



**ENVIRONMENTAL FOUNDATION
(GUARANTEE) LIMITED**

**COMMENTS ON THE
ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
REPORT FOR PROPOSED 350MW RLNG COMBINED
CYCLE POWER PLANT AT KERAWALAPITIYA ON
BOOT BASIS**

15th November 2021

November 15, 2021

Director General
Central Environmental Authority
"Parisara Piyasa"
No. 104, Denzil Kobbekaduwa Mw.
Battaramulla

Dear Sir,

Comments on the Environmental Impact Assessment (EIA) Report for Proposed 350 MW RLNG Combined Cycle Power Plant at Kerawalapitiya on BOOT Basis

The Environmental Foundation (Guarantee) Ltd (EFL), established in 1981, is a non-profit environmental public-interest litigation and scientific research organisation. Its mission is to conserve, protect the natural environment of Sri Lanka, assuring a sustainable future for the country, people, and biodiversity.

In response to the website notification appearing on the Central Environmental Authority website, on the project as mentioned above, the EFL hereby forwards comments on the Environmental Impact Assessment report (EIA).

The specific comments are provided in Annex 1, along with a reference to the page number of the EIA document. The following section of general comments highlights the key concerns.

General Comments

1. RLNG source

One of the major concerns is the source of RLNG. The report mentions an Annual Average Fuel usage of 243,622,799 kg to be used for RLNG fired Combined Cycle Power Plant Operation, however the source of RLNG is not specified.

2. Lack of inclusion of crucial infrastructure of the plant in the EIA

Some of the crucial infrastructures of the RLNG plant - such as the Floating Storage Regasification Unit (FSRU), LNG fuel pipeline, metering system, and processing section of the LNG are not adequately addressed in the EIA. Unless there is a separate EIA to be done for the FSRU and the pipelines to be fed to the LNG plant and future LNG plants, these critical units should be addressed in this EIA.

3. Issues with assessing the economic and environmental feasibility

It is not clear if the Floating Storage Regasification Unit (FSRU) was considered within the economic investment and the cost-benefit analysis. It is essential to consider this in the feasibility assessment.

The report mentions that in order to make RLNG infrastructure commercially viable 1 GW (1,000 MW) power should be produced from RLNG alone (Pg 12). If so, the existing plants of

Kelanitissa complex and Sojitz Kelanitissa Plant conversion to LNG plants should be considered first (as the conversion of existing plants would be a better and smaller investment than developing a whole new plant). If only the Kerawalapitiya plant is operated, then the economic loss of this investment will be significant (as the investment required to make LNG commercially viable will not be fulfilled by this plant alone).

The feasibility of the whole project lies in the fact that this plant is to be converted to an RLNG plant after 3 years of functioning as a diesel-powered plant (Pg 12). In the event the RLNG terminal is not constructed within these 2 years, the environmental and economic feasibility of this project becomes negative.

As the plant will operate on diesel for the initial 2 years until the FSRU is constructed and LNG is provided, the emission standards of gasoline should be considered as well (as per Section 32 of the National Environmental Act, No. 47 of 1980 and subsequent amendments). The design parameters mentioned here have no mention of air quality compounds standards for LNG.

4. Effluent treatment and discharge

Effluent treatment and discharge are not adequately addressed in the report. The separation of contaminated water; type and specifications of the required effluent treatment system; water quality monitoring; sludge disinfection; sludge and brine discharge; slit trapping and the mechanism for sewerage and industrial wastewater collection and disposal are the specific sections that are poorly addressed.

5. Infrastructure

Canal road/ Hendala Hunupitiya road is a high traffic area. Currently, as the CPTSL/ Muthurajawela terminal road has severely deteriorated, most of the community members use Hendala-Hunupitiya road as a major road link. Dikowita fisheries harbour road (Prithipura road/ beach road) is another main link that leads to Negombo and already has heavy traffic. The lack of implementation of a proper traffic management plan could lead to severe consequences and social unrest during construction and implementation.

6. Lack of information on the proposed fill area

Figure 20 of the report (page 61), showing the “HEC RAS full model area”, refers to a ‘proposed fill’ area. However, this fill area is not marked in the location map of the project site (Figure 1) nor further described in relevant sections. Furthermore, details of land preparation activities (Section 2.3.1) mentioned that no extensive landfilling is required. Further to this, it is to be noted that the referred areas are located near the Muthurajawela gazette PA and its buffer. Therefore, the purpose and size of the proposed fill area, its proximity to the PA and buffer, the expected activities and their impacts needs to be critically addressed.

7. Flora and fauna of the site

The sampling techniques for the flora and fauna survey are not clearly specified. Furthermore, the literature pertaining to previous records of species are not included in the report. Furthermore, this section of the report is written ambiguously and lacks references to the species numbers. Ideally, a summary table of flora and fauna, and a list of threatened and endemic species encountered at different sections of the project site. The focus is only provided to the main plant area whilst the pipelines, pump houses, transmission lines and

other facilities in terrestrial environments are not assessed at all. Also, the report lacks a list of marine species even though the absence of threatened endemic species were reported.

Furthermore, considering the habitat sensitivity and the behavioural patterns of encountered species, day and night sampling may also be required to identify the occurrence of species. Even though the occurrence of certain species during the migratory season is suggested (page 106) the report mentions that the survey was not carried out during the migratory season (page 107). Considering the fact that the proposed site is close to a wetland and a declared sanctuary, a proper survey on migratory species is highly recommended. Also, mitigation measures for minimizing disturbance to wildlife, particularly species of conservation importance, needs to be addressed.

In addition, the permanent impacts due to change in land use of the study area, loss of the wetland and its ecosystem services, loss of habitats and their functions, loss of species, and related issues are not adequately addressed.

Mitigation measures for the impacts to flora and fauna, especially considering threatened species, need to be addressed more clearly within the report, and in the EMP specifically. It is suggested that part of the laydown area is left as is to ensure that disturbance to the threatened fauna is minimized.

8. Community awareness

Considering that 89% of the householders were not aware of the project (Pg. 135), it can be assumed that no awareness generation has been carried out in the community. As such it should be imperative that transparency of the project is maintained with the community by the project proponent at all stages of the project. If the ADB safeguards are followed as mentioned in the EIA report, awareness generation is a key step that should have been established prior to carrying out the EIA.

Additionally, other establishments nearby to the plant should be made aware of regarding the plant, and emergency scenarios and probabilities. As some FRED simulations show that the Yugadanavi plant, some residences and also warehouses across the road from the proposed plant can get affected. Emergency evacuation plans, fire control measures and other urgent mechanisms should be developed and provided in the EIA.

9. Solid and hazardous waste management

It is to be noted that in reality and as mentioned in the EIA, solid waste collection by the local authorities does not occur in this area. As such there should be a robust and practical plan for the management of solid and hazardous waste during the construction stage and also for the operation stage. Considering that the Waste-to-Energy plant is also in close proximity to the proposed plant, an arrangement should be made to manage the waste from the proposed plant.

10. Extended Cost Benefit Analysis (ECBA)

The ECBA provided in the EIA lacks details of the environmental and social costs taken into consideration. The accountability of the project should be transparent, and details of the

environmental costs are not provided clearly in the EIA. It is suggested that the detailed calculations taken into consideration for the ECBA be provided with the revised EIA.

11. Environmental Monitoring and Management (EMP and EMoMP)

The EMP and EMoMP require revisions as the section does not integrate all the mitigation measures mentioned in chapter 5. In addition, the monitoring plan does not reflect the elements of the EMP.

Recommendations

It is suggested that the content of this EIA is revisited to properly address the environmental (especially ecological) issues that will be caused by it in order to develop holistic mitigation measures.

