

# **MEMORANDUM**

**To:** C/O Executive Director  
Environmental Protection Agency  
Ganges Street, Sophia, Georgetown. Guyana.

**From:** Conservation International Foundation (Guyana) and Guyana Marine Conservation Society

**Date:** August 14, 2018

**Re:** Review of the Environmental Impact Assessment for Esso Exploration and Production Guyana Limited's (EPPGL) Liza Phase II proposed development

---

## **1. SUMMARY AND APPROACH**

Overall, the EIA demonstrated a good assessment of the project in identifying the expected impact categories to evaluate for offshore projects, and consideration of several good practice concepts, including adhering to the mitigation hierarchy, defining an area of Influence (AOI), considering cumulative impacts, evaluating ecosystem services and conducting stakeholder engagement. We however noted some key deficiencies and present those along with suggestions to enhance the EIA and the benefit of the implementation of the project. Our review is overall influenced by the nascent stage of the sector in Guyana, the country's plans to be a model in relation to the interface of hydrocarbon production and inclusive green economic growth.

The extremely rapid development of the oil and gas sector in a country that has no prior experience with the sector, places substantial pressure on the institutions required to regulate the industry. These institutions would be expected to develop the guidelines and systems for regulation, and to build their capacity to regulate the industry. We have noted the challenges in developing these guidelines and systems, the challenges of building and sustaining a robust system for review of EIAs, and the challenges in retaining and building the capacity of key entities in the process. These challenges will influence public trust in the process, even if the processes undertaken are exemplary and best-in-class. Further, unless built at a rate comparable to the development of the industry, there may be further erosion of trust leading to concerns over the ability of the regulatory framework will function in the best interest of the People of Guyana.

The development of the sector offshore in ecosystems that are poorly understood also present unique challenges especially when combined with the pace of the planned development. The conduct of a Strategic Environmental Assessment (SEA) of the sector. Additionally, the environmental data collection that is being undertaken in the marine environment by EIA consultants for the various oil and gas developments is exceedingly valuable because the paucity of research in the Exclusive Economic Zone (EEZ). Given the research is almost entirely new, it would have been possible to set up a data management system by which the EIA Consultants would have had to conform and use to collect and submit their data, so that future research could have built on each prior set of work and support further research activities. We continue to advocate for the establishment of such a data management system and to recommend that conformity to this system be made a requirement for EIA consultants.

## **2. SOCIAL AND ENVIRONMENTAL BEST PRACTICES AND STANDARDS**

This review of the Liza Phase 2 Environmental Impact Assessment (EIA) was guided by the following best practices and standards:

- a. [International Finance Corporation \(IFC\) Performance Standards \(PS\)](#) in particular: PS1 (*Assessment and Management of Environmental and Social Risks and Impacts*); PS3 (*Resource Efficiency and Pollution Prevention*); PS6 (*Biodiversity Conservation and Sustainable Management of Living Natural Resources*); and PS7 (*Indigenous Peoples*).
- b. [World Bank's Environmental, Health and Safety Guidelines \(EHS Guidelines\) for offshore oil and gas development](#)
- c. [IPIECA's oil spill preparedness](#)

### 3. GENERAL REMARKS

- a. **Abide by high standards:** Given the nature of the project, which is also the first of its kind in Guyana, the EEPGL development will set the bar for future exploration and development projects in the oil and gas sector. It is therefore paramount that the project abides by high industry standards to inform policy and regulatory decision-making in the country, thus setting the benchmark for high standards of accountability and good governance of the sector.
- b. **Adopt the precautionary principle:** This Project is the first oil and gas project to be developed to this extent in Guyana. The high level of complexity in the technical aspects of its operations, inherent high variability and complexity of oceanic systems (and more broadly, water as a medium) and the relative paucity of knowledge of Guyana's marine ecosystems, create conditions in which there could be far-reaching impacts. This warrants application of the Precautionary Principle encompassed in Section 4(a) of the Environmental Protection Act, (2006). Considering this principle, we recommend the use of independent, third-party monitors to periodically spot-check monitoring plans and data, as well as a structured independent research program that will allow for enhancing the information available, and therefore, better and more certain decision-making as time progresses. CI further reiterates its recommendation for an independent third-party audit of the project on a periodic basis to verify that the terms and conditions of the Environmental Permit are being followed.
- c. **Presentation of EIA findings in a user-friendly format:** We note the expressions of interest in presenting the findings of the ESIA in a user-friendly format during the 2017/2018 stakeholder meetings host by the EPA at the time of preparation of the Environmental Impact Assessment Guidelines for Offshore Hydrocarbon Exploration and Production. We are of the view that this was not adequately carried out, resulting in many stakeholders being unable to comprehend the information contained in the document to constructively comment on it. This lack of follow through has no doubt negatively affected the credibility of the Company and impressions of the proposed development.

