



EIA Gap Analysis

Smart City Development at Roches Noires, Mauritius

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Prepared by: Claude la Hausse de Lalouvière

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Acronyms and Abbreviations

Acronym	Description
AoI	Area of Influence
E&S	Environmental and Social
EHS	Environmental health and Safety
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EPA	Environmental Protection Act
ESIA	Environmental and Social Impact Assessment
IFC	International Finance Corporation
NCA	Natural Capital Assessment
NGO	Non-Governmental Organisations
RNSC	Roches Noires Smart City

1. Context and Objectives

1.1. Context

The Project Promotor, PR Capital (Mauritius) Ltd, (hereafter referred to as “The Promotor”) has submitted an EIA report for the development of a Roches Noires Smart City (RNSC) in the 3rd quarter of 2023. The report is dated August 31st 2023, entitled “*Smart City Development at Roches Noires Environmental Impact Assessment*”, (hereafter referred to as “The EIA Report”) and has been made available online for stakeholder review on October 2nd, 2023.

This current EIA submission is the second that has been submitted by the Promotor for a Smart City Project in Roches Noires, after the first submission dated March 11th 2022, was ‘set aside’ by the Mauritian Authorities.

During the current public inspection review period, which started when the EIA report was made available by the Economic Development Board online on October 2nd 2023, a number of stakeholders have raised concerns about the proposed Project. A number of these concerns had previously been identified and had been raised to the authorities after the public inspection following the submission of the previous EIA report, in March 2022.

The current EIA report contains some updated content and complementary studies relative to the EIA report submitted in March 2022. A major difference between the two submissions, is that the first report focused on the works associated with the hotel component of the Smart City, the second submission attempts to integrate the full extent of the Smart City Project. Other notable additions include the marine Biota survey, land drainage design, the natural capital assessment, updated engagements with stakeholders.

This GAP analysis report is prepared by an Independent Environmental and Social Impact Assessment Consultant, Claude la Hausse de Lalouvière, for the use of relevant NGOs (Non-Governmental Organisations), organisations focused on environmental and social challenges and Mauritian citizens that may wish to better understand and question the shortcomings of this Project and its assessment report, relative to national EIA requirements and ESIA best practices. This Gap analysis report was also prepared with the intention of supporting any entity that wishes to raise concerns and object the Proposed Development, so long as the author has granted authorisation. No part of this report should be used for financial purposes of any sort.

This report also serves as a notification that stakeholders understand the responsibility of financial entities (notably through E&S due diligence requirements) to ensure they are aware of the consequences of the Projects they finance, and that these may bear reputational risks associated with acting in non-alignment with national regulations, international standards or their own stated commitments.

1.2. Objectives

The objective of this report is to assess Project compliance with the following requirements, standards, and guidance (hereafter referred to as “Applicable Standards”):

- Applicable local, national and international environmental and social laws, conventions, regulations and standards, notably the 2002, Environment Protection Act;
- The IFC Performance Standards 1 to 8 dated 2012, including the applicable IFC EHS Guidelines (including General EHS Guideline, and any other relevant EHS Guidelines), as mentioned in the EIA report in sections 2.20 and 2.22, on pages 47-49/1446;

This report also has the objective of presenting findings to authorities participating in the validation process of the proposed Project.

2. Summary of main findings

This section presents the key findings of this assessment focusing on the Project EIA compliance with the Applicable Standards. These findings are highlighted here as potentially significant considerations for the reviewing authorities.

Some key points of concern on the submitted EIA report include:

- **Methodology:** the EIA methodology is not transparently and clearly described. It is not clearly exposed either how receptor sensitivity weighs into the Impact Importance.
- **Social Impact Assessment:** The findings of the SIA report are not reflected in the Socio-Economic Impact Assessment of the EIA report.
- **Stakeholder engagement:** Results and findings from the stakeholder engagements do not feed into the assessment of the EIA nor the design.
- **Impact Assessment:** Importance levels are not aligned with findings from the Nature Capital Assessment. Some environmental impacts are reduced to a 'minor' importance significance in the IA after application of mitigation measures even if these only superficially address the impact.
- **Environmental Management and Monitoring Plan:** Does not reflect all the mitigation measures identified throughout the report. Mitigation measures do not have well set KPIs (Key Performance Indicators),
- **Climate Change:** Findings from the climate change assessment are debatable. The projected use of resources may further contribute to Climate Change, and the greenhouse gas emissions of the project haven't been estimated.
- **Resource use and distribution:** The Project plans to increase of use of resources and these are forecasted to further increase over time. The Project is predominantly using resources for the use of a group of privileged people. This project could arguably increase the inequality in resource access and distribution.

