtle BAP is to ensure adequate management, control and monitoring of Project activities that pose a risk to sea turtles and nesting habitat in the Project AoI, with a particular focus on construction activity that affects the nesting beach. The sea turtle BAP was updated in June 2018 (revision 2) to reflect changes in the beach-crossing construction methodology (the ‘Simplified Shoreline Approach’).

The Simplified Shoreline Approach resulted in a two-stage approach, firstly the initial pipeline laying which resulted in a semi-exposed pipeline on the beach. The second phase involved post-lay trenching of the exposed pipeline, resulting in a second disturbance period on the beach in December 2018 (Figure 3). The revised shoreline crossing was subject to the MoC Procedure, and consistent with the outcomes of the procedure, further monitoring of the beach was required prior to, during and following the post-lay trenching activities. During meetings with GWS the IESC was informed that monitoring activities were conducted in line with the Sea Turtle BAP as follows:

- Monitoring for turtles/nests extended 2.5 km either side of the landfall (consistent with earlier studies);
- Monitoring started in November 2018, 30 days prior to post-lay trenching (nests, potential entrapment risks, presence and disorientation of mature turtles and/or hatchlings and impacts of security lighting). In total (pre, during and post activity) GWS surveyed the beach for a period of 3 months; and
- Monitoring of the beach twice daily during the night-time and at dawn.

The monitoring found evidence of 8 turtles (2 witnessed and 6 identified by tracks – Figure 18). The nearest sighting was 200m from the construction activities and therefore not directly

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impacted. Of the eight sightings, three of the turtles were thought to have been subject to poaching activities within the survey area.



Figure 18: Turtles tracks recorded during the GWS survey period (image courtesy of GWS)

The BAP refers to security patrols along the beach. No formal security patrols were conducted (as per the Sea Turtle BAP), although GWS effectively undertook patrols through its survey effort supported by local community members, albeit only for the 90 days survey period coinciding with construction works.

In conclusion, survey work conducted during the post-lay trenching was in accordance with the Sea Turtle BAP, concluding no direct impact on nesting turtles/hatchlings.

Other actions stipulated in the Sea Turtle BAP include:

- Supporting broader community-based conservation. Communicate and educate communities on threats to sea turtles (poaching, sand mining etc.), importance and benefits of conservation and illegal activities.” (See section 11.8.3, Additional Conservation Actions); and
- Eni Ghana is to, “....raise the issue of cumulative impact management, within the relevant operator / regulator round table forum and encourage the establishment of a cross-industry group in which potential cumulative impacts to biodiversity management committee can be addressed”.

The IESC is aware that Eni Ghana has endeavoured to raise biodiversity issues for discussion with other operators, albeit with limited enthusiasm received from the other parties. IESC recommends ongoing effort in this respect. (See section 6.5.1, Cumulative Impacts).

11.8 Avian Biodiversity Action Plan

GWS is responsible for the implementation of the Avian BAP. Its responsibilities include:

- Monitoring estuary shorebird roosting sites to ensure no direct or indirect disturbance

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- Conducting standard disturbance surveys as part of bi-annual shorebird monitoring programme;
- Monitoring the Important Bird and Biodiversity Area (IBA) within the project AoI: and
- Monitoring Vulture populations and site usage, nesting and use of feeding areas.

Key aspects of the Avian BAP and GWS's remit are discussed in turn below.

11.8.1 Shorebird monitoring

GWS has been performing monthly avian monitoring surveys of the Amanzuri River Estuary and shoreline since April 2017. This site is outside of the 5 km DAoI of the Project, however monitoring of this important roost site is included in the Avian BAP to ensure that there is no direct or indirect disturbance. GWS is also completing monitoring of forest bird species and vultures.

The results of the shorebird monitoring are presented in monthly reports produced by GWS. These reports are reviewed by Flora and Fauna International (FFI) and submitted to IESC for review upon request. Within its previous Quarterly Monitoring reports, the IESC has expressed concerns about the clarity of the reports and actual findings presented. Of particular note, reports produced in late 2018 indicate a significant reduction in the numbers of shorebirds observed since the Project commenced but further conclude no direct Project impact was identified at the shore, concluding that the conservation actions prescribed by the Avian BAP are currently adequate to protect shorebirds and their roosting site.

Whereas this may be the case, the conclusions provided in the monthly reports are not substantiated. It is therefore recommended that a summary report is produced by GWS, with support on data review and assessment provided by FFI, summarising all monthly data to date and providing an analysis of the findings taking account of seasonal fluctuations and other variables that might be influencing bird numbers. Ultimately, the summary report needs to provide robust science-based interpretation of the results to support the conclusion that the Project has had no direct or indirect impact on the shorebirds, such as, sanderlings.

11.8.2 Vultures

GWS continues to monitor the hooded vulture population in the surrounding area. Based on survey effort to date, 2 permanent roost sites and 6 feeding sites have been identified, however no nests or no juveniles have been found.

GWS informed the IESC that the main threats to vultures are from habitat degradation and hunting. These threats can be further assessed and managed as part of Eni Ghana's commitment to additional conservation actions (see Section 11.8.3).

11.8.3 Additional Conservation Actions

Table 5.5 and Section 5.4 of the Avian BAP details the additional conservation actions (ACAs) required in relation to the IBA. This is to meet the requirements set out in paragraph 20 of the IFC Performance Standard 6. It is understood that limited progress has been made by Eni Ghana to implement the additional conservation outcomes as specified in the Avian BAP. However, the IESC was informed that ACAs are being formulated by Eni Ghana with support from GWS and FFI.

The Avian BAP stipulates that in addition, Eni Ghana is to, "...raise the issue of cumulative impact management, within the relevant operator / regulator round table forum and encourage the establishment of a cross-industry group in which potential cumulative impacts to biodiversity management committee can be addressed". (See section 6.5.1, Cumulative Impacts). Of note,

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certain conservation actions, such as the prevention of poaching and closure of illegal vulture restaurants will only be possible with support from regulatory bodies, further emphasizing the importance of a collaborative approach to the management of cumulative impacts.

- 11.8.4 In addition to a variety of specific mitigation measures the Avian BAP includes actions to safeguard the broader IBA in line with guidelines for the implementation of ACAs. A list of potential ACAs is provided in Section 5.4 of the Avian BAP. The potential ACAs are generally longer-term programmes that rely on collaboration with other entities and as such they are to some extent linked to the success of the established of a functioning multi-stakeholder platform to manage cumulative impact (see Section 6.6).

Eni Ghana's progress in confirming its programme of ACAs was discussed during the monitoring visit. Based on this discussion the IESC understands that work to define ACAs is underway and will be presented in revised Avian and Sea Turtle BAPs. The ACAs should complement the requirement for no net loss of wetland habitat and be clearly presented in revised versions of the BAPs for WBG review. The ACAs are required to ensure the objectives of PS6 are met. It is therefore recommended that the original authors of the Avian BAP, understood to include FFI and Birdlife international, are involved in defining the ACAs and ensuring compliance with PS6. Similarly, the authors of the ST BAP should support the revision of the ST BAP and definition of ACAs therein.

11.9 Marine mammal monitoring

In the September 2018 monitoring report, the IESC reported that the level of marine mammal observations completed to date has not met the effort specified in the monitoring programme, and in particular, the number of dedicated monitoring surveys completed by trained and experienced Marine Mammal Observers (MMOs) was insufficient. A recommendation to increase dedicated monitoring effort was therefore made.

During the May 2019 visit, the IESC was informed that dedicated MMOs had been deployed for 3 days in January and 4 days³³ in February (during drilling) indicating that the level of monitoring effort had increased in line with the IESC recommendation. GWS also confirmed there had been monitoring during the additional pipelaying activities in late 2018.

To date, a total of 109 individual marine mammals have been sighted, of which 48 were incidental sightings made by crew members. Only 4 turtles have been sighted, perhaps indicative of the difficulties associated with spotting turtles compared with larger breaching sea mammals.

GWS experts indicated that there has been no evidence of impact on sea turtles and marine mammals in the area. This conclusion was based on their ongoing presence in the Project area and the observed behaviour of marine mammals/sea turtles that has shown no indication of abnormal/distressed behaviour.

11.10 Environmental monitoring of wetland water levels and vegetation

In its previous monitoring visit the IESC expressed a concern over the positioning of culverts (short section of pipe) beneath the access road close to the tie-in with the GNGC pipeline. Specifically, the pipes were considered to be positioned too high to maintain hydrological connectivity when water level falls in the dry season (Appendix 5 Photo 10). Whereas the IESC still considers the pipes are too high, monitoring performed by ESLs has demonstrated water levels are being maintained throughout wet and dry seasons (i.e. there is no difference in relative water levels in swamp either side of the pipeline right of way). This would suggest the road fragmenting the two areas of swamp is sufficiently porous to allow flow of water between the two

³³ Previously the duration of monitoring had typically been between 1 and 3 days.