The importance of this project is understood, however, the long-term viability of this plant and the investment feasibility is not properly addressed. The FSRU is completely ignored in this report although it would be the critical requirement for the sustainability and justification of this project.

Yours faithfully,



.....
Kumudu Herath
Head of Science



.....
Dinithi Panagoda
Senior Environmental Scientist

Annex 1: Comments on EIA Report of 350 MW RLNG Combined Cycle Power Plant at Kerawalapitiya

Comment No	EIA Pg No	Section	Comment
1	-	General comments	The economic feasibility of the project considering the cost of the environmental and social impacts should be revisited.
2	-	General comments	The current dilemma of the FSRU plant tender and the non-transparency of this process might have consequences later on the designs, technology and other aspects. Kindly verify this.
3	-	General comments	In some instances the content of the EIA report is contradictory. Kindly double-check the facts provided in the report and maintain consistency throughout the report- especially with regard to the terminology used.
Executive summary			
4	2	Executive Summary	What is the source of RLNG for Annual Average Fuel usage of 243,622,799 kg to be used for RLNG fired Combined Cycle Power Plant Operation?
5	2	Executive Summary	On alternatives considered, weren't technological alternatives or green building concepts considered? It mentions that apart from LNG (after renewable energy) there are no other alternatives to be considered.
Chapter 1			
6	11	Table 1: The original timeline for project commissioning after selecting the successful bidder	Why is the plan running on an open cycle if it is designed for the combined cycle? As the benefits of the closed cycle are mentioned repetitively then shouldn't the plant run on a combined cycle from the beginning?
7	12	1.2.5. Achieving RLNG economy	Was the cost of constructing the Floating Storage Regasification Unit (FSRU) considered within the economic investment and the cost-benefit analysis?
8	12	1.2.5. Achieving RLNG economy	If in order to make RLNG infrastructure commercially viable that 1 GW (1,000 MW) power should be produced from RLNG alone (as mentioned in this section), then the existing plants of Kelanitissa complex and Sojitz Kelanitissa Plant conversion to LNG plants should be considered first. If only the Kerawalapitiya plant is operated, then the economic loss of this investment will be significant and a disaster.
9	14	1.5.3. EIA in the Fauna and Flora (Amended) Act No 49 of 1993	There are mentions of ADB within this section. However, the role of ADB within the project is not explained in the EIA.

Comment No	EIA Pg No	Section	Comment
10	18	1.10. Approvals needed for the project from other state agencies and any conditions laid down by state agencies for implementation of the project	Mentions that no stipulations were given during approval of the project however the approval letters are not provided within the annexes.
11	16-18	1.10. Approvals needed for the project from other state agencies and any conditions laid down by state agencies for implementation of the project	The Wattala divisional secretariat is not included within the approval process. RDA should be within the EIA approval committee as some project designs require approval from RDA as well.
Chapter 2			
12	23	2.2. Description of Major Features of the Project	LNG fuel pipeline should be considered in the project features. Unless there is a separate EIA to be done for the FSRU and the pipelines to be fed to the LNG plant and future LNG plants.
13	23	2.2. Description of Major Features of the Project	"• 1 Unit of Re-Liquefied Natural Gas (RLNG) /Diesel fired Gas Turbine Unit coupled to a synchronous Generator." Is it re-liquified natural gas or re-gasified natural gas?
14	24	Table 8: Site Ambient Conditions	As the plant will operate on diesel for the initial 2 years until the FSRU is constructed and LNG is provided, the emission standards of gasoline/ diesel should be considered as well (as per Section 32 of the National Environmental Act, No. 47 of 1980 and subsequent amendments). The design parameters mentioned here have no mention of air quality compounds standards.
15	24	2.2.1.1. Gas Turbine	What is the technology used in the turbine to achieve 'a dry low NOx technology to achieve low NOx emissions without steam or water injection'?
16	26	2.2.2.3. Induced draft Cooling Tower	This section mentions that the steam is transferred to the surface condenser for cooling via a water flow and that the subsequent water is ejected into the environment via a forced draft cooling tower. The size specification of the tower is not mentioned here, nor the concentration of the water to be cooled by the tower and the time taken for cooling. Additionally, the volume of the water to be ejected, along with the design temperature of outlet water should be mentioned.
17	26	2.2.2.5. Water source and treatment system	The mechanism for desalination of the seawater is not mentioned, although it states that it will be treated till potable water quality.
18	26	2.2.3.1. Liquid Fuel System	Details of pipelines, metering system, and processing of LNG is not included (only pre-treatment is mentioned in 2.2.3.3. Fuel gas system). If this plant is made specifically for LNG usage, then this critical information should be included in the EIA.

Comment No	EIA Pg No	Section	Comment
19	27	2.2.3.2. Fuel transport, unloading, storage and transferring	<p>"The unloading area will be designed to contain and drain any spillage to the oily water system."</p> <p>This statement is unclear and alarming as oil should not be drained to any water system in the area. Definition of 'oily water system' is not mentioned anywhere in the document.</p>
20	27	2.2.3.3. Fuel gas system	<p>Details of the RLNG intake as well as the FSRU should be provided. Disaster management and emergency management mechanisms details should be provided.</p>
21	27	2.2.4. Effluent treatment system	<ul style="list-style-type: none"> · The type of effluent treatment to be provided should be mentioned, along with specifications of the plant to be constructed. · More details should be provided regarding the separation of type of water (uncontaminated, contaminated with oil, etc.) · How long will the continuous monitoring of water quality parameters be carried out before releasing the water to sea? · What are the 'process effluents' as mentioned in this section? · How will sludge be collected, dried and sold? (it is assumed that sludge from different treatments will be collected separately)
22	33	2.3.2. Surface drainage management plan	<p>The surface drainage management plan should consider making compulsory silt trapping and silt mitigation measures as the area drainage lead to marshlands or Hamilton canal, both of which should not be silted due to construction activities.</p>
23	33	2.3.3. Requirement, sourcing, and transport of construction material	<p>Table 11: Construction Materials, source and transportation mentions that rubble and bricks will be transported by road with multi-wheeled trucks. However, a traffic management plan isn't included in the EIA- it is only included in the annex. Considering the road conditions of the roads and also the existing traffic issue, a proper traffic management plan should be included in the EIA and followed during construction and operation stages.</p>
24	34	2.3.9. Erection of Fuel Tanks	<p>Structural mechanisms for protection against groundwater leakage and disasters are not mentioned.</p>
25	34	2.3.9. Erection of Fuel Tanks	<p>"The internal floor of the diked area will be suited to retain oil." – This sentence is very vague as it does not mention how the internal floor will be constructed to retain oil.</p>
26	34	2.3.11. Construction of internal drainage system	<p>The mechanism for the separation of oily water and removal of oil is not mentioned.</p>
27	34	2.3.11. Construction of internal drainage system	<p>The mechanism for sewage and industrial wastewater collection and disposal is not mentioned.</p>