### 4. METHODOLOGY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT, Chapter 4

- a. **Criteria for rating impacts should consider stakeholder's impact acceptability:** Best practice recognizes that the process for determining impact significance should effectively integrate value judgments and preferences of affected stakeholders and the

general public, regarding the acceptability of environmental and social risks. We note that this does not seem to have been applied within the EIA.

- b. **Impacts determined as having negligible significance should include a robust justification:** For impacts determined to have negligible significance, the EIA should explicitly state the reasons behind this classification. For instance, it would be essential to also assess the level of uncertainty associated with the predictions. We recommend that the significance of the projected impacts be assessed based on a matrix intersecting the likelihood of each impact occurring and the magnitude of the impact likely should it occur.
- c. **Impact reversibility should be addressed within the Impact Significance Rating Matrix:** Interpretations of Sections 4(a) and 11(5) of the Environmental Protection Act (2006) and the EPA's Environmental Impact Assessment Guidelines for Mining (2000), suggest that evaluation of reversibility of impacts is a non-negotiable component of an EIA. Therefore, it should be consistently addressed in the EIA within the Impact Significance Rating Matrix, possibly integrated within the evaluation of the magnitude of the impact.
- d. **Most valuable environmental and social resources/receptors for relevant stakeholders (even if impacts are determined as negligible in this project) should be considered for the cumulative impacts assessment:** Although negligible impacts from this project might not significantly affect a resource/receptor, when considered in combination with impacts from other ongoing and planned projects and sources of external pressure, it might become significant. We recommend that the cumulative impacts assessment consider the most valuable environmental and social resources/receptors determined by relevant stakeholders, independently of the significance determined by the EIA.

## 5. SCOPE OF THE ENVIRONMENTAL IMPACT ASSESSMENT, Chapter 5

- a. **Consider the risks and impacts assessment and potential conservation plans at the landscape/seascape level:** We welcome that the project's Areas of Influence (AOI) considers direct, indirect and cumulative impacts, as well as project impacts on ecosystem services upon which affected Communities' livelihoods are dependent. However, CI recommends a landscape/seascape analysis as a fundamental step in determining ecologically-appropriate mitigation options that align with broader conservation efforts in the region.
- b. **Environmental and Social Management Plan (ESMP):** Considering the oil and gas sector within Guyana is in its infancy, we reiterate the recommendation that the ESMP and its implementation be used as an organizational learning process in which the lessons experienced are fed back into policy, institutions and subsequent project designs, thus building the country's capacity to better manage such large-scale projects in the future.
- c. **Risk assessment and management:** As per IFC Performance Standards, in addition to an impact evaluation, the project should also implement a thorough assessment of risks in different scenarios and the management strategies.

- d. **The mitigation hierarchy should include “offsetting” and “compensation” as separate categories of control and should aim at achieving net gain:** This would reflect best practice in environmental assessment and management and would be needed to address residual negative impacts that cannot be further addressed via Avoiding, Reducing and Remedying strategies. This will also meet requirements under the application of the Polluter Pay Principle of Section 4(a) of the Environmental Protection Act, 2006. In addition, given the important precedent this project will set for the oil and gas and environmental sectors, as well as for the social and economic development of Guyana, it should aim at resulting in net positive social and environmental impacts and opportunities to Guyana. This is especially important as it is planned to occur in an area and ecosystem for which the knowledge of its ecological composition and function is relatively unknown.
  
- e. **Development of a Biodiversity Action/Management Plan (BAP/BMP):** Considering the high biodiversity value of the coasts of Guyana, as well as the potential uncertainties about project impacts, a stand-alone BAP/BMP would send a clear message to stakeholders about the company’s selected mitigation strategy, and its working philosophy and ability to operate responsibly in areas of known conservation value. EEPGL could also opt to incorporate biodiversity-related mitigation and management measures into more general Environmental Management Plans or Action Plans, but the risk in this case, is that commitments might appear less evident or buried among many others, and possibly be less focused.