3. Project Description

Brief passages describing the Project are transposed in this section to inform all readers of the general Project components.

As described in the EIA, 'The RNSC is located within the Riviere du Rempart District Council and Flacq District Council over an area of 360 hectares located on the outskirts of the village of Roches Noires on the east coast of Mauritius. The site is undeveloped land densely covered with vegetation except for a two-storey concrete building.'

[illegible]

The RNSC Project proposes the construction and dedicated area to the following:

- ## 4. Applicable Standards

3

more complete list of standards and regulations that compliance may consider are listed in the regulatory chapter of the EIA report, described over pages 37 to 49 (of 1446).

Part of the Gap assessment provided in this report goes beyond the direct compliance with the existing regulatory frameworks, and roots itself in responding to the ‘*Environmental stewardship*’ obligation and responsibility of civil society, as stated in the 2002, Environment Protection Act, section 2.2, in which ‘*It is declared that every person in Mauritius shall use his best endeavours to preserve and enhance the quality of life by caring responsibly for the natural environment of Mauritius*’.

5. Methodology

5.1. Introduction

The GAP analysis is structured following two distinct sections:

- Firstly, findings regarding compliance with the existing legal framework and applicable standards (see section 4), and
- Secondly, a series of questions reflecting contradictions that may exist pertaining to this Project’s undertaking and claims made in the EIA report.

5.2. Desktop review

The GAP analysis presented in this report is informed by the review of the Project EIA, as well as desktop studies related to the proposed site and outcomes of the engagement with some Project stakeholders over the course of the last couple years.

5.3. Methodology details

The methodology followed in this GAP analysis is structured as follows:

- Evaluation of the EIA content against the legal framework, structured according to the Applicable Standards (IFC E&S Standards) to identify and characterise non-compliance.

The assessment of the EIA report as compared to the Applicable Standards is conducted in a tabular form for each relevant E&S topic item. The level of conformance is evaluated as per the scale described in Table 5-1. The findings are in no way an extensive review of all the Proposed Project and EIA report shortcomings but are limited to the ones that were deemed the most pressing to acknowledge by the author. Findings of this assessment are presented in section 6.

Table 5-1 Scale of Compliance Assessment Levels

Minor Gap	<u>Minor non-alignment</u> : Minor gap identified between the content of the EIA report and applicable standards. Authorities would have the responsibility to demand these to be addressed by the Project Proponent to ensure compliance with the national regulations and best practices. These also have the potential to present minor risks (environmental, social, and reputational) to the integrity of the EIA process, but also to the Promotor, notably in the event that this requirement is not specifically addressed during the project life-cycle.
Major Gap	<u>Major non-alignment</u> : Major gap identified between the content of the EIA report and applicable standards. Authorities could consider this information and in turn require revision of these points by the Project Proponent or these could help support a decision to reject the EIA application. Non-compliance would have the potential to present major risks to the environment, stakeholders but also the Project Proponent (environmental, social, reputational) in the event that this requirement is not specifically addressed in due course.

No Evaluation	Based on the provided information and documentation, an assessment of a respective topic was not possible or deemed not relevant for the purpose of this study.
NA – Not Applicable	Indicates that the specific IFC topic is not applicable to the current Project.

Following the Gap analysis table, a series of questions are also listed (section 6.2).

These questions are rooted in the attempting to uphold citizens responsibility to care and protect the environment and to preserve quality of life, as stated in the EPA. The questions expose contradictions within the report and encourage the reader to think about some of the Project's intentions and planned undertakings that pose a significant threat to sensitive receptors which could induce repercussions on the capability of existing systems and ecosystems to sustain the quality of life of citizens and other life forms.