Comment No	EIA Pg No	Section	Comment
28	34	2.3.11. Construction of internal drainage system	Will the stormwater system be constructed during the construction phase and continued till the operation phase? What are the mechanisms apart from silt traps in place for restricting garbage and other material from reaching natural waterways? Where is the discharge point as is mentioned in this section?
29	34	2.3.11. Construction of internal drainage system	Considering the slope in the area and the existing drainage paths, there will be pumping required. Where will the pump houses be constructed? And what will be the capacity? Additionally, are there underground facilities? What are these facilities?
30	34	2.3.12. Construction Sequence	The construction plan is not provided in the EIA. It is an essential item to identify how the phasing of activities are and the timing.
31	35	2.3.13. Methods of laying pipes	The method of laying pipe across the Hamilton canal is not mentioned here. Additionally, considering the pipeline required to connect to CPTSL nearby, there will be increased traffic congestion and deterioration of existing road conditions as well which are not addressed. Leakage prevention for the CPTSL pipeline should be addressed as well.
32	35	2.3.14. Infrastructure Development	'Canal road/ Hendala Hunupitiya road' is a high traffic area and the contents of the traffic management plan should be included in the main report. Currently, as the CPTSL/ Muthurajawela terminal road has severely deteriorated, most of the community members use Hendala-Hunupitiya road as a major road link. Dikowita fisheries harbour road (Prithipura road/ beach road) is another main link that leads to Negombo and has heavy traffic; additionally, the road only has 2 lanes. Without proper implementation of a traffic management plan, there will be severe consequences and social unrest during construction implementation.
33	35	The Transport Route for Hydraulic trailer	It mentions that the hydraulic trailer will be transported through the Kelani bridge, which is currently under construction and will only be completed in 2022 (as is estimated). If this project will be starting in 2022 then this route will not be viable. The construction plan is an essential item of an EIA, which is not provided in this EIA report.
34	37	2.3.15. Construction waste management system/plan	Although recycling and reusing are provided in the waste management section, how it will be done is not mentioned or outlined. Special emphasis should be given to labour quarters and camps, as these areas generate the most waste. It is essential that waste does not reach waterways in the area, as the drainage paths lead to Muthurajawela sanctuary and Hamilton canal.

Comment No	EIA Pg No	Section	Comment
35	37	Site Environment	What sort of sewage treatment system will be in place? What level of treatment? What will happen to the sludge/ remains of the treated sewage?
36	38	2.4.1.1. Liquid fuel handling system	What will be the purpose of the tanks in the fuel storage farm once RLNG is in place? According to this report, there will not be any on-site storing of RLNG.
37	38	The liquid Fuel treatment system	Please provide the details of the effluent treatment plant where the oil cleaning and separation will be carried out.
38	39	2.4.1.1. Liquid fuel handling system	The route for pipeline or method of delivery of RLNG is not mentioned.
39	42	2.4.3.3. Description of the treatment including a desalination plant	The sludge disposal mechanism and brine disposal mechanism are not mentioned.
40	43	Table 21: Chemicals added to the freshwater supply system	What are the volumes of the chemicals to be added to the freshwater supply?
41	43	2.4.3.3. Description of the treatment including a desalination plant	Is remineralization present as a part of the post-treatment process?
42	43	2.4.3.6. Method of discharge of concentrated solution from desalination plants and the discharge points	What are the water quality parameters of the output water (CMB collected water) and how does it compare with the CEA ambient water quality standards?
43	45	2.4.4.5. Cooling Water recirculation system/discharge location	<p>What are the mechanisms undertaken to bring the discharge water standards into the CEA applicable standard?</p> <p>Although Section 2.4.4.4 mentions that the discharge water will meet the CEA 'list 3 (Tolerance Limits for industrial and domestic waste discharge into the marine coastal area) gazette number 1534/18 dated 1st February 2008' standards, how this process is achieved is not mentioned.</p>
44	46	Continuous Emission Monitoring System (CEMS)	Will the results of the emission monitoring system be made publicly available?
45	47	2.4.6.1. Types, quantities, rates of discharge and quantity of effluent generated by the project activities	Sludge and brine discharge due to the RO plant is not included here. Neither is the sludge produced by the wastewater and sewage treatment plants (which is mentioned in Fig 9). These are also effluents produced via project activities.

Comment No	EIA Pg No	Section	Comment
46	48	Figure 9: Wastewater diagram	<p>It is better if the volumes of effluents are added to this diagram along with mention of the disposal mechanism.</p> <p>Why are these 2 pumps mentioned for the sewage treatment plant to CMB and from the effluent treatment plant to CMB? What are the locations for these pumps?</p>
47	49	Sewage treatment plant	<p>What is the disinfection mechanism used for sewage treatment?</p> <p>Is the plant an enclosed one or an open space one? Open space sewage plants create odour issues regardless of the technology.</p> <p>What happens to the sludge created by the treatment? How is it collected and is it reused?</p>
48	49	2.4.6.4. Anticipated quantities and quality of effluent to be discharged to the environment	There is a hazardous chemicals input mentioned for the demineralization generation unit, which will be sent to the neutralizing pit. How will the hazardous chemicals be neutralized?
49	49	2.4.6.4. Anticipated quantities and quality of effluent to be discharged to the environment	Sludge from the sewage treatment plant is not mentioned.
50	39	Central Monitoring Basin	Mentions that the outflow from CMB will be mixed with the Cooling tower blowdown flow as well. Parameters of this blowdown flow should be mentioned in the report.
51	50	2.4.8.2. Disposal systems including landfill sites if any	It is recommended that the waste to energy plant near the site is considered as the 1st option for disposal of waste.
52	53	2.6.4. Occupational health safety and facilities provided	<p>"The internationally recognized OHS systems will be implemented to ensure OHS at the construction site."</p> <p>What is this internationally recognized OHS system?</p>
53	53	2.6.4. Occupational health safety and facilities provided	Traffic management and bystander protection measures should be addressed.
54	53	2.7.1. Extent of the area to be maintained to mitigate effects of noise and vibration	What is the extent and placement of the green belt?
55	56	Alternative sites, design and technology selection, construction techniques, location of SPBM, routes for laying of pipelines, operating and maintenance procedures etc.	"Additionally, the use of LNG, which is clean fuel also provides the ability for high firing temperatures compared to oil-fired E-Class gas turbines."- It is to be noted that the feasibility of this whole project lies on the fact that this plant is to be converted to an RLNG plant after 3 years of functioning as a diesel-powered plant. In the event the RLNG terminal is not constructed within these 3 years, the environmental and economical feasibility of this project becomes negative.
Chapter 3			

Comment No	EIA Pg No	Section	Comment
56	57-58	3.1.2. Climate and Meteorology	<p>Weather information from Katunayake station is more relevant to this area.</p> <p>Analysis of this data and its applicability to the project is not mentioned.</p>
57	59	Figure 18: Drainage Pattern of the Project Area	<p>This figure should be updated a lot more as there are stormwater drainage canals as well as natural canals which are smaller and have an impact on the drainage pattern in the area. These smaller drains are seen especially in the homestead areas, and the marsh areas.</p>
58	61	Figure 20: Left: HEC RAS full model area; Right: HEC RAS 2D model area including Negombo Lagoon upstream sub-catchments	<p>The figure shows two new areas which are mentioned as 'proposed fill'. This area is not marked in Figure 1: Location Map of the Project Site nor is it mentioned in Section 2.3.1. Section 2.3.1. Details of land preparation activities mentioned that no extensive landfilling is required. Kindly clarify what these areas are to be used for. It is to be noted that these areas are in close proximity to the Muthurajawela gazette PA and its buffer. Kindly provide details of its distance to the PA and buffer, size of the filling area, and purpose of this filling.</p>
59	61	3.1.3.2. Surface Water Quality, availability & uses	<p>"As such, there is no real significant impact of the project on surface water bodies expected."</p> <p>Contamination due to runoff will have a significant impact for a project this size. The runoff will most likely include cement, soil, sand and other hazardous and non-hazardous materials if proper stormwater drainage systems are not in place. Considering the environmental sensitivity and flood capacity of this area, higher consideration should be given to safeguarding the natural drainage system in the area and ensuring that pollution and sedimentation do not occur.</p>
60	61 & 64	3.1.3.2. Surface Water Quality, availability & uses	<p>"Therefore, some influence from tides could be expected in the quality of the canal water."</p> <p>This statement is very vague. This should be supported with primary data mentioned collected in August 2020. Additionally, it is assumed from the data provided in Table 32 that water quality data was collected only once during the month.</p> <p>It is to be noted that standard baseline water quality recording is imperative in the EIA to provide an analysis of existing conditions, and also to provide for future monitoring.</p>
61	73	3.1.4.3. Hydrographic details at onshore and offshore facilities and pipeline trace	<p>Water quality modelling and temperature modelling of the outflow is not provided. Only brine outflow stimulation is carried out.</p>
62	77-78	3.1.5.1. General Geology of the study area	<p>The geological condition of the pipeline should be mentioned as well considering there will be underground facilities and pipelines. The presence of peat will require significant piling for the project and will generate impacts associated.</p>