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areas. Nevertheless, the IESC reiterates an earlier recommendation that water levels should continue to be monitored, especially during dry periods, and the pipes repositioned should water levels start to vary between the sides of the road.

11.11 No net loss of natural habitats

Eni Ghana’s No Net Loss Strategy for Natural Wetlands (plan ms hse 019 eni Ghana r00 – Biodiversity Management Plan_ App F) sets out the process for the re-assessment of impacts on Natural Habitats including quantitative calculation of Net Loss; identification and assessment of potential No Net Loss options; and the development of the selected options. According to the original version strategy dated September 2016, the next steps were prescribed as follows:

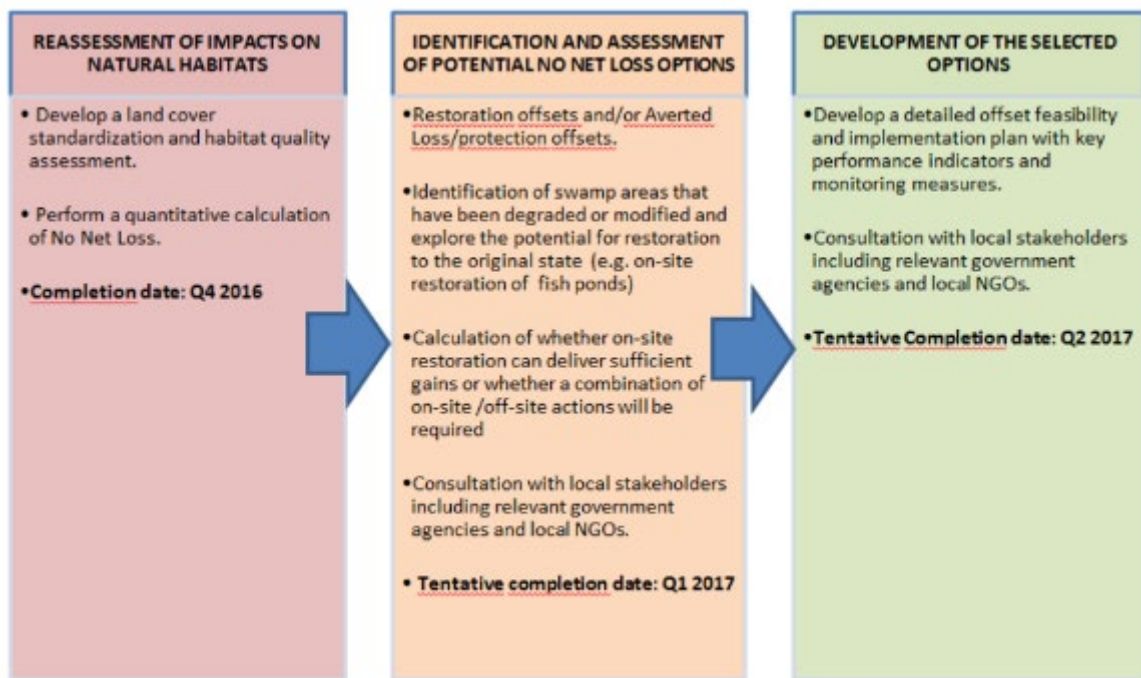


Figure 19: Eni Ghana’s No Net Loss Strategy for Natural Wetlands

In the updated version, step 2: Identification and Assessment of Potential No Net Options was rescheduled to be completed by Q1 2019. During the May 2019 site visit, the IESC requested a progress update on this action. Eni Ghana presented a summary of the mitigation measures adopted to minimise impact, however, whereas the mitigation measures will go a long way to minimising loss of natural wetlands, there will be an inevitable loss of some wetland. Identification and assessment of no net loss options for wetlands had not commenced at the time of the visit.

During the meeting Eni Ghana accepted the need to develop and then implement a no net loss strategy, indicating that the work would not be completed until end of 2019/early 2020. The IESC is not concerned with the delay in implementation of options because implementation of the strategy is not time critical, however given implementation of the strategy is now overdue, the IESC does stress the need to undertake the necessary studies and provide the WBG with its no net loss options at the earliest opportunity.

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Table 10: Summary of Findings, PS6

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations	Significance
014_05/19	Site drainage and erosion control	Eni Ghana, under advice from ESL, has chosen to regenerate swamp (by lowering the ground level) rather than use soft engineering options to reduce erosion and subsequent sedimentation of the swamp.	Construction	PS6/PS3	It is unclear how successful the concept will be. Water levels in swamp areas at the time of the visit were relatively high however were not inundating the area at the point of surface water discharge. This approach needs to be carefully monitored and soft engineering measures implemented if the concept of swamp regeneration fails.	Minor
015_05/19	Reinstatement - Removal of soil	The disposal strategy for the large quantity of waste soil stored behind the Consar laydown is not described in the ORF Reinstatement and Restoration Plan and is therefore unclear.	Construction	PS6/PS3	The quantity of waste soil should be calculated and a clear disposal/reuse strategy prepared. Priority should be given to beneficial reuse.	Minor
016_05/19	Shorebird birds	Monthly shorebird monitoring reports indicate reduced number of birds but conclude no linkages between the decline in numbers and the Project.	Construction and operations	PS6	Eni Ghana should produce a report summarising all monthly data to date and providing an analysis of the findings taking account of seasonal fluctuations and other variables that might be influencing bird numbers. The report should provide robust interpretation of the results to support the conclusion that the Project has had no direct or indirect impact on the shorebirds. Input from FFI is required.	Moderate
017_05/19	Additional conservation actions	The selection of additional conservation actions has not been made, but is	Operations	PS6	The ACAs should complement the requirement for no net loss of wetland habitat and clearly presented in	Moderate

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		underway, and will be presented in revised Avian and MMST BAPs.			revised versions of the BAPs for WBG review. The original authors of the BAPs should provide input into the revision of BAPs and the ACAs defined therein.	
018_05/19	Biodiversity: Environmental Monitoring of Wetland Water Levels and Vegetation	The culverts, located close to the GNGC pipeline tie in, that have installed beneath the access road and pipeline to maintain the hydrological connectivity and functioning in the adjacent wetland natural habitats appear to be position above the dry season water level	Construction and Operation	PS6	Water levels in the wetlands <u>either side</u> of the RoW should be monitored over the long-term to check that hydrological connectivity and functionality has been maintained and that changes are not impacting the wetland habitats.	Minor
019_05/19	Biodiversity: No Net Loss of natural habitats	The Identification and Assessment of Potential No Net Loss Options, scheduled to be completed by Q1 2019, has not been initiated	Construction and Operation	PS6	It is recommended that Eni Ghana initiate the prescribed programme as soon as possible and reports the findings of its options study to the WBG.	Moderate

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12. PERFORMANCE STANDARD 8: CULTURAL HERITAGE

During the IESC's September 2018 monitoring visit, the IESC was informed that the Chance Finds Procedure had not been triggered to date and, therefore, there was no perceived need to amend it. A similar view applied to the CHMP – no need to amend or revise it. Finally, with respect to the protection of nearby shrines and, also, the royal cemetery, the IESC was informed that this issue was being 'considered' as part of the CIS implementation. The status of the CHMP and efforts to protect the shrines and the royal cemetery were not investigated during the IESC's May 2019 monitoring visit.

APPENDIX 1 ENVIRONMENTAL AND SOCIAL ACTION PLAN

Updated ESAP - 01 February 2018 to replace the version updated 16 June 2017. Green indicates areas requiring action during the reporting period.