6. Findings

6.1. Gaps organised following the IFC Performance Standards structure

PS1: Assessment and Management of Environmental and Social Risks and Impacts		
Topic	Status and Comments on Alignment with requirements	Evaluation Ranking
Policy	<ul style="list-style-type: none"> The EIA does not present the Promotors Environmental, Health and Safety internal policy and commitments. 	Minor
Methodology	<ul style="list-style-type: none"> The methodology described (p906/1446) clearly states that : <i>to ensure uniformity, the impacts have been assessed in a standard manner so that they are comparable. A risk-based approach based on the nature, the significance of the impact, scale and duration of the impact has been used.</i> To carry out an assessment in a ‘standard manner’, it is required to present a methodology that enables the reader to understand how the ‘nature, the scale, the duration’ weighs in to justify the ‘significance of the impact’. This is not done in the assessment, and therefore the assessment criterion lacks transparency. The sensitivity of receptors is fundamental in defining the significance of an impact, yet it is not mentioned as having been considered, nor is reflected in the methodology of the impact assessment. To comply with the statement made: <i>‘the impacts have been assessed in a standard manner’</i>, it is understood that technical consistency would be reflected in sections of the report where assessments are made. Assessment approach in the SIA, the ecological survey and the EIA assessment sections are not consistent with each other. 	Major
Identification of Risks	<ul style="list-style-type: none"> The Project does not include an identification of Project induced accidental risks – notably fire hazards, technological risks, chemical spills (ex: hydrocarbons) and the associated mitigation measures, if any. Spill risks are of paramount importance given the identified high sensitivity of the potential receptors (wetlands and mangrove ecosystems). 	Major
Identification of Impacts – Area of influence	<ul style="list-style-type: none"> The Project Aol (Area of Influence) is designated as a 500m buffer around the site boundary. This designation is not sufficiently justified, knowing some of the impacts identified would extend outside this buffer, for example: marine contamination, Project induced traffic, impact on sensitive endemic habitat (ex: coq des bois). The intrinsic purpose of a Smart City Project goes far beyond a 500m buffer, indeed the report itself states that: <i>the Smart City development may eventually become the main economic hub of the North East of the Island’ (p1004/1446).</i> Additionally, this Projects’ purpose is to attract foreigners (hotel) and investment (up to 75% of housing available for foreigners). The Aol (see p1242/1446) does not seem to be aligned with the extent of environmental related impacts, nor of the socioeconomics related impacts. (p1044/1446) The SIA does not define an Aol, but locates the site relative to agglomerations and administrative boundaries, which is not the intent of what the IFC requires in PS1. Preparing an assessment based on an unfounded area of influence, can result in failing to identify impacts on key receptors. 	Major

PS1: Assessment and Management of Environmental and Social Risks and Impacts		
Topic	Status and Comments on Alignment with requirements	Evaluation Ranking
<i>Identification of Impacts – Missing impacts</i>	<ul style="list-style-type: none"> ■ The IA does not assess at all or only superficially a number of relevant impacts, notably: <ul style="list-style-type: none"> - Ecological Ecosystem Fragmentation (from bordering Bras d'Eau National Park), and from the construction of a road splitting areas of rich biodiversity value; - Impact on Fauna from road operations; - Noise and disturbance impact on the sensitive fauna identified; - Community health and safety (incl: road safety, impacts on health of the community from air quality and noise, increase transmission of STDs, increased pressure on healthcare); - Labour and working conditions (effects on gender based violence, harassment and inequalities, workers health and safety from traffic, disruption to infrastructure and utilities); - Community cohesion (community severance, loss of community cohesion, presence of workforce); - Greenhouse gas (Construction and operation) 	Major
<i>Identification of Impacts – Analysis coherence</i>	<ul style="list-style-type: none"> ■ The Natural Capital Assessment (NCA) clearly indicates natural capital loss as a result of the project on the following aspects (<i>terrestrial fauna, topsoil, forest fruits, production of oxygen, climate regulation, regulate temperature conditions, prevent soil erosion, forest filters the water, precipitation regulation, water circulation, noise absorption</i>, p162-168/1446). The NCA considers the Project mitigation measures (see figure 82, 'Proposed development' column), therefore, how it is possible that all the environmental impacts are reduced to a 'minor' importance significance in the IA after application of the mitigation measures? (Notably, when the mitigation measures can only superficially address the cause of the impact (ex: impact on ecosystems). 	
<i>Identification of Impacts – Analysis coherence</i>	<ul style="list-style-type: none"> ■ The SIA results do not feed into the EIA assessment table (p915/1446) to integrate the socio-economic impacts and risks that were identified. The only socio-economic impacts reflected in the EIA assessment tables (figure 107 and 108) are '<i>employment</i>' and '<i>expectations</i>'. The stated '<i>uniformity</i>' in assessment is therefore questionable. ■ The mitigation measures listed in the SIA are not reflected in the EIA mitigation measures table (p917/1446) 	Major
<i>Identification of Impacts – Alternatives (analysis coherence)</i>	<ul style="list-style-type: none"> ■ The alternative section is required to understand the choice behind the chosen proposed design and whether it is justified. If the promotor has bought land and therefore cannot justify that this is adequate property for the project, then this section of the report is not properly answered. Unfortunately, many stakeholders propose alternatives to both the type of project as well as the location, which are not reflected in the report. The EIA report only presents a past project that was abandoned, as an alternative. ■ (1097/1446) Regarding the alternative location section – there are no references, places nor maps to justify that any alternative location was truly considered. 	Major