Comment No	EIA Pg No	Section	Comment
63	92	Table 48: Comparison of AAQ monitoring results done within the study area	'Comparison of measured AAQ with historical monitoring data' mentions criteria used for selection of sample points. However, these criteria are not specifically mentioned in this section.
64	97	Table 54: Classification of main industries, warehouses and office facilities in the vicinity of the proposed project site and their respective typical noise power level power level	Considering that the existing Yugadanavi plant creates high noise, what are the additional noise-cancelling or mitigating measures in place for this new Kerawalapitiya plant?
65	102	Methodology: Floral and faunal Surveys	"A team of four field personnel surveyed the habitats and identified species." What were the sampling techniques used to identify flora and fauna?
66	102	Methodology: Floral and faunal Surveys	"Species that have been recorded from these marshes previously (in recent years) were also recorded as potential species" Please provide the references for the publications/ records which were included in the EIA?
67	103	Figure 51	The figure is not clear at all.
68	106	Species of flora and fauna	It is recommended that this section be revisited as the NCS of some species in the annexe has to be rechecked.
69	106	Habitat types within and the vicinity of sandfill site	"Given the fact that the landfill site has been filled in the past and subsequently been invaded by the exotic and potentially invasive plant <i>Acacia auriculiformis</i> , which is now the dominant species in the high ground areas, and the fact that the site is small and surrounded by a built-up environment, one cannot expect it to support high levels of biodiversity and species of particular biological worth" "...it is probable that some important species might occur here..." The whole paragraph is written ambiguously and without reference to the number of species recorded nor a numerical assessment of the biodiversity. One cannot assume whether it supports high diversity without proper assessments.
70	106	Habitat types within and the vicinity of sandfill site	"Also given that much of the surrounding marsh habitats are also simultaneously reclaimed for urban development some urban wildlife species that have importance in terms of conservation may be trapped within this site." Please clarify this statement of how 'urban wildlife' can be 'trapped within the site'. If such a case is occurring, then appropriate mitigations should be taken to ensure there is no disturbance to species important for conservation.

Comment No	EIA Pg No	Section	Comment
71	106	Species of flora and fauna	<p>This section should provide a summary of the species encountered at each of the sites of the project. The focus is only provided to the main plant area whilst the pipelines, pump houses, transmission lines and other facilities on the terrestrial environment are not assessed at all.</p> <p>This section should also provide a list of threatened and endemic species encountered at each site. A general number of just the main plant area is not sufficient.</p>
72	106	Species of flora and fauna	<p>“However, listing all such species would not be realistic, given that the site is at present surrounded by built-up areas which are prone to high levels of disturbance and human activity. Thus, many species would only likely be using the landfill site in transit and would not be residing here.” Considering that fauna generally travels within a site and have paths for scavenging and other purposes, a proper assessment of day and nighttime should be done to identify the occurrence of species within 24 hours. Merely mentioning that ‘it might not occur’ is vague and unjustifiable.</p>
73	106	Species of flora and fauna	<p>“It should not be taken as a comprehensive list of species that would occur in the Muthurajawela wetland.”</p> <p>Considering the fact that the distance from the muthurajawela protected sanctuary and the wetland is taken as a measure for justifying this project, why is it mentioned that the flora and fauna occurring in this area is similar to the wetland?</p>
74	107	Fauna	<p>“However, we have included species that are likely to be found in the landfill site and its buffer even during the migratory season.”</p> <p>Pg 107 of the EIA mentions that the survey was not carried out during the migratory season.</p>
75	107	Fauna	<p>“Being a semi-aquatic habitat, fish fauna are of particular significance. With respect to the fish, only six species were observed within the marsh and open water habitat within the site.”</p> <p>“...listed in Annexure 3.6, but none of these would likely occur in the small marshy area within the landfill site” Kindly clarify this statement. The paragraph starts by mentioning that the site is semi-aquatic which includes a marsh and an open water area. Then the paragraph ends by mentioning that these species ‘likely not occur’ in the marsh area of the landfill site. Is this species present within the ‘project area’ or not? And how is it confirmed that the species will not ‘likely occur’?</p>

Comment No	EIA Pg No	Section	Comment
76	109	Figure 57: Zoomed view of the proposed and existing seawater intake and outfalls.	The image shows 2 discharge points named KI and KII and the figure name mentions an existing seawater intake. It is assumed that KII discharge is the new pipeline. The figure also mentions options for intakes and discharges which are not mentioned in the evaluation of alternatives of the EIA report.
77	110	General characteristics of the marine environment around the project site and area of influence	A summary of the marine species found in the transects and study area locations should be given in this section.
78	110	General characteristics of the marine environment around the project site and area of influence	Kindly provide a map showing the intake and discharge pipelines as well as the reefs and other sensitive habitats in the area.
79	110	Sensitive habitats	<p>"In this respect, the landfill site itself is not rich in biodiversity nor do any threatened faunal species be considered as residential species within the site."</p> <p>Considering that there are threatened floral and faunal species in the area, and a biodiversity calculation is not carried out as well, a decision regarding the biodiversity cannot be given properly.</p>
80	110	Sensitive habitats	Section 2.3.1 shows some other locations as landfill sites as well which are within the Muthurajawela protective area and buffer.
81	111	3.2.2.2. Marine Ecology	"There are no recorded rare, threatened or endemic marine species in this area."- There is no annexe with the marine species listed.
82	122	3.2.5. Proximity to protected areas	Section 2.3.1 shows some other locations as landfill sites as well which are within the Muthurajawela protective area and buffer.
83	125	Legislative and Regulatory Framework	ADB safeguards are mentioned in this section as well, however, the reason for selecting ADB safeguards is the standard out of other banks is not mentioned in the report.
84	135	3.3.3.8. Experience & perception of the community on the existing plant	What were the sound-related impacts mentioned by those impacted?
85	135	3.3.3.9. Perception of community on the proposed power plant	Considering that 89% of the householders were not aware of the project, it can be assumed that no awareness generation has been carried out in the community. As such it should be imperative that transparency of the project is maintained with the community by the PP during all stages of the project. If the ADB safeguards are followed as mentioned in the EIA report, awareness generation is a key step that should have been established prior to carrying out the EIA.
86	136	Sensitive species	<i>Cardiospermum microcarpum</i> is stated as a near-threatened species whilst in the annexe (Pg 295) it is listed as NE.