	Task	Indicator of Completion	Timeframe
1	Eni Ghana with support from Vitol will develop a construction/ development phase Environmental, Social, Health Management Plan (ESHMP) and the relevant management plans and programs in advance of development drilling and construction, followed by a production/operations ESHMP which will be developed before first oil, with gas-related elements integrated as needed before first gas. The ESHMP will be updated as required, such as in the event of any significant changes to the project and its environmental and social risks and impacts occur, following a Management of Change process. The ESHMP will include social management plans and procedures to meet the objectives of the Performance Standards, and those plans and procedures will be incorporated into an integrated Environmental and Social (E&S) Management System for the OCTP project.	Plans and procedures submitted to WBG: a) Development drilling and construction phase: ESHMP, Procurement Plan, Grievance Mechanism, Waste Management Plan, Security Management (Offshore) Strategy by November 15, 2015 b) Recruitment, Employment and Training Plan, Local Content Development Plan, Workers Development Plan, Marine Traffic Management Strategy, Commitment Register by end of November 2015 c) Development drilling and construction phase: all management plans (others than the plans specified in the action items below) approved by end of December 2016 d) Phase-1 commissioning and production operations: by end of August 2017 or one month prior to commissioning / production operations whichever comes first e) Phase-2 commissioning and production operations: by end of July 2018 or one month prior to commissioning / production operations whichever comes first.	a) 11/15/2015 – Complete b) 11/30/2015 - Complete c) 12/31/2016 Complete d) 08/31/2017 or one month prior to commissioning / production operations whichever comes first - Complete e) 07/31/2018 or one month prior to commissioning / production operations whichever comes first - in progress
2	Eni Ghana will require that contractors adopt measures and bridging documents to ensure that their management systems are compatible with HSE Policy, guidelines and procedures and the project ESHMP.	Evidences (i.e., approved bridging documents) collected and submitted to WBG.	12/31/2015 – Complete and ongoing
3	Eni Ghana will implement well integrity and control strategies and develop specific Well Control Emergency Response Plans for each well drilled. All drilling programs will be approved by eni headquarters (that will act as independent, expert third party in charge of verification/review).	a) WCEMP applicable to the first three wells drilled approved by eni headquarters and submitted to WBG by September 2015, and evidences of implementation of the third party verification/review of the drilling programs by October 15, 2015 b) Auditable evidences of implementation provided to WBG in the Annual Monitoring Report.	a) 10/15/2015 - Complete b) 12/31/2017
4	Eni Ghana will develop the specific E&S monitoring plans. A number of pre-construction surveys will be implemented, including: (i) preconstruction fish catch surveys at Sanzule and in the project area of influence, with specific focus on beach seine fishing activities; (ii) phyto- and zooplankton surveys (near the same time as the catch surveys and focusing on fishing grounds); (iii) ambient air quality and noise	a) Terms of reference of the time sensitive surveys (birds and sea turtles) submitted to WBG by end of October 2015	a) 10/31/2015 - Complete b) 06/30/2016 - Complete

	Task	Indicator of Completion	Timeframe
	monitoring in the area of influence of the ORF; (iv) preconstruction survey of sensitive avian species that may be present, particularly during the boreal winter.	b) Pre-construction surveys and monitoring plans submitted to WBG.	
5	Eni Ghana will report on their best efforts to engage other developers, local institutions and government, and other stakeholders in designing coherent management strategies to mitigate cumulative impacts.	a) Cumulative impact mitigation strategy submitted to WBG b) Evidences of implementation provided to WBG as part of the Annual Monitoring Report	a) 11/30/2015 - Complete b) 12/31/2016 - Complete
6	Eni Ghana will update and refine the air emission dispersion and noise propagation modeling during production facility final design to inform the identification and development of a package of air emission reduction measures.	Modeling updated and submitted to WBG during production facility final design and by anticipated completion date.	10/31/2017 - Complete
7	Eni Ghana will develop and enforce a policy and relevant procedures to ensure that operations of drillship, support vessels and helicopters minimize disturbance to marine mammals and turtles.	Policy and procedures submitted to WBG.	12/31/2015 - Complete
8	Eni Ghana will maintain a quantification program for GHG emissions, according to an internationally recognized emissions estimation methodology, and will establish annual review programs to identify areas of improvement and GHG emission reduction. Eni Ghana has committed to implement a Zero-Permanent Flaring policy, and will implement measures for minimization of venting and flaring (consistent with the Global Gas Flaring and Venting Reduction Voluntary Standard) and minimization of fugitive emissions.	a) Quantification and minimization program for GHG emissions submitted to WBG b) First annual report by anticipated completion date.	a) 10/31/2017 - Complete b) 12/31/2017 - Complete
9	Eni Ghana will include an environmental lead as part of the oil spill response team and will develop a clear mechanism of escalation of response effort based on coastal and biodiversity sensitivity. Mutual aid agreements with other operators in Ghana will be established.	Evidences of implementation (i.e., approved revised OSCP) submitted to WBG.	12/31/2015 - Complete
10	Eni Ghana with the support of Vitol will develop and implement a Livelihood Restoration Plan (LRP) for affected people in the community of Sanzule. Once all mitigation measures have been substantially completed and displaced persons are deemed to have been provided adequate opportunity and assistance to sustainably restore their livelihoods, eni Ghana will undertake a completion audit comparing outcomes against objectives of the plan and current living conditions against living conditions prior to the start of the project. eni Ghana will develop a Land Acquisition and Compensation Framework for any potential additional land acquisitions that may be required for the project or future expansions.	a) LRP workshop held b) Draft final LRP submitted to WBG c) Final LRP submitted to WBG d) Update report by Eni Ghana/Vitol on actions taken (e.g., financial training, food aid, education and health support, stakeholder engagement, feasibility studies by the 4 NGOs). The report will also summarize implementation issues faced in 2016-2017 and lessons learned. e) Evidences of implementation included in the periodic E&S progress reports and Annual Monitoring Report	a) 10/31/2015 - Complete b) 11/30/2015 - Complete c) 12/31/2015 or six weeks prior to construction early works whichever comes first - Complete d) 02/28/2018 - completed e) Based on LRP f) 03/31/2019 – In Progress g) Finalization report: at the completion of the LRP

	Task	Indicator of Completion	Timeframe
		<p>f) Interim Implementation Audit carried out by an external competent resettlement professional and report submitted to WBG</p> <p>g) Finalization report by implementing organization submitted to WBG and Completion Implementation audit carried out by an external competent resettlement professional and report submitted to WBG</p>	Completion audit: One year after the completion of the implementation of the LRP
11	Eni Ghana with the support of Vitol will develop a Fisheries Management Plan (FMP) to ensure fishermen are compensated appropriately and assistance for improving or at least restoring their living conditions is provided. The FMP will be monitored throughout its implementation to its completion. A participatory monitoring program will be developed with the involvement of local fishermen. The plan will also include a compensation framework in line with PS 5 in case fishers are adversely impacted by an oil spill.	<p>a) FMP strategy submitted to WBG.</p> <p>b) FMP submitted to WBG.</p> <p>c) Evidences of implementation of the FMP and participatory monitoring program included in the Annual Monitoring Report.</p>	<p>a) 12/31/2016 Complete</p> <p>b) 5/31/2017 or 2 months prior to construction sea pipeline whichever comes first - Complete</p> <p>c) 12/31/2017 Complete</p>
12	Eni Ghana with the support of Vitol will develop a Biodiversity Management Plan (BMP and relevant Biodiversity Action Plans) and will implement it, in collaboration with recognized species specialists. Seasonal constraints, associated with peak turtle nesting season between October and February and with dwelling season of the IBA triggering species, will be incorporated in the construction and operation management plans.	<p>a) BMP submitted to WBG, including identification of opportunities to enhance conservation of priority bird species (including specific focus on the hood vulture) and/or habitat in the project area</p> <p>b) BAPs for sea turtles and for birds submitted to WBG</p> <p>c) Evidences of implementation of the BMP / BAPs included in the Annual Monitoring Report.</p>	<p>a) 07/31/2016 - Complete</p> <p>b) 11/30/2016 - Complete</p> <p>c) 12/31/2017 - confirmed</p>
13	Eni Ghana will ensure that support helicopters will routinely avoid flying over the sensitive areas of Amansuri wetland and that, if avoidance is not feasible due to weather conditions, a minimum altitude will be specified, according to international good practice, when flying over this area to minimize disturbance to wildlife.	Evidences of avoidance (i.e., helicopter flight plans and relevant language on flights associated with emergency/oil spill response drills in the revised BMP - see Action Item 12) provided to WBG.	05/31/2016 - Complete
14	Eni Ghana and Vitol Ghana, as partner of the OCTP project, will develop and implement a community investment strategy for the area of influence of the project by identifying areas of potential social investment based on community assets and needs. The community investment strategy will be developed in consultation with local and regional stakeholders.	<p>a) Community investment strategy submitted to WBG</p> <p>b) Final Community Investment Strategy submitted to WBG</p> <p>c) Updates and evidences of implementation of the strategy included in the Monthly E&S Reports and Annual Monitoring Report.</p>	<p>a) 12/31/2015 - Complete</p> <p>b) 10/31/2017 - Complete</p> <p>c) 12/31/2018</p>
15	Eni Ghana and Vitol Ghana, as partner of the OCTP project, will hire an independent E&S consultant (IESC) to monitor and report on implementation of this E&S Action Plan and compliance with Performance Standards and E&S commitments. The monitoring visits will be carried out biannually (every six months) during development	<p>a) IESC's Terms of Reference submitted and approved by the WBG, and IESC hired</p> <p>b) First monitoring visit and report submitted.</p>	<p>a) 12/31/2016 - Complete</p> <p>b) 03/31/2017 - Complete</p>