## 6. DESCRIPTION OF EXISTING CONDITIONS, Appendices G, H, I, K, M, P

- a. **Baseline assessment:**
  - i. The **mixed-method approach** to compiling information on the existing conditions is appreciated. However, care must be taken to appropriately carry out aspects of that methodology. For example, with “consultation of public agencies and other stakeholders;” the identification and description of stakeholders must be done in a robust manner as per a Stakeholder Engagement Plan in place and ongoing.
  - ii. The **environmental studies include sampling of a greater group of species** than in the EIA for Liza Phase I, this responds to one of CI’s recommendations on this project. For example, CI had advocated for “additional sampling of marine taxa fish, marine mammals and other species of note (i.e. turtles)” which now appears in this EIA. However, some of the other comments presented in earlier reviews remain.
  - iii. **The marine mammal observation data presented is not robust** as it lacks structured attempts to catalogue these species and relies largely on opportunistic sightings from marine vessels over a period of 10 years. This method assumes that vessel captains can correctly identify species.
  - iv. **The turtle telemetry data presented is not robust** as this data was collected from few turtles and over only one nesting season. This data is therefore not indicative of the migratory routes all nesting species utilize. More robust data is needed to formulate a clearer picture.

- v. Recommendations that the **sampling area be widened to more appropriately assess baseline conditions of future areas potentially impacted by indirect or cumulative impacts were not implemented.** While the sampling sites were deemed to be representative of the immediate Liza PDA they do not discuss the area that could potentially be impacted from an indirect or cumulative perspective and therefore does not reflect the conditions in the entirety of the project's AOI.
  - vi. It was previously recommended that "additional sampling periods be carried out to better capture temporal variations in baseline conditions." While additional sampling has been proposed for various studies it is still not clear whether capturing seasonal or temporal variation has been factored in the studies associated with this EIA. **We suggest a more holistic and deliberate attempts to capture treatment of temporal variation in the text. One means of achieving this can be by including an additional column in Table 8.1** to better denote the studies done to date and when they were done, including aspects such as the season during which they were performed. This will allow for better and easier assessment of the robustness of sampling conducted and gaps can be clearly assessed.
- b. **Additional studies:**
- i. In addition to the traffic studies and the air quality monitoring we **also recommend addition of a noise pollution/subsea noise pollution study component** to gauge and track potential impacts of sound arising from project or project related activities.
  - ii. Considering current high uncertainties about marine biodiversity, ecosystems and the effects on them from offshore oil and gas development, we recommend **following a Precautionary Principle in execution of on-going monitoring programs for vulnerable species identified through the field studies**, even if residual impacts affecting them are considered negligible.
  - iii. The results of all these additional studies should help eventually inform a **Critical Habitat Assessment (CHA)** to determine if critical habitats are likely be impacted and to what degree.
  - iv. Given the potential for significant impacts to the Shell Beach Protected Area (SBPA) from unplanned events such as oil spills, we recommend that baselines be establish for the protected area, especially for the elements that would be the most affected by such events.

## 7. PROJECT GENERATED IMPACTS, Chapters 6, 7, 8, 9, 10

- a. We recognize that the EIA **references the World Bank's Environmental, Health and Safety Guidelines (EHS Guidelines)** for the evaluation and selection of resource

efficiency and pollution prevention and control techniques for the Project. However, we recommend the following:

- i. It is important to also **consider the risks and potential impacts on priority ecosystem services that may be exacerbated by climate change**, as per IFC PS4. For instance, socio-economic impacts on fisheries and fishing communities due to climate change which might also be exacerbated by the Project's exclusion zones.
  - ii. **Vessel offshore anchoring** might disturb seabed habitats; this is an additional project interaction with environmental resources/receptors that should also be **considered**.
  - iii. We welcome the commitment of the developer to not flare gas, except in cases of emergency, and to monitoring greenhouse gas (GHG) emissions of the project. This would be critical to support Guyana's low-carbon, green economic development ambitions. The Project should however **consider going beyond monitoring to offsetting its GHG emissions through investments in management of natural forests in protected areas and other effective means**.
  - iv. The proposed disposal of solid waste detailed in the EIA must take into consideration the already insufficient capacity of current **landfills in Georgetown; these may not have sufficient capacity for the additional waste the project will generate**.
- b. **Decommissioning:** Development of the **decommissioning plan should be informed by a socio-economic analysis** to better understand the cost and benefits, especially with respect to fisheries and fishing communities, of the different decommissioning alternatives.
- c. **Impacts from unplanned events (i.e. oil spill):** We consider that the rating of impacts on marine species, coastal habitats as well as communities and indigenous peoples from a potential oil spill or natural geological event **should be conservative and follow a precautionary principle**. We recommend evaluating these potential impacts from the perspective of the possible magnitude, alongside the likelihood of their occurrence. The likelihood of these event might be low but the magnitude and irreversibility of the impacts which would result should they occur could be very significant, as it could take decades for all these receptors/resources to fully recover.
- d. **Cumulative impacts:** The Precautionary Principle should also be applied when assessing potential cumulative impacts, given the additional exploration projects projected by EEPGL and other companies. The **project should actively manage, where feasible, the spatial and temporal overlap of their additional projects activities**.
- e. **Ensuring costs of expected activities and social benefits, unplanned events and/or unanticipated post-decommissioning environmental and social risks are covered:** Measures such as performance bonds, insurance agreements, escrow accounts, etc., should be considered to ensure costs of managing environmental and social risks from expected on-going events, unplanned events and/or unanticipated post-

decommissioning risks will be adequately covered, as well as all promised social benefits are delivered.

## 8. STAKEHOLDER ENGAGEMENT

### a. Consultation and participation:

- i. As per IFC Performance Standards, there should be robust stakeholder engagement during the life of the project. During the Liza Phase II EIA development process and the operations of Liza Phase I, EEPGL has been engaging with different stakeholders in different ways. We recommend that for each of those engagements the Project **ensures deliberative spaces and simple communication tools that are inclusive and tailored to the different audiences**, as well as **enables effective participation of vulnerable and underrepresented stakeholders**.
- ii. While declaring the stakeholder engagement process for the preparation of the EIA as robust, the document does not provide sufficient evidence to support the claim. Robustness of stakeholder engagement processes is also affected by the way they were conducted. Of importance is the treatment of usually disadvantaged and otherwise vulnerable groups, such as women, youth and indigenous people.
- iii. We also recommend that the project **ensures ongoing reporting to potentially affected communities and transparency about consultation reports**. These should capture stakeholder concerns and comments during all consultation activities and show how they were addressed or otherwise treated.

b. **Transparency:** The Project should consider **sharing more broadly the information collected from baseline and monitoring assessments** in ways that are useful for wider use by the EPA, the conservation community, academia and the general public. There is a great opportunity for EEPGL to contribute to significantly to increasing knowledge and understanding of the marine ecosystems and natural resources of Guyana.

c. **Indigenous peoples:** The Project should ensure the **Informed Consultation and Participation (ICP)** of the indigenous peoples about the potential risks, impacts and proposed mitigation actions pertaining the possibility of an oil spill. This can be effectively achieved through guidance and relationships with partners, such as indigenous NGOS, who have great experience and expertise in effective engagement with these communities. According to IFC PS1, an oil spill stemming from offshore drilling would constitute “(ii) impacts from unplanned but predictable developments caused by the project that may occur later or at a different location.” While the offshore drilling is not being developed on indigenous peoples’ lands per se, its adverse impacts (an accidental spill) could significantly impact the lands and resources traditionally owned or under the customary use of indigenous peoples. Therefore, ICP is required, and the case for **Free, Prior and Informed Consent (FPIC)** as the preferred course of action is a strong one, because of the following:

- i. The potential unplanned event (oil spill) could impact the Indigenous Peoples' related natural resources (particularly the marine ones given that they are fishing communities)
- ii. FPIC would allow the project to develop more robust required emergency preparedness plans, mitigation plans, and compensation schemes.
- iii. The indigenous communities in question may fall into the particularly vulnerable status, thereby requiring extra measures per IFC PS1
- iv. The benefit would outweigh the cost over the long-term