Comment No	EIA Pg No	Section	Comment
87	138	3.3.5.1. Access roads	Contents of the traffic management plan should be included in the EIA considering the road conditions as well as existing traffic in this area.
Chapter 4			
88	142	4.2.1.1. Impacts on hydrological characteristics of the area	Construction-related impacts on the existing drainage systems, as well as runoff, are not addressed properly. There is a mention that the impact is insignificant even when landfilling is listed as a requirement.
89	143	4.2.1.2. Impacts on existing infrastructure facilities	Degradation of the road conditions is not mentioned, along with any disruptions to existing utility pipelines due to the installation of new pipelines.
90	145	4.2.1.6. Soil erosion and silting of waterways and adjacent areas	What is the volume of excavation to be carried out? Where will the excavated material be sent to? Considering that there is peat a few meters below from the ground level, it is summed that it cannot be used as filling materials.
91	145	4.2.1.7. Changes in surface and groundwater quality	“Runoff at the site even now passes through a retention/ sedimentation pond.” Does this statement mean that the Yugadanavi plant has this pond?
92	145	Loss of marsh habitat	Considering that only rapid assessments were carried out, it is assumed that breeding and nesting sites were not surveyed completely in the proposed plant area and the pipelines. In addition, generally, habitats of threatened species (whether nesting, breeding, feeding, etc) are not to be disturbed by projects, and if there is disturbance proper management practices should be in place (such as routes for their movements, leaving a piece of marsh in place for these species, etc).
93	145	Death of fauna	This section is very vague as it mentions that the site will be fenced off during the construction stage and any animals which wander into the site will either die from stress or as roadkill. The annihilation of the populations of fish present in the marsh is also not properly addressed. However, impacts are listed as low and permanent.
94	146	Marine Ecology	Impacts on the reefs due to the outfall and the plume of effluent should be mentioned.
95	146	4.2.1.9. Transportation of material and equipment	As mentioned before, the contents of the traffic management plan and implementation should be a critical requirement of the EIA.
96	148	4.2.1.11. Impacts due to emissions to the air (eg: dust)	Why would open burning of solid waste be carried out during construction? Open burning is considered illegal in Sri Lanka. Especially considering that the waste to energy plant is in close proximity, waste should be managed optimally in the site.

Comment No	EIA Pg No	Section	Comment
97	150	4.2.2.9. Public safety / potential relocation of people and developments due to security reasons	The public safety of people on the road and other bystanders who use the road should be addressed.
98	186	4.3.2.1. Changes of water temperature & brine concentration of receiving waters due to discharges- Impacts on Reefs	An increase in salinity at Kapugala reef will have adverse impacts on the fish schools and the corals on the reef. Additionally, the movement of other species which may interact with the reef will also be impacted due to the plume present in all seasons. This impact may also be influenced by global warming and increasing temperatures as well.
99	186	4.3.2.2. Impacts on inland surface/ groundwater quality/ quantity	“There will be no direct discharge of effluent or treated effluent to ground. The treatment provided to additional sewerage generated due to the proposed power plant will be similar to that of the existing power plant. Therefore, the treated wastewater quality will not be a threat to the groundwater.” This paragraph is confusing. Although it mentions that there are no discharges into the groundwater, it still mentions that the treated wastewater will not impact groundwater quality. Kindly clarify whether there are any discharges or not.
100	191	Conclusions of the noise modelling study	“Boundary wall is acting as a noise barrier” Is this an existing boundary wall or to be implemented as part of the project?
101	193	4.3.4.2. Impacts due to disposal of domestic solid waste and sludge from the wastewater treatment plant- During Operation	Sludge generated by a treatment plant out of domestic sewage and wastewater has pathogenic substances and is activated sludge. As this section mentions that dried sludge will be provided to licensed collectors, where is the drying facility located within the plant? Additionally, this section mentions that solid waste will be given to contractors and local authorities. However, an ongoing main issue as is reported in this EIA is also that local authorities do not collect the solid waste from the area in time. This solution does not seem thorough according to the details provided in the EIA.
102	197	4.3.5.1. Impacts on coastal stability and sedimentation of the bay/ fishing harbour	Considering that the area near the pump house/ basama beach area is prone to erosion, what are the impacts of the sediment transportation/ erosion on the pipeline itself and what is the risk of displacement or other issues on the pipeline?
103	201		Item 4.4.2 is missing.
104	201	4.4.3. Impacts on terrestrial and aquatic habitats (Floral and faunal communities) due to changes in land use, air pollution and due to deposition of emission	Permanent impacts due to change in land use of the study area, loss of the wetland and its ecosystem services, loss of habitats and their functions, loss of species, and related issues are not addressed. Impacts at Kapugala reef due to increased salinity are not addressed.

Comment No	EIA Pg No	Section	Comment
105	202	Table 110: Minor impact in the vicinity of seawater pipe corridor	Details of pipeline across Hamilton canal and construction method should be provided in the EIA.
106	202	Impact due to installation of fuel pipeline from CPC fuel storage to the project site.	This road is used by locals and also the trucks/ transport vehicles that move within and through the industrial zone and generally have high traffic on the road. In addition to the poor road condition, the management of pipe installation should be done in a way that does not interfere with community movement.
Chapter 5			
107	204	5.1.1.1. Mitigation of impacts on hydrological characteristics of the area	Sections 4.2.1.1. Impacts on hydrological characteristics of the area mention that mitigation measures will be provided. However, section 5.1.1.1 mentions that there are no impacts and such no mitigations are required. Clarify these contradictory statements. Mitigation measures for loss of retention capacity are also not mentioned.
108	205	5.1.1.4. Mitigation of impacts on the network of drainage canals and their capacity to handle drainage & Figure 108: Tentative Conceptual Drainage Management Plan for the Proposed Plant-With Proposed Plan Footprint	A waste collector/ grating/ mesh should be included in the drainage system to ensure that large sediments and waste does not enter the natural drains.
109	207	5.1.1.5. Mitigation of Soil erosion and silting of waterways and adjacent areas	Silt traps, silt ponds and other mechanisms which can be easily implemented should be present during the construction stage. This is imperative as the surrounding area drainage paths lead to either the sea, canal, river or marsh.
110	207	5.1.1.6. Mitigation of changes in surface and groundwater quality	What are the mitigations for leachate (as mentioned in section 4.3.2.2.), oil and other construction material mixing with runoff?
111	207	5.1.1.7. Mitigation of Impacts on existing habitats due to changing land use pattern	It is best that a portion of the wetland currently existing is left alone instead of creating a wetland. An artificial wetland will take decades or longer to obtain the elements of a natural wetland. As the area south of the proposed power plant is only landfilled as a buffer, a portion of this area can be fenced off to leave a part of the existing wetland for the fauna and flora to thrive as is. The pond south of the Yugadanavi plant is also fenced off; as such the natural movement of fauna will not occur. A remedial measure of leaving a portion of the wetland should be strictly considered as the proposed project is impacting more than one threatened species. In the event an artificial pond is created, human interference should be strictly prohibited, and stormwater drains should not be diverted into this pond. Additionally, further mitigation measures should be considered for impacts during the construction stage which are not mentioned at all.

Comment No	EIA Pg No	Section	Comment
112	208	Reducing death of fauna	The fish in the existing wetland should be translocated to another marsh area in the vicinity. There should be mitigatory measures such as creating sounds/ noises for 24 hrs prior to land clearing, handpicking and translocating species prior to construction, etc to be considered as well.
113	208	Reducing local flood risks	Rather than creating a water retention area, it would be better to leave the existing wetland as is and fence this area off. It will function to provide the ecosystem services as the norm including water retention. The wetland's functionality will increase without anthropogenic influences.
114	208	Reducing impacts due to soil /sand erosion	Planting native species near the banks of the proposed stormwater drainage would create natural soil erosion measures. An earthen stormwater drain system will create a natural environment, and planting reed and other natural wetland species will create soil erosion measures; the stormwater drain system can be managed with dredging and other maintenance activities.
115	208 & 216	Reducing impacts from the disposal of sewage/ effluents and solid waste & 5.2.4. Solid and Hazardous waste disposal	As per Figure 9: Wastewater diagram and section 2.4.6.3, the sewage and wastewater from the plant buildings will undergo an activated sludge treatment process and the treated effluent water will be released to the sea after CMB. However, this section discusses releasing of the treated effluent into the marsh area nearby. This is contradictory to information provided before and additionally treated effluent released into inland waters has different standards as per the CEA than what is provided in Chapter 2. This section should also discuss how the dried sludge will be managed and impacts from handling and storing of dried sludge will be managed as well. As solid waste is not collected by the LA, another mitigatory mechanism as mentioned before should be planned by the project.
116	209	Disposal of Acacia trees	As these trees have adapted and grown in the area, these can also be used for landscaping of the new site after root balling. If these are to be disposed of, they should be under CEA recommendations for the removal of invasive species.
117	209	Reducing impacts noise/vibration and air pollution	A vegetation buffer can be established to muffle the noise and vibration during construction and also during operation.
118	209	5.1.1.8. Mitigation of impact due to Transportation of material and equipment	Road repairing should be carried out upon completion of the construction work as well.
119	210	Reducing impacts noise/vibration and air pollution & 5.1.1.11. Mitigation of Impacts due to emissions to the air (e.g.: dust)	Repetition of content.