	Task	Indicator of Completion	Timeframe
	drilling and annually during production operations. The reports of the IESC will be published.		
16	Vitol Ghana will assign an E&S assurance manager to the OCTP project to oversee environmental, health, safety and social aspects, ensuring compliance with Performance Standards and project E&S commitments.	E&S assurance manager appointed.	10/31/2015 - Complete
17	Vitol Ghana will develop and adopt a Human Resource Policy.	Human Resource Policy submitted to WBG.	12/31/2015 - Complete
18	Vitol Ghana will update its security policy to be aligned with the Voluntary Principles on Security and Human Rights.	Policy submitted to WBG.	12/31/2015 - Complete

APPENDIX 2 PROJECT DOCUMENTATION PROVIDED FOR REVIEW

Document Title	Reference/Company	Issue/Effective Date
No Net Loss Strategy for Natural Wetlands	pln ms hse 019 eni Ghana – Appendix F Rev 02	31 August 2018
Environmental, Social and Health Management Plan	plan ms hse 009 Eni Ghana – Rev 04	31 August 2018
Environmental Site Inspection Checklist & Report, ESL	ESL Consulting	15 th August 2018
Environmental Monthly Report – Onshore, ESL	ESL Consulting	July 2018
Environmental Monitoring Program for Production Activities Of OCTP Phase 2	prg ms hse 011 eni ghana r00- Environmental Monitoring Program	13 th March 2018
Quarterly Environmental Report Quarter 2: Apr-June 2018	ESL Consulting	June 2018
ENI OCTP ORF Project WBG Meeting	WBG-IFC-PPT_ESL Onshore OCTP-Sept18.pdf	September 2018
Fisheries Management Plan – Production	SUST-PLAN-010	12 September 2018
Gas Export Sealine – Engineering Change Form, Ready for Production	3515_01_EC_ES_EG_073	26/07/2018
Risk Assessment for Gas Introduction in the Temporary Partially Exposed Gas Export Sealine at the Landfall Area (Nearshore)	RA for Gas-in.pdf	16/07/2018
Management of Change (MoC) for the Environment & Social Aspects Associated with the New In-Filling Wells (GI-4, OP-9 and OP-10)	MoC For In-Filling Wells (Final 10092018) - Final	11/09/2018
EPA Environmental Permit	CE0021780425 – OCTP Phase 2 Development – Renewed Permit 2 (1)	August 27, 2018
EPA Environmental permit for hydrotesting and dewatering of the 63km gas export line.	CE2178/04/01	22 nd May 2018
WAPCO TEMA – Quantitative Risk Assessment, Rev 2 (Final draft)	351703DFRZ01570_EXDE01_46 (2)	04/06/2018
Risk Assessment for Double-Block_and_Bleed Plug System	Action 3. 351700DFPA01940_EXDE00_13	04/02/2018
Risk Assessment for Temporary Facility Set Up	Action3. 351700DFPA01933_EXDE00_15	06/12/2017
Risk Assessment for Leak Testing	Action 3. 351700DFPA01936_EXDE00_13	09/01/2018
Livelihood Restoration Termination of Food Aid Strategic Plan	2018_08_14 FOOD AID TERMINATION STRATEGY FINAL	14-08-2018
Demobilization Plan for Ghanaian Workers	presentation	2018

Document Title	Reference/Company	Issue/Effective Date
OCTP Sustainability and LC update 4 th IESC Audit	SLC Update for IESC Audit_Rev 00-2_FINAL (presentation)	September 17 – 20, 2018
OCTP Development Project Engineering Change Form	3515_01_EC_ES_EG_073-Gas Export Sealine Ready for Production_SIGNED COPY	26/07/2018
OCTP Fisheries Management Coordination Committee Terms of Reference	17_07_2018_REVISEOCTP FISHERIES MANAGEMENT COORDINATION COMMITTEE TERM....pdf	03/07/2018
SUST-PRO-007 – Grievance Mechanism	2016_06_09_SUST-PRO-007 01-Grievance Mechanism-Final Signed	May 2016
SUSTAINABILITY & LOCAL CONTENT REQUIREMENTS FOR CONTRACTORS	2017_06_19 SLC Requirements for Contractors MHS Rev 00	19 June 2017
SUST-PRO-008 – Local Hiring	2017_11_08 SUST-PRO-008 01 – Local Hiring Procedure Final Signed	November 2017
Monitoring and Supervision of ENI Foundation Supported Health Facilities 2 nd Quarter Report July 2018	EF Monitoring 2018 Q2	20/07/18
ESAP Monitoring and Evaluation Report – Technip FMC and Sub-contractors (ORSAM & CONSAR) July 2018	ESAP Monitoring Evaluation Report–TechnipFMC (1)	03-08-2018
ESAP Monitoring and Evaluation Report – Technip FMC and Sub-contractors (ORSAM & CONSAR) July 2018	ESAP Monitoring Evaluation Report–TechnipFMC	03-08-2018
ESAP Plans Cascading_SPIE (presentation)	ESAP Plans Cascading new consolidation_14_08_18 (1).pptx	14 August 2018
Local Grievance Mechanism	Grievance Forms A B C.pdf	N/A
List of FMCC members in the engagement with IESC Auditor		N/A
OCTP Sustainability and LC update 4 th IESC Audit, September 17 – 20, 2018	presentation	N/A
SUST-PLAN-001 – Recruitment Employment and Training Plan	SUST-PLAN-001 01–	September 2017
SUST-PLAN-003 – Workers Management Plan	SUST-PLAN-003 01	September 2017
Demobilisation Updates WBG/IFC Audit_18 th September, 2018	presentation	18 th September 2018
Grievance Register	Worksheet in Grievance Mechanism SPIE	N/A
GHANA: Offshore Cape Three Points / Sankofa Gas Project (OCTP/SGP) World Bank Group Safeguards Supervision Mission Report	WBG Supervision Report 7-2018 Final clean.docx	July 2018

Document Title	Reference/Company	Issue/Effective Date
Procedure ZETL-EHS-PR-17 Emergency Preparedness and Response (extract)	Emergency Preparedness and Response – ZETL-EHS-PR-17	20/02/18
Collection, Transportation & Management of ORF Wastes	presentation	N/A
Construction Standards Sand Trap & Sump Pit at Road Crossing	351600DASA52011_EXCO04_42 abstract	14/02/2018
Notification – Change in Construction Methodology of Landfall Termination End (LTE),	Eni Letter ref. GR/MD/2018/04/692	13 th October 2017
Notification: GES Installation – HDD Execution Challenges/Simplified Shore Approach Methodology	EPA Letter ref. CE 2178/03/53	17 th April 2018
RE: GES Installation – HDD Execution Challenges/Simplified Shore Approach Methodology	ENI GAHAN LETTER REF. GR/MD/2017/10/1852	7 th May, 2018
RE: Notification of Change in Construction Methodology of Landfall Termination End	EPA letter ref. CE2178/03/25	December 8, 2017
Emergency Response Exercise Plan Oil Spill Response Drill 3 rd Level Emergency Drill – Eni Ghana	NA	24 March 2018
ESHMP Commissioning and Development Drilling Phase - Update requirements	ESAP Document List 060918	06/09/2018
Onshore State of Environmental Observations Turtle Biodiversity Action Plan	GWS -presentation	N/A
Overview of Avian Presentation	GWS- presentation	N/A
State of Environmental Observations Marine Mammals and Sea turtle Biodiversity Monitoring	GWS-Marine Mammals and Sea turtle audit presentation	N/A
ISO 14001 audit report Rapporto Di Audit 18 GE 102 ME	Rina	16/05/2018
OHSAS 18001 audit report Rapporto Di Audit 18 GE 66 MS	Rina	16/05/2018
Report of Validation Mission on Evaluation of Livelihood Restoration Plan Implementation	Eni Ghana and VUGL (SUST-REP-MR)	18 April 2109