PS1: Assessment and Management of Environmental and Social Risks and Impacts		
Topic	Status and Comments on Alignment with requirements	Evaluation Ranking
	<ul style="list-style-type: none"> ■ (1097/1446) The 'Do Nothing' option will also affect the economic health of PR CAPITAL, thus not envisaged. This statement may be true, but the economic health of PR CAPITAL is not a justification to avoid carrying out the EIA assessment requirements. Also, the stakeholders should not be the ones suffering the consequences of financial investment choices made by a corporation. ■ The Natural Capital Assessment concludes that the Project will cause <i>a net decrease of the natural capital of the site since the site will be redeveloped and not left as is</i> (p161/1446). While the do-nothing option describes the resulting consequences of doing nothing as negative for the <i>Native and endemic flora and fauna</i> as well as for the <i>subsurface media and ecosystems including marine ecosystems</i> (p1097/1446). If the do-nothing scenario is so detrimental for the ecosystems, then how can the project be considered, given it is assessed to be significantly worse? 	
Impact Assessment - Cumulative Impacts	<ul style="list-style-type: none"> ■ The report incorrectly states that it provides a cumulative impact assessment, and provides the justification that it integrates all components of the Smart City in the assessment. This is not the definition of a cumulative impact assessment. All components that contribute to impacts within the same EIA Project application (in this case the Smart City), should be covered in the IA report, while the cumulative impact assessment requires the consideration of other activities, and projects beyond the Project's activities and boundaries. The definition of a cumulative impact assessment, given by the European Environment Agency (EEA) is the following: '<i>The impacts arising from a range of activities throughout an area or region, where each individual effect may not be significant if taken in isolation</i>' (https://www.eea.europa.eu/help/glossary/eea-glossary/cumulative-impacts). A cumulative Impact assessment has not been done in this EIA. 	Major
Impact Assessment - Mitigation measures	<ul style="list-style-type: none"> ■ Most Mitigation measures presented in table 109 are vague and do not have tangible ways for measuring (no KPIs), and often lack a reference baseline, for example (p919/1446): <ul style="list-style-type: none"> - 'Choose construction materials with lower carbon footprints. Opt for sustainable and recycled materials, such as recycled steel, reclaimed wood, and lowcarbon concrete. - Decrease the volume of cement used and allow concrete to cure longer.' ■ Additionally, the monitoring frequency of measures is usually not specified. 	

PS1: Assessment and Management of Environmental and Social Risks and Impacts		
Topic	Status and Comments on Alignment with requirements	Evaluation Ranking
<i>Monitoring and Review Mitigation Measures and Management Plan</i>	<ul style="list-style-type: none"> In EIA reports, the assessments presented by experts, relies on the correct application of the recommendations they make. If the recommendations made are not held, then the level of impacts presented in the assessment doesn't reflect the expert's analysis. It is therefore essential that all recommendations made throughout the report are reflected in the EMMP. Making sure the recommendations are listed in the EMMP are essential for application and monitoring of all proposed measures, if the Project is approved. (Examples are measures that are not all reflected in the EMMP include ones listed at P288-289, P125, P77, 78). 	Major
<i>Monitoring Plan - Roles and Responsibilities</i>	<ul style="list-style-type: none"> The responsibility of all monitoring plan actions is placed under the responsibility of the contractor. Given the Promotor is proposing the Project, the ultimate responsible for implementation of measures is usually the latter. A distinction between responsible for application and responsible for ensuring implementation is common practice. 	Major
<i>Emergency Preparedness and Response</i>	<ul style="list-style-type: none"> The report does not identify potential emergency situations induced by the proposed Project. The EIA does not mention any Emergency Preparedness and Response Plan to respond to accidental and emergency situations. It should include the identification of areas where accidents and emergency situations may occur, communities and individuals that may be impacted, response procedures, provision of equipment and resources, designation of responsibilities, communication, including that with potentially Affected Communities and periodic training to ensure effective response. The EMP (Ecological Management Plan) allocates responsibility for the coordination of <i>ecological emergency responses</i> (p963/1446), but there are no details of the pre-defined responses. 	Minor
<i>Stakeholder Engagement</i>	<ul style="list-style-type: none"> The report claims that '<i>an appropriate Stakeholder Engagement Plan was developed to effectively engage stakeholders in project decisions and execution</i>' (1103/1446). Yet, many of the concerns and engagement questions (p1055-1064/1446) raised by Stakeholders are only partially answered and many are not reflected in the Project design. Additionally, some inconsistencies are noted between some answers provided by the promoters representative at the engagement meetings and the Project EIA. If the intent is to build a strong constructive relationship with stakeholders, why does the project suggest as a mitigation measure to : <i>Counter negative public perception via a content of smartly chosen content in the media</i> (p928/1446) ? 	Major