Comment No	EIA Pg No	Section	Comment
120	211	5.1.2.2. Mitigation of Impacts on fishing grounds/routes and interference with existing fishing activities	What are the mitigations for the increase in salinity in the Kapugala reef? Apart from the mesh nets are fine screen nets also installed in the intake structure? Velocity Cap for Entrainment Reduction and other technologies should be considered to reduce entrainment and impingement. What are the design contingencies in place for issues in plant/ pipeline or other breakdowns which may result in a change in treated water conditions?
121	212	5.1.2.5. Mitigation of Impacts on canals and other water bodies	What are mitigations in place for disturbances during the construction of pipelines across the Hamilton canal?
122	212	5.1.2.9. Public safety / potential relocation of people and developments due to security reasons	What are the mitigations for fishermen and the communities which use the Hamilton canal during the construction stage?
123	213	5.2.1.1. Mitigation Air Quality Impacts due to Point Source Emissions	The stack height as planned is only justifiable in the event that the plant runs on LNG. What are the mitigations in place for the emissions during the 1st 2 years of running on diesel (which could be running longer on diesel in the event that the offshore storage is not built-in time?)
124	214	5.2.1.4. Continuous Emission Monitoring System (CEMS)	CEA should be provided monthly emission records and should be given authority to carry out site visits and verification of the records.
125	225	Table 114: The Risk Assessment Matrix	Does 'spill' mentioned as major damage refer to fire? Or just the oil spill?
126	228	6.7. Control measures and mitigation measures	This section does not discuss any details of design contingencies or site contingencies. This section should provide the measures taken to address the issues identified under Section 6.8.
127	229	6.8. Introduce recovery measures and develop Emergency Response Plans	This section only provides a list of emergency situations. The 'recovery measures' nor the 'emergency response plans' are not provided. At least the standards for developing these plans are not mentioned.
128	229	6.9. FRED assessment and development of Crisis Management Plan	Suggested to include the mitigation/ contingency measures planned against each of these crisis situations under each scenario.
129	229	6.9. FRED assessment and development of Crisis Management Plan	Kindly clarify whether these scenarios were only carried out for the LNG or if RLNG scenarios were also considered. From Chapter 2 it is assumed that the LNG will come to the FSRU where it will be regasified and piped to the plant.
130	230	6.9.1. Fuel storage tank leakage from 22.5 cm hole on body/pipeline and catching fire	"As presented in 2012 International Symposium on Safety Science and Technology, ignition probability after leakage for diesel fuel is 2.0×10^{-3} " Does that mean that the simulation probability of industry failure of the tanks is larger than the international probability standard or lesser.
131	231	6.9.2. Fuel storage tank leakage from a 0.005 m x 2 m crack on the body and catching fire (lightning strike)	International probability standard not provided to compare against the simulation probability.

Comment No	EIA Pg No	Section	Comment
132	233	6.9.4. Fuel unloading bay leakage and fire	"Emergency Response Plan for Fire and leakage response plans" - please provide details of these plans and the standards that these plans adhere to.
133	234	6.9.5. Diesel Pipeline (300 mm) failure and fire	International probability standard not provided to compare against the simulation probability.
134	235	6.9.6. LNG metering station leakage with fire	International probability standard not provided to compare against the simulation probability.
135	235	6.9.6. LNG metering station leakage with fire	What will be included within the Joint Emergency Response Plan" and what standards will it adhere to?
136	236	6.9.7. LNG metering station leakage without fire – Explosive Limits	International probability standard not provided to compare against the simulation probability.
137	236	6.9.7. LNG metering station leakage without fire – Explosive Limits	What will be included within the Joint Emergency Response Plan" and what standards will it adhere to?
138	236	6.9.7. LNG metering station leakage without fire – Explosive Limits	The residences of the surroundings and majority of Yugadanavi plant are within the 10% LEL. Details of contingencies should be mentioned in detail, as well as a warning system for the neighbourhood.
139	237	6.9.8. LNG metering station leakage without fire – Toxic Zones	International probability standard not provided to compare against the simulation probability.
140	237	6.9.8. LNG metering station leakage without fire – Toxic Zones	If LNG leakage occurs at the metering station (as per the location in Figure 119), there is also the risk of contaminating the surface and groundwater in the area unless there are safeguards undertaken to prevent leakage here. The location of Figure 119 also coincides with stormwater drainage paths as mentioned in the EIA (and the culvert).
141	237	6.9.8. LNG metering station leakage without fire – Toxic Zones	International probability standard not provided to compare against the simulation probability.
142	238	6.9.9. LNG metering station leakage without fire leading to a vapour cloud explosion	Few transformers and other facilities of the plant are within the PAC-1 zone, along with some buildings of the Yugadanavi plant. Details of the warning systems and the Joint Emergency Response Plan should be provided.
143	239	6.9.10. LNG leak from Turbine feed line resulting in a fire	As this is the main unit in the plant and also the riskiest, design contingencies should be taken to protect the explosion from extending to other buildings and also to the pipeline. These should be mentioned along with the details of the Joint Emergency Response Plan.

Comment No	EIA Pg No	Section	Comment
144	239	6.9.10. LNG leak from Turbine feed line resulting in a fire	What is the requirement of a Joint Emergency Response Plan as this explosion will not trigger any damage to the Yugadanavi plant? According to Figure 121.
145	240	6.9.11. LNG leak from Turbine feed line resulting in an explosive vapour cloud	The simulation shows that the LEL 10% cloud will go over to the Yugadanavi plant and also across the road to the John Keells building and other warehouses. There should be a joint plan developed in consultation with these other surrounding operations as well, and emergency evacuation mechanisms and first aid mechanisms, etc.
146	241	6.9.12. Vapour cloud explosion from the Turbine feed line	International probability standard not provided to compare against the simulation probability.
147	242	6.9.13. Transformer fire	What is the different approved calculator which was used?
148	244	6.10.4. Additional Recommendations	This section also includes measures to safeguard the health, safety and lives of the staff within the plants and also in other warehouses nearby. Emergency systems designs nor the presence of sprinkler systems or other contingencies are not mentioned in this section.
149	245	6.13. Emergency Response (ER)	Who will be trained as members of the 'ER team'? What will the training consist of and which situations will they be involved in?
150	245	6.14. Crisis Management Plans	This section should also consider strikes and other civil conflicts which may occur.
151	245	6.14. Crisis Management Plans	It mentions that as-built drawings are required to develop an emergency response plan and contingency management plans- however, the designs and equipment standards, as well as the Yugadanavi plant, can be used to devise a draft plan to be included within the EIA.
7. Extended Cost-Benefit Analysis			
152	248	Table 116: Major assumptions and standards used in the extended cost-benefit analysis - Evaluation period	It mentions that the construction period will be from 2021-2022 and that plant will operate from 2023. However, the ECBA should consider the plant running on diesel for two years and running on LNG for the rest of the years as separate elements.
153	249	7.4.1. Construction and Operational Costs of the Project	It is to be noted that in previous Sections of the EIA report, such as in 2.2.3. Fuel System mentions that the plant will run on RLNG by 2023. This is different from what is written in Chapter 7.
154	249	7.4.1. Construction and Operational Costs of the Project	As mentioned in Pg 12, 1 GW of electricity needs to be created from RLNG run plants to make the RLNG infrastructure 'commercially viable'. This is not reflected in this chapter.