APPENDIX 3

MONITORING VISIT ITINERARY

IESC Monitoring visit to the OCTP Project, week commencing 20th May 2019

	HSE	Soc
Mon 20 th May (Accra)	<p>Opening Meeting</p> <ul style="list-style-type: none"> - safety briefing - introductions - scope of monitoring visit and logistics (08.45-09.30) <p>Eni to present project status update including:</p> <ul style="list-style-type: none"> - main facilities - post lay trenching - status of drilling - TTIP (09.30-10.30) <p>HSE and SLC organograms</p> <ul style="list-style-type: none"> - roles and responsibilities for production phase - Contractors (10.30-10.45) <p>TTIP community safety issue (10.45 – 11.15)</p> <p>Security Management (11.15 - 14.00 with lunch in between), meeting with Security Manager:</p> <ul style="list-style-type: none"> - Fishing boat incursions, - MOUs, - ORF fencing - security providers, - SMP status etc. <p>Suggest SLC join given overlap with social issues</p> <p>Management of cumulative impacts (14.00-14.30)</p> <p>Internal audit programme/ findings (14.30-15.00)</p> <p>Update on waste water treatment optimizations for FPSO and Drill Ship (15.00 – 15.30)</p> <p>HSE statistics/performance (15.30 - 16.30)</p> <p>MoC register including (16.00 -16.45):</p> <ul style="list-style-type: none"> • Clarity on the MOC 'BoQ for LRP support services – dressmaking and cold store' <p>Permitting status update (16.45-17.30)</p>	<p>See HSE column</p> <p>Grievance management data (10.45 – 11.15)</p> <p>Lunch (see opposite)</p> <p>See HSE column</p> <p>LR Programme (14.00 - 15.00)</p> <ul style="list-style-type: none"> - Termination of transitional food aid/ Implementation of the 'Livelihood Restoration Termination of Food Aid Strategic Plan' - LRP Support Services delivery: income generation streams and overall progress - LRP Transitional support: health and education components - LRP audit (approx. 1 hour) <p>Community Investment Strategy and Quick Impact Projects (15.00 -15.30)</p> <p>Stakeholder engagement approach for operations phase (15.30 - 16.00)</p> <p>Community Labor Relations Officer (16.00-17.00):</p> <ul style="list-style-type: none"> - Demobilization issues ('final' wages/bonus payments; audits)

		<ul style="list-style-type: none"> - Worker Grievances/audit - Demobilized DAoI workers and integration into rural economy - Local recruitment for operations phase <p>Fishery Management Plan Delivery Officer (17.00 - 18.00):</p> <ul style="list-style-type: none"> - Fisheries issues - Current/future challenges - 'Abandoned' anchors and net damage: Status update
Tues 21st (Sanzule)	<p>Travel to Takoradi (depart 0640)</p> <p>AM (from 11.00) Tour of ORF facilities – general walkover of the site with particular emphasis on:</p> <ul style="list-style-type: none"> - RoW reinstatement - Beach crossing area - community water wells (Sanzule) <p>Lunch (eni canteen) (13.00-14.00)</p> <p>Tour of ORF facilities (14.00 – 16.30) – general walkover of the site with particular emphasis on</p> <ul style="list-style-type: none"> - Drainage ditches and sediment traps (hydraulic connectivity for swamp areas) - Top soil stockpiles - New security fencing - Waste facilities – temporary storage - Other areas for reinstatement (progress) - Any areas of ongoing construction <p>Meeting with contractors (contractors active on site) (16.30 – 17.30)</p> <p style="text-align: center;">Overnight in Takoradi</p>	<p>Travel to Takoradi (depart 0640)</p> <p>AM (from 11.00) Livelihood Restoration Working Group (11.00-13.00):</p> <ul style="list-style-type: none"> - Transitional Food Aid termination - LRP and income generation streams - Issues/challenges <p>Lunch eni canteen (13.00-14.00)</p> <p>LRP Support Services (with TNS Project Manager) (14.00 – 16.30):</p> <ul style="list-style-type: none"> - LR Programme implementation (staffing, progress, challenges) - Visits to selected 'option' sites - 'Random walk' chats with beneficiaries while visiting sites <p>Contractor management (SLC issues): progress with audits (16.30 – 17.30)</p> <p style="text-align: center;">Overnight in Sanzule</p>
Wed 22nd (Sanzule)	<p>Return to Accra (10.30 flight)</p> <p>Lunch</p> <p>PM Discussions with ESL and Eni Ghana on environmental monitoring (scope, plans, monitoring activities, results) (13.00 – 15.00)</p> <ul style="list-style-type: none"> - Invasive species - Reinstatement and soil erosion <p>Discussions with GWS and Eni Ghana on biodiversity (1500 – 17.30)</p> <ul style="list-style-type: none"> o Bird monitoring 	<p>Meeting with FMCC (0900 - 11-00)</p> <ul style="list-style-type: none"> - Grievances, implementation of FMP etc. <p>CIS QIPs (11.00 - 13.00)</p> <ul style="list-style-type: none"> - Meet selected members of 'Water committee' - site visit <p>Lunch</p> <p>Return to Accra (leave site around 14.00)</p>

	<ul style="list-style-type: none"> ○ Turtle monitoring (prior to post lay trenching) ○ SoW for the Additional Conservation Actions (with participation from FFI) ○ Offshore monitoring campaign (request report ahead of visit) ○ Marine mammals monitoring and findings ○ Strategy for NNL ○ Cumulative impacts (biodiversity) <p>Implementation of BAPs</p>	
<p>Thur 23rd (Accra)</p>	<p>GHG emissions monitoring (09.00 - 09.30)</p> <p>IESC Preparation time (09.30 – 11.00)</p> <p>No Surprises mtg (11.00 – 13.00)</p> <p>Lunch (eni office) (13.00- 14.00)</p> <p>Close out meeting (14.00 – 16.00)</p> <p>Wrap up/follow up (16.00 onwards)</p> <p style="text-align: center;">Return to UK (BA78 22.35)</p>	<p>Influx management (09.00 – 09.30)</p> <p>IESC Preparation time (09.30 – 11.00)</p> <p>No Surprises mtg (11.00 – 13.00)</p> <p>Lunch (eni office) (13.00- 14.00)</p> <p>Close out meeting (14.00 – 16.00)</p> <p>Wrap up/follow up (16.00 onwards)</p> <p style="text-align: center;">Return to UK (BA78 22.35)</p>

APPENDIX 4 STATUS OF ISSUES IDENTIFIED IN PREVIOUS MONITORING VISITS

This Appendix includes two tables. First, Table 1 presents those issues identified during the September 2018 site visit that were not closed out in the Q4, 2019 monitoring report, whereas Table 2 presents issues identified prior to the September 2018 site visit. In both tables, only 'open' issues, following finalisation of the Q4, 2018 IESC Quarterly Monitoring Report, were included and, subsequently, the right-hand columns have been updated based findings from the May 2019 monitoring visit. Within the ID column, an issue is identified by a composite reference number combining the issue number and year (for example, all Table 1 issues follow the format shown by the first issue, '001_03/18') and all Table 2 issues follow the format shown by the first issue, '021 2/17').

Table 1. Issues identified during the September 2018 site visit

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
001_09/18	Influx management	Development of a more robust method for determining occurrence and extent of influx to DAoI communities.	PS1 Construction and Operations	As a supplement to its existing method based on construction of new houses, Eni Ghana to consider adding the following actions: Undertaking a periodic survey of a sample of houses, in each village, to count the number of people residing in the houses; and Extending village boundaries to encompass the main connecting roads that connect them and then counting houses and residents within a sample of houses (as per the survey work for the villages).	Minor	Closed (Note: Eni Ghana has not extended village boundaries to encompass the main connecting roads. In the IESC's view this does not detract significantly from the results of the method used to decide on the extent of influx to date)
002_09/18	H&S observations – use of rebar	Inappropriate and/or poor use of rebar to indicate presence of hazards.	PS1/PS2 Construction	Eni Ghana should encourage its contractors, including HSE supervisors, to consider the suitability of use of rebar/positioning of rebars to protect against certain hazards. For example, higher visibility/barriers will be more appropriate in certain situations.	Minor	Closed (IESC revisited the area and found no inappropriate use of rebar or similar hazardous practices)

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
003_ 09/18	HSE observations- Consar workshop	Use of soft-toed wellington boots in preference to steel toe capped boots provided. The elevated storage of diesel which could result in injury and/or loss of containment. Minor spillage at generator indicates poor housekeeping	PS1/PS2 Construction	The use of PPE must be fully enforced at all times when working in hazardous areas. The need for/risk associated with elevated storage of diesel should be assessed. Drip trays should be used when refuelling the generator.	Minor	Closed (the IESC revisited the site and did not witness similar poor practice)
004_ 09/18	TTIP QRA	The risk posed to community members living near the Tema TRMS will most probably result in the need for relocation of structures and residents. Eni Ghana's responsibility and level of influence over WAPCo (the operator) is unclear.	PS1, PS4 Operations	Eni Ghana's responsibility and ability to influence any future relocation needs to be clarified and agreed between Eni Ghana and the WBG.	NA	Superseded (see 002_5/19)
005_ 09/18	Management of change procedure - general	MoC documentation has been produced/is being produced; however, the documentation is not always prepared/completed ahead of changes made, and therefore HSE and S implications are not always documented in time to inform the changes.	PS1 Construction	Comprehensive MoC documentation should be produced, with full consideration of all potential impacts, prior to changes being initiated.	Moderate	Closed (no incidence of MoC documentation lagging behind the implementation of changes)
006_ 09/18	Operational readiness	The ESHMP refers to the Offshore Hydrotest Disposal Plan despite hydrotesting being completed prior to reissue of the ESHMP.	PS1 Operations	Eni Ghana should confirm all hydrotesting is complete, and if this is the case, remove the Offshore Hydrotest Disposal Plan from the ESHMP.	Minor	Open (verbal confirmation provided – to be closed once documentation reflects Eni Ghana's intent)