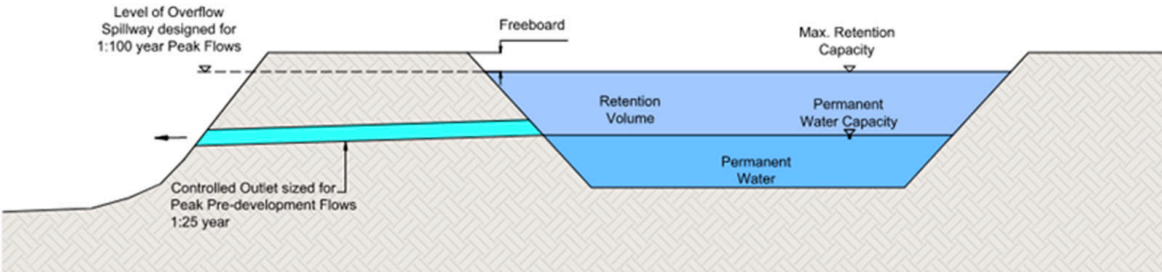
PS2: Labour and Working conditions		
Topic	Alignment Status and Comments	Evaluation Ranking
<i>Working Conditions and Terms of Employment</i>	<ul style="list-style-type: none"> No information provided about working conditions and terms of employment. 	Minor
<i>Non-Discrimination and Equal Opportunity</i>	<ul style="list-style-type: none"> Limited detail in the EIA regarding equal opportunity and fair treatment, no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation, working conditions and terms of employment, job assignment, promotion, termination of employment or retirement, and disciplinary practices. No measures indicated to prevent and address harassment, intimidation, and/or exploitation, especially in regard to women. No comment about the principles of non-discrimination applying to migrant workers. 	Major
<i>Retrenchment</i>	<ul style="list-style-type: none"> No details are provided regarding the process that will be carried out when construction job retrenchment will take place. 	Minor
<i>Grievance mechanism</i>	<ul style="list-style-type: none"> No mention of grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 	Minor
Supply Chain	<ul style="list-style-type: none"> No information is provided regarding the monitoring of its supply chain and workers that participate in it. This is made increasingly more difficult, when there is no information about the materials quantity for construction, and their source. 	Minor

PS3 Resource Efficiency and Pollution Prevention		
Topic	Alignment Status and Comments	Evaluation Level
<i>Resource Efficiency</i>	<ul style="list-style-type: none"> The predictions regarding potable water demand, irrigation water demand, energy demand, wastewater generation are all significantly high and project a significant increase over the Project lifetime. The source of these resources or generating them is either non-renewable (ex: hydrocarbons, coal, chemical additives for treatment, fossilized ground water) or/and highly depend on non-renewable use of resources. How can such a project '<i>transform</i>' a place into a '<i>sustainable community</i>' (p10/1446) given these high projected resource needs? A basis for comparison could be provided, by answering the following questions: <ul style="list-style-type: none"> How do these demands compare with the average Mauritian per capita consumption? How do these demands relate to the projection of available resources for Mauritians over the projected timeframe presented on the graph? 	Major