Comment No	EIA Pg No	Section	Comment
154	250	Table 118: Summary of the proposed mitigation methods of environmental impacts (design related)	NOx and SOx release calculations should be done for both diesel and LNG.
155	250	Table 118: Summary of the proposed mitigation methods of environmental impacts (design related)	Brine release and impact are not considered here. The RO plant and pipelines are not mentioned in this section.
156	250	Table 118: Summary of the proposed mitigation methods of environmental impacts (design related)	Sludge from effluent treatment cannot be used unless it undergoes tertiary treatment. And this EIA report does not mention what the treatment level is. Additionally, the sewage effluent, RO effluent and oil/ scum from water are treated separately and sludge should be collected separately.
157	250	Table 118: Summary of the proposed mitigation methods of environmental impacts (design related)	No mention of the FSRU at all.
158	250	Table 118: Summary of the proposed mitigation methods of environmental impacts (design related)	This table severely lacks the environmental impacts and mitigation requirements of this project. Technically the ECBA should count for all the environmental mitigations mentioned in Chapter 5 and within the EMP. Land clearing, loss of the marshland and ecosystem services, loss of habitats for threatened species and such are not mentioned.
159	251	7.4.2. Environmental and Social Costs of the Project	"Due to scattered nature of minor impacts, poor availability of data for quantification/valuation and limited time availability; detailed evaluation of these environmental costs can be considered impractical."The sole purpose of carrying out an EIA is to identify such costs and impacts and carry out detailed assessments of how a project will impact an existing environment.
160	251	7.4.2. Environmental and Social Costs of the Project	"An additional allowance earmarked to cover mitigation measures proposed by EIA experts (calculated as a percentage of total cost) has been incorporated in the ECBA to represent 'cost of environmental impacts. This can be considered as a proxy value of the environmental costs of the project estimated through the 'preventive expenditure' approach. " What is this proxy value and how was it calculated? The detailed cost assignment for the mitigation and monitoring of the EMP and impacts in Chapter 5 should be provided.
161	252	Table 122: ECBA Results	Please provide the detailed calculations of the ECBA. It is generally included as an annexe of the EIA.
Chapter 8			
162	255	8.1. A summary of the anticipated significant adverse environmental impacts & their mitigation	The index column does not have any content.

Comment No	EIA Pg No	Section	Comment
163	255	8.1. A summary of the anticipated significant adverse environmental impacts & their mitigation	It is recommended that the EMP be developed as a combined table according to project phases in order to make it clear to the reader.
164	255	8.1. A summary of the anticipated significant adverse environmental impacts & their mitigation	Does not include elements on traffic impacts, Hamilton canal pipeline crossing, health and safety of labourers.
165	255	Site Preparation & Construction Phase	Land clearing and removal of vegetation, disturbances to flora and fauna, disposal of waste, filling and excavation are not addressed.
166	257	Waste Management	Details of monitoring mechanisms, waste registers and disposal mechanisms are not provided.
167	258	8.1.3. Biological Aspects	Section severely lacks proper address of impacts to be generated. There are items mentioned which do not require mitigations. Responsibility parties missing in some sections. Fishing is not a biological activity; it is a social activity.
168	258	8.1.3. Biological Aspects	The use of acacia stems to dispose of debris is not clear. Acacia stems would be the debris.
169	258	8.1.3. Biological Aspects	Landscaping is a construction stage activity, not an operational activity.
170	258	8.1.3. Biological Aspects	Sludge disposal not mentioned.
171	259	8.1.3. Biological Aspects	RO plant brine issue repeated in this section. (Already in "8.1.2. Surface and Ground Water Quality & Waste Management")
172	260	8.1.4. Air Quality	Should include monitoring mechanisms of emission test results of vehicles used for project work.
173	263	8.1.6. Land Stability	Filling, excavation and removal of peat and other elements should be addressed here.
174	265	8.2. Environmental Monitoring Plan & Implementation Schedule	Monitoring mechanisms for each of the mitigation measures of section 8.1 should be addressed in this.
175	265	8.2. Environmental Monitoring Plan & Implementation Schedule	The index column does not have any content.
175	265	8.2.1. Hydrology & Drainage	What is the 'use of silt and oil' for monitoring stormwater quality? Please provide complete sentences.
176	266	8.2.1. Hydrology & Drainage	Why is daily/ weekly both mentioned under the stormwater quality parameter? Shouldn't it be one?
177	266	8.2.1. Hydrology & Drainage	It is suggested to provide copies of these lab test results to both CA, MEPA and CCD on a monthly basis at least.
178	267	8.2.3. Biological Aspects	Is a biodiversity expert to be separately contracted by PP?

Comment No	EIA Pg No	Section	Comment
179	267	8.2.3. Biological Aspects	The debris on site will not be only acacia trees. There will be grasses, marsh associated vegetation and others. What is the mitigation for those and the monitoring mechanism?
180	267	8.2.3. Biological Aspects	The creation of the butterfly garden should have a timeline as the contractor and lakdhanavi are responsible.
181	268	8.2.3. Biological Aspects	Loss of access to the fishing ground is a social issue.
182	268	8.2.3. Biological Aspects	Solid waste monitoring is mentioned under 8.2.2. Surface and Ground Water Quality and Waste Management with a weekly frequency whilst in the biological aspects section, it is mentioned as daily/ weekly.
183	272	8.2.7. Socio-Economic considerations	Traffic issue monitoring and loss of access mitigation monitoring are not included.
9. Conclusions and Recommendations			
184	275	Conclusions and recommendations	It is suggested that the content of this EIA is revisited to properly address the environmental (especially ecological) issues that will be caused by it in order to develop holistic mitigation measures.
185	275	Conclusions and recommendations	The importance of this project is understood, however, the long-term viability of this plant and the investment feasibility is not properly addressed. The FSRU is completely ignored in this report although it would be the critical requirement for the sustainability and justification of this project.
Annexes			
186		Annexes	Approval letters as mentioned in section 1.10 not included within the annexes.
187	293	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Hibiscus tilliaceus</i> - NCS should be NE as it is not on either red lists
188	294	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Tinospora cordifolia</i> - NCS is LC according to the 2020 red list; not VU
189	294	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Imperata cylindrica</i> - NCS is DD according to the 2020 red list; not LC
190	295	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Cardiospermum microcarpum Kunth</i> ▲ - is NT according to the 2020 red list; not NE