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
		Other socio-economic plans referenced in the ESMHP are yet to be updated for operations.				
008_09/18	Environmental monitoring sampling points	An ambient air sampling location is located upwind of the main emissions sources and therefore likely to be of little use in monitoring any impacts to ambient air quality originating from the Project.	PS1 Operations	The location of sampling points for operations phase monitoring should be reviewed and revised as necessary based on operational emission sources, sensitive receptors and zones of maximum impact identified in predictive air quality studies.	Minor	Open Sampling locations are unchanged at the time of the May 2019 visit.
009_09/18	Labour management	Effective operation of the Workers' Grievance Mechanism	PS2 Construction and Production	Eni Ghana to undertake an audit, focusing on the timescale/s taken to close-out grievances submitted via the Workers' Grievance Mechanism, and based upon the results, amend the Grievance Mechanism to ensure that resolution and close-out is reached as quickly as possible while maintaining the operational principle underpinning the Workers' Grievance Mechanism.	Moderate	Closed
010_09/18	Labour management	Reducing risk of future labour and community unrest	PS2 Construction and Production	Implementation of a series of labour audits to confirm that all contractors have met their contractual obligations to their workers and, in particular, have paid their workers in full at the end of the construction period (now extended to at least March 2019).	Moderate	Closed

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
011_ 09/18	Labour management	Ambiguity and uncertainly concerning workers' rights and responsibilities in different contractors' contracts	PS2 Construction and Production	Continue to work toward standardization of employment packages, especially regarding new contractors/sub-contractors and cascading of the workers' Grievance Mechanism to new contractors/sub-contractors.	Minor	Closed
012_ 09/18	Labour management	Reinforcement of induction training on worker terms and conditions of employment and worker rights and responsibilities	PS2 Construction and Production	Amend the Worker Management Plan to contain a requirement for repeat refresher training on worker terms and conditions of employment and worker rights and responsibilities (as provided to new recruits during induction) and then implement the refresher training according to the schedule set out in the revised Worker Management Plan.	Minor	Open (The Workers Management Plan -Production [SUST-Plan-003] includes this item as being subject to refresher training. The IESC will seek to close this item after inspection of Eni Ghana's corrective action log during the next IESC monitoring visit)
013_ 09/18	Labour Management	Monitoring of the demobilisation process is required under the Demobilisation Plan, but the method to be used is not provided in detail	PS2 Construction	Develop a procedure for monitoring the demobilisation process (data collection, analysis and reporting) which incorporates the results from the recommended grievances audit and the series of labour audits (see recommendations in the rows above).	Moderate	Closed
014_ 09/18	Community water quality	Eni Ghana/ESL has not undertaken water level/drinking water quality monitoring from community wells.	PS3	Eni Ghana should clarify its position with respect to the monitoring of water quality from community water supplies and fulfil the requirements of the	Minor	Open Given that the community water supply project for Krisan, Sanzule and (old)

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
		<ul style="list-style-type: none"> Eni Ghana indicated that it was not part of ESL's scope to analyse water quality for drinking water parameters, but instead this was the responsibility of the SLC team. 	Construction and Production	Environmental Monitoring Programme (2017).		Bakanta became operational in Q4 2018, monitoring of community wells is of less significance, unless the wells are still being used for drinking water
015_09/18	Project Security SMP	<p>The Project SMP requires substantial revision following the labour unrest in Q1 2018 and, also, in response to the IESC's finding that offshore security provisions have not changed since March 2018 (with limited change in the effectiveness in preventing canoe incursions into the FPSO exclusion zone).</p> <p>Perceived Project need for state-sponsored security back-up provision for the operational ORF.</p>	PS4 Construction and Operations	<p>A revised and updated risk assessment is to be undertaken and the Project SMP amended accordingly and re-issued. This revision needs to take account of all pertinent international and O&G sector guidance on managing security and be aligned with other Eni Ghana plans that impinge on security-related issues (such as the Fisheries Management Plan and the Marine Traffic Management Plan).</p> <p>A MoU to be reached, as soon as possible on the use of State actors (police and military) in the protection of onshore assets and personnel (especially the operational ORF). This MoU to be based, to the extent practical, on international and O&G sector guidance; such as IFC's (2017) Good Practice Handbook entitled 'Use of Security Forces: Assessing and Managing Risks and Impacts: Guidance for the Private Sector in Emerging Markets'.</p>	High	<p>Superseded</p> <p>(A draft of the revised and updated Project SMP was prepared in December 2018 but has not yet been finalized and approved. The IESC will seek to close this item after inspection of Eni Ghana's corrective action log during the next IESC monitoring visit.</p> <p>An MoU has not yet been signed.</p> <p>See Table 5 for a redrafted version of this recommendation).</p>

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
016_ 09/18	Project Security Management Plan – fishing vessel incursions	Incursion of fishermen into exclusion zones	PS4 Construction and Operations	Efforts to enforce exclusion zones must continue/new initiatives need to be sought. Eni Ghana should continue liaison with other O&G operators in the region (and consider experience from other West African regions and those beyond West Africa to identify effective practices that may be transferable to OCTP. <ul style="list-style-type: none"> • Continue with efforts with Ghanaian authorities, such as GMA and GNPC, to expedite agreement on measures and mechanisms that can improve offshore security in both the short and long-term (recognizing that a sustainable long-term solution/s may not be implemented for a number of years). 	High	Open (The draft SMP of December 2018 confirms that the recommended 'efforts' are continuing)
017_ 09/18	Severance	The erection of additional fencing at the onshore Project still poses a risk, albeit limited, that access of local people to land and resources that are a part of their livelihood strategy might be impeded.	PS 1, PS 4 and PS 5 Construction and Operations	Eni Ghana continues to check the potential impacts of the additional fencing on access routes (with reference to ESHIA commitments) and, if necessary, implements design/location changes to avoid impeding access and/or actions that reduce the adverse impact/s to an acceptable level.	Minor	Closed (closed on the basis that severed paths have not been observed and there have been no complaints made)

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
018_0 9/18	Security Provision	TechnipFMC will complete its work by December 2018 and its security provider (DFI) employs about 30 security guards many of whom are local. G4S will be providing all security from January 2019. Previously there were local-level concerns/unrest about the transfer of jobs.	PS4 Construction and Operations	The previous transition of security provision between Real Life Security and G4S to be reviewed by Eni Ghana, TechnipFMC and G4S to identify lessons learnt to try to ensure a smooth handover which avoids any labour/community unrest	Minor	Open
019_ 09/18	Livelihood Restoration Transitional Support Food Aid	Decision/s on terminating food aid need/s to be based on credible and shared evidence of livelihood restoration progress.	PS5 Construction and Operations	Eni Ghana to ensure that the evidence base to be used to assist determining the date for food aid termination is robust, credible and justifiable. Requires careful examination of the method to be used to acquire the needed data and community agreement to the key features of the method such as indicators of livelihood status to be used and 'notice periods' prior to food aid termination.	Moderate	Superseded (See recommendations in Table 6)
020_ 09/18	Livelihood Restoration Transitional Support	Those eligible for transitional support food aid are eligible for health and educational support; including payment of costs associated with the National Health Insurance Scheme and fees required for school enrolment. These two measures are now separated from the LR Programme (that is, they are no longer focused only on those eligible for Transitional Support) and alternative measures with a wider	PS5 Construction and Operations	Eni Ghana to ensure that: Those eligible for transitional support receive an equivalence in terms of 'benefits' so that they are not 'losing out' by the changes underway It is ready to provide a justification to counter any potential criticism that funding available to those eligible for Transitional Support has been	Moderate	Closed The CIS will include targeted assistance to PAPs.