## 9. ENVIRONMENTAL AND SOCIOECONOMIC MANAGEMENT PLAN

- a. **The Project should aim at achieving net gain for biodiversity and communities:** Regardless of whether the project would cause significant residual impacts from any planned activities, we recommend that it adopts a net gain goal for biodiversity and communities, given current uncertainties on marine biodiversity and ecosystems, and the potential future additional oil and gas development which might increase the effects of indirect and cumulative impacts. The project could achieve net gains by identifying additional opportunities to enhance habitat, conserve biodiversity, support communities' livelihoods and well-being, and contribute to research and knowledge about the country's marine and coastal resources.
- b. **Socioeconomic management plan:** The Project should ensure assistance to build capacity of local businesses (to an accredited level acceptable to EEGPL) to cater to the needs of the sector, e.g. Solid Waste Management (incineration services, solid waste disposal, treatment of hazardous chemicals, etc.), Oil Spill Wildlife Response (training at the University or schools of Veterinary Medicine how to care for, clean and rehabilitate oiled wildlife).
- c. **Monitoring should be carried out on three levels and ensure adaptive management:** These are a) in field monitoring of relevant biodiversity values; b) monitoring of implementation and effectiveness of mitigation measures and management controls; and c) monitoring of status of non-project related ongoing threats to biodiversity values in the project's vicinity and the extent to which the project might exacerbate them. Finally, the Project should ensure adaptive management practices to adjust methodologies and practices to the ways ecosystems and biodiversity are being managed and monitored. Additionally, the following suggestions could ensure a robust and impactful monitoring programme:
  - i. Increased training for ANY vessels (not just EEGPL associated vessels) moving to and from the FPSO and drilling ships to identify marine mammals and adjust course/speed accordingly to prevent collisions.
  - ii. Better preventative protocols in place to avoid an influx of invasive alien species from untreated ballast water.

- iii. Continuous monitoring of water quality surrounding FPSO by independent labs to determine temperatures, pollutants levels, algal blooms etc.

The inclusion of measures to enable community participation, especially indigenous people and communities, in the project's research and monitoring would be of great value to effective monitoring, amongst other things.

## **10. OIL SPILL RESPONSE PLAN (OSRP)**

### **a. Robust stakeholder engagement and training program:**

- i. The OSRP should more clearly delineate lines of actions, roles and responsibilities for the company, government, and third parties in each of the three different event tiers.
- ii. Recognizing the important role potential affected communities, local government agencies and other relevant parties could play in supporting implementation of the response plan during an emergency, it is fundamental that the project gives significant priority to the training and preparation of all entities to ensure coherent and effective emergency response when needed.
- iii. We suggest that the Project partners with academic and training institutions, such as the University of Guyana, to sustain training for implementation of response plans in case of an oil spill.
- iv. The use of dispersants should comply with best practices and standards, given that they might create cumulative effects.

### **b. Transboundary considerations:**

- i. The Project should ensure that there are robust and binding agreements with neighboring countries and small island states so that they are adequately compensated for the potential loss of tourism product (sun/sand/sea tourism), biodiversity, fisheries industry etc., should a spill reach their shores.
- ii. Similarly, there needs to be a clear plan of response with respect to: who is responsible for cleanup activities, who funds initial response, who funds recovery from culminative effects, who is responsible for loss of country revenue (sea/sand/sun product).

### **c. Ability to Respond**

- i. We continue to note the transboundary impacts that can occur on Venezuela, Trinidad and Tobago, Venezuela and other Caribbean islands in the event of a serious oil spill. These impacts may be extremely significant for the economies of countries that are highly dependent on the tourism and fisheries industries. The very limited mechanisms in place for the regulatory agencies to deal with an oil spill, along with weak legal frameworks that exist within the region, suggest

that impacted countries would be in a highly disadvantageous position, and highly dependent on the developer, to respond to a transboundary oil spill event. We reiterate the recommendation for the establishment of an **environmental bond** or the triggering of an immediate imposition of an early payment (within the fee structure of the environmental permit) that can be immediately used by the Government of Guyana to work with its neighboring countries and other affected parties in the event of an oil spill.

- ii. We note that this matter becomes increasingly important as the number of wells increases. Likewise, while we note that EEPGL may have the response capacity, this may not be the case for the other oil and gas companies. The risk to the Government and People of Guyana is therefore multiplied.