Comment No	EIA Pg No	Section	Comment
191	295	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Acrostichum aureum</i> – NCS should be LC; status not given in annexe
192	295	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Minervarya syhadrensis</i> – NCS should be NE; it is not on any red list (2020 or 2012)
193	296	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Trachemys scripta</i> – NCS should be NE; it is not in the 2012 red list. The annexe does not provide the NCS.
194	297	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Spilopelia suratensis</i> – NCS should be NE; it is not on the 2012 red list
195	297	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Aerodramus unicolor</i> – NCS should be NE; it is not in the 2012 red list
196	297	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Hierococcyx varius</i> – NCS should be NE; it is not in the 2012 red list
197	297	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Gallirallus striatus</i> – NCS should be VU according to the 2012 red list
198	297	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Zapornia fusca</i> – NCS should be NE; it is not in the 2012 red list
199	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Ardea alba</i> – NCS should be NE; it is not in the 2012 red list
200	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Ardea intermedia</i> - NCS should be NE; not in 2012 red list
201	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Microcarbo niger</i> - NCS should be NE; not in 2012 red list
202	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Hydrophasianus</i> - Only genus is given, species name missing
203	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Psilopogon rubricapillus</i> – NCS should be NE; it is not in the 2012 red list
204	298	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Psilopogon zeylanicus</i> – NCS should be NE; it is not on the 2012 red list

Comment No	EIA Pg No	Section	Comment
205	299	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Lalage melanoptera</i> – NCS should be NE; it is not in the 2012 red list
206	299	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Corvus macrorhynchos</i> – NCS should be NE; it is not in the 2012 red list
207	299	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Cecropis hyperythra</i> - NCS should be NE; it is not in the 2012 red list
208	300	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Cinnyris asiaticus</i> – NCS should be NE; it is not in the 2012 red list
209	300	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Cinnyris loteni</i> – NCS should be NE; it is not on the 2012 red list
210	300	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	Black-winged Stilt - Family and species name missing
211	301	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Ophisternon bengalense</i> - NCS should be EN according to the 2020 red list
212	301	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Puntius chola</i> – NCS should be NE as the species isn't on any red list (2020 or 2012)
213	301	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Channa punctata</i> – NCS should be NT according to the 2020 red list
214	302	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Potanthus satra</i> - NCS should be NE; it is not in the 2012 red list
215	302	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Graphium teredon</i> – NCS should be NE; it is not in the 2012 red list
216	303	Annexe 3- Complete Lists of flora and fauna recorded in the project site and the surroundings	<i>Acraea terpsicore</i> – NCS should be NE; it is not on the 2012 red list
217	-	Annexe 6- Plant layout	Is #3 an effluent treatment plant for the sewage? Or is the sewage treatment plant #42?
218	-	Annexe 6- Plant layout	#64 is mentioned as the diesel tank in the legend however in the layout it shows a pipeline. Is it the diesel pipeline?
219	-	Annexe 6- Plant layout	is #44 BWRO or SWRO permeate tank?

Comment No	EIA Pg No	Section	Comment
220	-	Annexe 6- Plant layout	Within this layout, the largest areas are taken up by the LFO storage tanks. What will be the purpose of these tanks once the plant is running on LNG?
221	-	Annex 6-Tentative Conceptual Drainage Management Plan for the Proposed Plant	It is to be noted that the area in general does not have stormwater drains, and the roads do not have drains either. The CPTSL-Muthurajawela terminal road generally is underwater after rain. Additionally, due to the solid waste issue, existing drains and culverts are blocked by waste and do not function. These considerations should be undertaken for the drainage management plan.
222	-	Annexe 7-Comments Made by The Public NGOS and Other Agencies During the Formal and Informal Scoping Meetings Held by The EIA Team	Meeting minutes should be provided here.
Volume of Annexes			
223	591	Table 2 : Trip Generation at Operation Stage of the Traffic Management Plan	What is the unit for the inflow and outflow estimated numbers? Is it the number of vehicles per hour or per minute? If the vehicle numbers given are per hour (depending on the total given as 'average 12 hr traffic') then shouldn't the traffic flow be calculated in vehicles/ hour instead of per minute?
224	591	Table 2 : Trip Generation at Operation Stage of the Traffic Management Plan	If off-peak hours have 1 vehicle, does it mean 1 vehicle per hour or for the entirety of the off-peak hours?
225	591	Table 2 : Trip Generation at Operation Stage of the Traffic Management Plan	Which hours are considered as peak hours, mild peak hours or off-peak hours? This should be identified considering the movement of the containers and bowers of the surroundings.
226	588	2.1.1 During Construction Period of the Traffic Management Plan	Which roads/ links will the construction vehicles use when materials are required from areas away from the industrial zone?
227	589	Table 1: Trip Generation at Construction Stage (As per the estimation with the BOQ and with reference to the construction program)	3-wheelers are not counted within this estimate.
228	591	2.3.1 Route Identification of the Traffic Management Plan	This section provides traffic details of existing routes considered as links from assessments done with information from Google API. However, this assessment is not confirmed/ validated by even a sample survey. As such the conclusions taken cannot be considered corroborated. Google API only provides the speed gradient and not the volume of traffic, as such it is not proper to use it for a traffic assessment.

Comment No	EIA Pg No	Section	Comment
229	592, 592, 594	Figures 10, 11, 12 -of the Traffic Management Plan	It is highly advised that the access routes mentioned in these figures are not used by heavy vehicles moving materials. These by-lanes which are identified as access routes have only one lane, and are in highly congested residential areas. Movements of trucks will obstruct the road and cause traffic issues, deteriorate the road conditions, and are a risk to pedestrians as well. Traffic and also accidents in these roads will create social impacts.
230	595	Figure 13 : Access route from Hendala Hunupitiya road	Existing issue of traffic blockage at Elakanda junction due to movement of container trucks and heavy vehicles should be addressed, in connection with the additional load of heavy vehicles due to the proposed project.
231	596	Kerawalapitiya Industrial Zone Road	It is mentioned that this road will be developed as a 4-lane road under RDA. When is this upgrading to be initiated (RDA has been haphazardly fixing the road, only for the condition to deteriorate soon due to the extensive heavy vehicle movement and the flooding)? Additionally, was the RDA consulted regarding this power plant project?
232	597	Figure 17 : Hourly Traffic Volume on Industrial Zone Road at the Project Location	What is the source of this traffic data?
233	597	Figure 18 : Hourly Traffic Flow Variation on Kerawalapitiya Industrial Zone Road	The source and abbreviations are missing.
234	598	Table 3: Level of Service (LOS) of Traffic flow	What is the source of this traffic data?
235	598	Table 3: Level of Service (LOS) of Traffic flow	The total in/out does not tally with Table 2.
236	598	Table 3: Level of Service (LOS) of Traffic flow	Do operations at the power plant during the construction and operations period cease by 10 pm?
237	598	Table 3 : Level of Service (LOS) of Traffic flow	Why is there a large discrepancy between the 16 hr traffic and the ADT (even considering that there are much fewer vehicles from 22:00 to 24:00)
238	599	2.4.1 Excavation for Fuel Supply Pipeline	This section mentions that the access road to Ceylon Oxygen Limited will be obstructed for a short period of time during pipe laying. Have they been consulted regarding this?
239	600	2.4.2 Excavation for Sea Water Intake and Outfall Pipeline	What are the measures taken for pipe laying across the Hamilton canal?
240	601	2.5 Impact of Heavy Equipment Transportation	Approval letters from RDA are not provided in the EIA.

Comment No	EIA Pg No	Section	Comment
241	601	Figure 21 : Preliminary Heavy Equipment Transportation Map	From Kelani River Estuary - Elakanda junction should also be noted as an area of sensitivity as even in normal situations traffic congestions occur due to heavy vehicles going towards the industrial zone.
242	601	Figure 21 : Preliminary Heavy Equipment Transportation Map	From Dikkowita Fisheries Harbour - Heavy traffic near this as the bridge is used as a focal point between Negombo road/ Prithipura road and Canal Road.
243	602	3 Traffic management Plan	A simplified traffic management plan and safety instructions plan should be circulated within the community especially regarding the closure of roads/ bridges.
244	602	3 Traffic management Plan	This section discusses traffic diversion, however alternative routes are not identified within this plan. Additionally, road closure locations, durations, etc are not provided.