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
		community focus (but still within the DAoI) are planned instead.		reduced by the changes to the Transitional Support programme.		
021_ 09/18	Livelihood Restoration (LR) Programme 'Support Services'	Identifying sites with acceptable levels of PAP access will become more difficult over time.	PS5 Construction and Operations	Eni Ghana to develop and then implement a GIS-based mapping tool integrating PAP locations, access routes and option site locations, to assist option site location decision-making.	Moderate	Closed
022_ 09/18	Livelihood Restoration (LR) Programme 'Support Services'	Eni Ghana intends to terminate most transitional food aid by December 2018 and by March 2019 for those PAPs not included in the termination occurring in December 2018. There are risks to achieving these dates for termination of all food aid. Vulnerable PAPs are not mentioned in the 'Termination Strategy'. There is a risk that vulnerable PAPs may not emerge for the termination of food aid with an enhanced livelihood status.	PS5 Construction and Operations	Eni Ghana to establish a risk register, to identify and monitor risks such as achieving the intended termination dates and ensuring the livelihood status of vulnerable PAPs, and updates the risk register every 2 weeks. Eni Ghana to review its monitoring strategy to determine its ability to clearly identify changes in the livelihood status (such as incomes, revenues, expenditures) of vulnerable PAPs. Depending on the results of this review, changes should be made to the monitoring strategy.	High	Superseded See Table 6 for a new recommendation on tracking PAP progress toward livelihood restoration
023_ 09/18	FMCC	There is a sense of dissatisfaction amongst FMCC members that their contributions to the Project has not/is not being recognized in an acceptable manner. There is a risk to the future viability of the FMCC as an interlocutor between those following fisheries-	PS5 Construction and Operations	Eni Ghana to consider finding a way to avoid this dissatisfaction from becoming a serious concern that could threaten the viability of the FMCC.	Minor	Closed

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
		based livelihoods and the Project (with wider reputational repercussions amongst DAoI community members).				
024_ 09/18	Biodiversity: Sea Turtle Biodiversity Action Plan	Eni Ghana has requested GWS to complete additional monitoring throughout the proposed additional construction activity that will be undertaken to lower the pipeline to rectify the existing partial exposure. The Sea Turtle BAP specifies that this monitoring should include pre, during and post-construction.	PS6 Construction	Ensure that Sea Turtle monitoring meets the specification provided in the Sea Turtle BAP: <i>" Monitoring undertaken daily for 30 days prior, during and 30 days after the construction of the pipeline laydown and tunneling is undertaken."</i>	Minor	Closed (monitoring was performed 30 days prior to post lay trenching and then continued for a further 60 day during and following the activity)
025_ 09/18	Biodiversity: Sea Turtle Biodiversity Action Plan	Security personnel are not completing patrols of the beach in the concession at night during peak nesting period (June–August) as part of their regular circuit.	PS6 Construction and Operation	Eni Ghana to ensure that the all security personnel are trained and motivated to perform these patrols. It would be appropriate for GWS to provide this training. As the security contract for the operational phase is being handed to a new provider (G4S), additional training and motivation is required to implement the security patrols.	Minor	Open
026_ 09/18	Biodiversity: Sea Turtle Biodiversity Action Plan	It is understood that GWS has submitted a proposal to Eni Ghana for the completion of a community conservation programme and that this is being currently under consideration in Eni Ghana's procurement process	PS6 Construction and Operation	IESC recommends that the GWS proposal is shared with the IESC and Lenders for review and that a timetable for implementation of a community conservation programme is confirmed.	Moderate	Open
027_ 09/18	Biodiversity: Avian	The Avian BAP includes the action <i>"Engage and contribute to existing community-based Vulture conservation</i>	PS6	It is recommended that Eni Ghana progresses a long-term programme of community-	Moderate	Open

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
	Biodiversity Action Plan	<i>programme.</i> It is understood that some engagement sessions were completed in 2017, but that Eni Ghana has no existing plans to progress this action.	Construction and Operation	engagement focussing on vulture conservation, possibly targeted to the nearby villages known to hunt vultures.		
028_ 09/18	Biodiversity: Marine Mammal and Sea Turtle Monitoring Programme	Overall, it appears that the level of marine mammal observations completed to date has not met the effort specified in the Marine Mammal and Sea Turtle Monitoring Programme for the OCTP Project.	PS6 Construction and Operation	It is recommended that future monitoring efforts are increased with an increased frequency of dedicated watches by trained and experienced marine mammal observers to reflect a more robust interpretation and implementation of the monitoring programme.	Moderate	Closed
029_ 09/18	Biodiversity: Erosion Control and Run-off into Wetlands	Erosion and sediment transfer still poses a risk in some areas where the ORF site drainage discharges to adjacent wetlands.	PS6 Construction	It is recommended that sloping areas receiving water discharge are stabilised as soon as possible, ideally using soft-engineering techniques. It is also recommended that wetland areas that received sediments from erosion that took place during the construction period should be assessed by an ecologist as to whether restoration is required (e.g. excavation of deposited sediments).	Minor	Closed
030_ 09/18	Biodiversity: Erosion Control and Run-off into Wetlands	A recently constructed sediment trap, inspected during the visit, was unlikely to be effective in capturing sediments.	PS6/PS3 Operations	Eni Ghana should investigate and modify the trap (and others if necessary) to increase the residence time of surface water runoff to ensure correct	Minor	Closed (IESC revisited the site and can confirm the design has

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
				functioning of the trap. Inspection and disposal of sediments also needs to be considered during operations to ensure traps continue to function effectively.		been improved/traps will be effective)
031_ 09/18	Biodiversity: Reinstatement and Revegetation	It is currently unclear when reinstated topsoil will be revegetated, which methodology will be employed and who will be responsible. This poses an increased risk of invasive species, soil erosion and sediment transfer to adjacent wetlands.	PS6 Construction	The revegetation should be implemented as soon as practicable after reinstatement of topsoil, in accordance to a Reinstatement and Revegetation Management Plan that meets Eni Ghana's Reinstatement and Revegetation Standard. It should be confirmed who will be responsible for the revegetation, whether the Contractor or Eni Ghana. Monitoring for invasive species should be included in the Operations Phase Environmental Monitoring Programme until the risk from invasive species subsides.	Minor	Superseded Significant reinstatement work has taken place. It is unknown whether erosion and sedimentation of nearby water bodies has been significant – ESL reports suggest not. Reinstated areas are well vegetated however invasive species are present. Natural succession should reduce and then remove prevalence of invasive species (as noted elsewhere on the site) however monitoring is needed to confirm this natural succession and eradication of invasive species.
032_ 09/18	Biodiversity: Environmental Monitoring of Wetland Water Levels and Vegetation	Culverts have been installed beneath the RoW to maintain the hydrological connectivity and functioning in the adjacent wetland natural habitats.	PS6 Operation and Operation	It is important that the water levels in the wetlands <u>either side</u> of the RoW are monitored long-term to check that hydrological connectivity and functionality has been maintained and that changes	Minor	Closed The concern over hydrological connectivity remains; however, there is no evidence of an impact to date and the Project has committed to continue its monitoring.

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed/Superseded (IESC Opinion)
				are not impacting the wetland habitats.		Monitoring in drier periods will be particularly important because of the height of certain pipes/culverts intended to maintain water levels either side of access roads.
033_09/18	Biodiversity: No Net Loss of natural habitats	Identification and Assessment of Potential No Net Loss Options is scheduled to be completed by Q1 2019.	PS6 Construction and Operation	It is recommended that Eni Ghana initiate the prescribed programme as soon as possible. This would also potentially reduce the level of compensation required to offset for the time-lag between habitat losses and the delivery of the offset.	Moderate (becoming High if not completed according to schedule set out in the management plan.)	Open

Table 2. Issues identified prior to the September 2018 site visit

ID	Aspect	Issue Description	Standard/ Phase	Previous IESC Recommendations	Signifi- cance	Open/Closed (IESC Opinion)
021 2/17	Contractor Management - security	The extent of the involvement of the Security Manager in the procurement of contractors is limited.	PS 4 Construction and Operation	Ensure that the Security Management Plan will contain minimum requirements to be met by contractors and that these requirements will be factored into procurement processes (and subsequent contractor management) with regards to security provision.	Moderate	Open Prior to the labour unrest of March 2018, an approved Project Security Management Plan was in place. This approved SMP included the 'minimum requirements'. However, following the labour unrest of March 2018 the SMP requires further updating, revision and approval. Currently, as of end May 2019, this remains an OPEN action. Appendix Q needs to be revised to reflect the final version of this Plan and then the revised Appendix Q needs to be incorporated into all documentation provided to potential contractors.
008 9/17	Human Resources Policy	Eni Ghana does not have a Human Resources Policy that is tailored to its operations in Ghana.	Construction and Operations PS2	Prepare, approve, disseminate and implement an Eni Ghana – specific Human Resources Policy. This policy to include explicit statements that child and forced labour will not be employed and	Minor	Open A policy is still required. It is recognized that the Recruitment, Employment and Training Plan and Worker Management Plan

				trafficked persons will not be hired.		both cover the issues, mentioned in the column opposite, to varying extents.
009 9/17	Forced labour	The Recruitment, Employment and Training Plan does not contain a clear commitment that forced labour will not be employed.	Construction and Operations PS2	The Recruitment, Employment and Training Plan to be amended to contain a clear commitment that forced labour will not be employed.	Minor	Open No revised Recruitment, Employment and Training Plan incorporating the required commitment has been prepared.
010 9/17	Accommodation Provision	No Eni Ghana accommodation policy exists.	Construction and Operations PS2	Prepare, approve, disseminate and implement an Accommodation Policy or incorporate it into a (combined) Human Resources and Workers' Accommodation Policy.	Minor	Open No Accommodation Policy of Human Resources Policy has been prepared. A stand-alone policy or one combined with a Human Resources Policy is still required
019 9/17	Contractor Management - security	Appendix Q is not always issued to all contractors.	Construction and Operation PS4	Appendix Q to be updated to reflect the approved and 'signed off' Security Management Plan requirements (approval and 'sign off' has not yet occurred) regarding application of the Voluntary Principles for Security and Human Rights to procurement and management of security providers. Once updated and revised Appendix Q to be issued with all ITTs/model contracts to prospective contractors (with a proviso that a contractor can seek	Moderate	Open As the Project Security Management Plan is undergoing a second revision, Appendix Q will need to be updated accordingly.

				Eni Ghana approval that security requirements are not applicable to its operations).		
022_9/17	Influx Management	The potential effectiveness of the Influx Management Plan is threatened by the limited progress to date in establishing the collaborative Multi-Stakeholder Forum for managing cumulative impacts, including coordinated actions to manage influx.	Construction and Operations PS5	Eni Ghana must continue to support WBG efforts to establish a collaborative Multi-Stakeholder Forum. Establish whether the 'influx management approach' prepared by WRCF, is an appropriate basis for revising the Influx Management Plan by end of Q4 2017.	Moderate	Open The Multi-Stakeholder Forum is not yet established and functioning (See comment for item ID 027_2/17). Thus, this element remains OPEN
006_03/18	FPSO walkover	Large quantities of fuel/other hydrocarbon-based products were stored without localised secondary containment.	PS1 Operations	Project should consider localised secondary containment around the stockpile and reducing the number of drums stockpiled on board the FPSO.	Minor	Open IESC will seek to close this item following review Eni Ghana's corrective action log during the next site visit
007_03/18	FPSO walkover	A 200-litre drum containing unknown contents was present. The IESC understands the drum has been on board since the FPSO left Singapore.	PS1 Operations	Efforts are required to identify the contents of the drum. The drum and its contents should be safely disposed in accordance with the approved waste management plan.	Minor	Open IESC will seek to close this item following review Eni Ghana's corrective action log during the next site visit
020_03/18	Waste water discharge	The 2017 AMR [and subsequent QMRs] reports: <ul style="list-style-type: none"> • exceedances of WBG and Ghanaian effluents standards for BOD₅, COD, total nitrogen and total phosphorous at the Maersk Voyager; and 	PS3 Construction	Eni Ghana should provide the WBG and IESC an update on this issue, further describing remedial actions and the results of any additional monitoring performed to confirm the effectiveness of remedial actions is anticipated at the end of April 2018.	Minor	Open Corrective actions, including upgrades to the STPs have been initiated (Sept 2018).

		exceedances of total coliform bacteria at the FPSO.				This issue remains open until effluent levels fall back into compliance with applicable standards.
023_03/18	Project Security Management Plan	Following the recent labour unrest and the IESC finding that offshore security provisions are not effective in terms of preventing canoe (fishermen) incursions into the FPSO exclusion zone, the Project SMP requires revision.	PS4 Construction and Operations	<p>A revised and updated risk assessment is to be undertaken and the Project SMP amended accordingly and re-issued. This revision needs to take account of all pertinent international and O&G sector guidance on managing security and be aligned with other Eni Ghana plans that impinge on security-related issues (such as the Fisheries Management Plan and the Marine Traffic Management Plan).</p> <p>A MoU to be reached, as soon as possible on the use of State actors (police and military) in the protection of assets and personnel. MoU to be based, to extent practical, international and O&G sector guidance; such as IFC's (2017) Good Practice Handbook entitled '<i>Use of Security Forces: Assessing and Managing Risks and Impacts: Guidance for the Private Sector in Emerging Markets</i>'.</p>	High	<p>Superseded)</p> <p>See item 015_09/18 above</p>
024_3/18	Project Security Management Plan – fishing vessel incursions	Incursion of fishermen into exclusion zones	PS4 Construction and Operations	Efforts to enforce exclusion zones must continue/new initiatives must be sought. Eni Ghana should consider liaison with other O&G operators in the region to	High	Open

				<p>understand whether they have experienced similar issues, and if so, what measures have been used to enforce exclusions zones.</p> <p>Efforts to be renewed to try to progress reaching agreement on an MoU with the Ghana Navy with regard to mutual and shared responsibilities for preventing incursions and resolving them promptly when they occur.</p>		<p>Efforts continue to agree MoUs with the Police, Army, and the Navy. Recently, discussions have broadened to include Ghana Maritime Authority and a sector-wide offshore security initiative being advanced by Ghana National Petroleum Corporation (GNPC). NOTE: a revised version of this item is included in the May 2019 Monitoring Report</p>
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APPENDIX 5 PHOTOLOG



Photo 1. Plant nursery – well stocked and managed



Photo 2. Plant nursery –species in accordance with Flora Conservation Plan ready for planting



Photo 3. Drainage channels – vegetated to reduce erosion and sedimentation of receiving waters



Photo 4. Good Safety practice – use of PPE, harness and HSE presence (indicated by red hard hat)



Photo 5. Location of buried Gas Export Sealine (no evidence of post lay trenching)



Photo 6. Reinstatement of beach area following post lay trenching of pipeline – coconut saplings



Photo 7. Reinstatement of pipeline bund – use of geotextile, seeding and plastic mesh to prevent erosion and deter invasive species



Photo 8. An area at LTE awaiting reinstatement once alignment of permanent access road is confirmed.



Photo 9. Reinstatement of area used to stockpile topsoil



Photo 10. Exposed pipes intended to maintain hydrological connectivity of swamp area



Photo 11. Revegetation of previously exposed earth mound covering gas pipeline close to tie in with GNGC pipeline – presence of invasive species



Photo 12. New sediment trap(s) installed to reduce sedimentation of receiving water bodies



Photo 13. HSE signage at the permanent accommodation construction area



Photo 14. Physical and visual barriers around open pits



Photo 15. Ambulance on a routine drive by to ensure access within the site is free from obstructions



Photo 16. Mixed waste in bins labelled 'plastic'



Photo 17. Compressed gas cylinders in a locked area but individual cylinders were unsecured



Photo 18. Large amounts of stockpiled earth from the permanent accommodation construction area



Photo 19. Remediation (swamp regeneration) at the ORF surface water outfall area

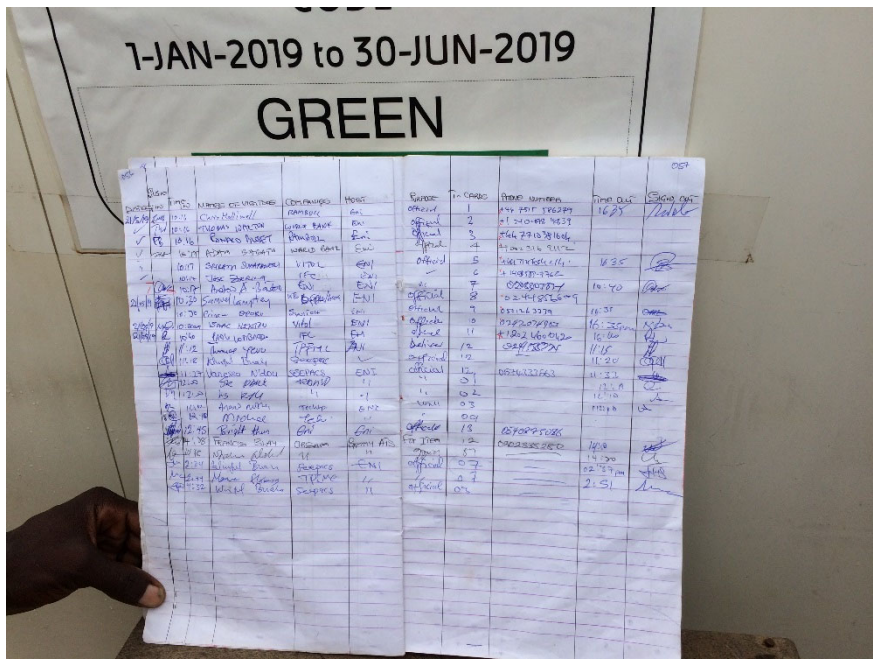


Photo 20. Visitors signing in book and T-card system (temporary accommodation security area)