PS3 Resource Efficiency and Pollution Prevention		
Topic	Alignment Status and Comments	Evaluation Level
Resource Efficiency Greenhouse Gases	<ul style="list-style-type: none"> ■ No GHG Assessment for construction has been prepared for the proposed Project. ■ There is no lifecycle GHG Emissions presented in the ESIA for the Project. ■ The Project ESIA claims '<i>The development of smart cities in Mauritius can lead to reduced greenhouse gas emissions' (p977/1446)</i>, the energy and related emissions during construction is not provided and the energy use during operation is forecasted to grow significantly overtime. ■ The operational emissions related to this Project will be strongly correlated to 'luxurious' uses, given it includes a hotel, 365 luxury and 30 standard villas, and will require maintenance of luxurious activities such as a golf. 	Major
Resource Efficiency Water Consumption	<ul style="list-style-type: none"> ■ Given the important water needs of the project, and the drinking water access limitation of the area, what is the projected extraction of the Project related groundwater extraction and is there a sensible justification for it? 	Major
Resource Efficiency Construction materials	<ul style="list-style-type: none"> ■ The project description does not provide a description of the types of construction material that will be used nor the quantities needed. ■ The mitigation measures such as '<i>Choose construction materials with lower carbon footprints (p919/1446)</i>' are difficult to apply given there is no set construction material in the first place. ■ Any associated facility required for material sourcing should also be identified, described and resulting impacts should figure in the impact assessment. 	Major
Pollution Prevention Hazardous Materials Management	<ul style="list-style-type: none"> ■ The EIA does not identify the types, quantities and management of Hazardous Materials (p132/1446) planned to be used for the construction and operation of the Project, except for the golf maintenance facility. All chemicals, including paint, waterproofing, oils, hydrocarbons etc should be described as well as their disposal process. ■ The assessment claims that: '<i>no hazardous or toxic waste are expected during construction works' (p911/1446)</i>, and '<i>no toxic or hazardous waste are expected to be generated by the Smart City' (p144/1446)</i>. Yet it also includes as a measure that '<i>Used oil disposed of by approved practises' and mentions 'sludge/hydrocarbon waste separators' (p920/1446)</i>. There is therefore inconsistency in the identification, assessment and management of hazardous material. 	Major
Pollution Prevention Pesticide & Fertilizers Use and Management	<ul style="list-style-type: none"> ■ There is inconsistency in the report regarding the use of chemical products for fertilizing and vegetation control. In the natural capital assessment (p163/1446) it is stated that '<i>only organic products to be used as part of the golf maintenance' – Why is there an inconsistency between description and analysis. The natural capital assessment would need to be updated accordingly.</i> ■ The report states: <ul style="list-style-type: none"> - (p125) <i>Both organic matter and synthetic additions are proposed as a form of fertilisation for the golf turf. Since there are no proportions for each provided, this description has little value in informing the reader of the extent</i> 	Major

PS3 Resource Efficiency and Pollution Prevention		
Topic	Alignment Status and Comments	Evaluation Level
	<p>of the application that will be made. A minimum input or 'organic' fertilisation would be required to better understand what is planned.</p> <ul style="list-style-type: none"> - (p125) There is no reference to support the claim that the application of fertiliser will ensure '<i>no soil leaching</i>' and '<i>no loss of product</i>', which seems like inaccurate statements to make. - (p127) The report describes a procedure to follow if chemicals are deemed '<i>necessary</i>' to remove undesired vegetation growth. There is no definition of the chemicals that would be considered for use, preventing an assessment of their level of impact on the surrounding environment. A list of chemicals is essential to evaluate the resulting impacts. <ul style="list-style-type: none"> ■ Other missing information include: Information on fertilisers or pesticides considered, compliance requirement, labelling, packing issues, recommendations for the use of the pesticides, restrictions of use, etc. 	

PS 4: Community Health and Safety		
Topic	Alignment Status and Comments	Evaluation Level
<i>Infrastructure and Equipment Design and Safety - Decommissioning</i>	<ul style="list-style-type: none"> ■ The decommissioning should be included in the IA and mitigation measures should be prepared accordingly. The report states that: <i>It is not likely or anticipated that the Smart City will require decommissioning</i> (p1106/1446). This statement needs an associated timeframe to be relevant. Most of the proposed infrastructure of the RNSC has a service life (see engineering clauses) after which decommissioning or rehabilitation is typically carried out. ■ Decommissioning activities typically present relatively high risks of incidents and injuries, notably for the members of the public. Associated hazards and impacts are part of EIA reports. 	NE

PS 5 Land acquisition and involuntary resettlement		
Topic	Alignment Status and Comments	Evaluation Level
Involuntary resettlement	<ul style="list-style-type: none"> The report states that there will be <i>no displacement of population</i> (p1044/1446). Nonetheless, a stakeholder engagement participant mentioned that some people had been removed from the land they were living on (p1062/1446). The promoters representative answered that they would inquire the case. Has this been confirmed? 	Major
PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources		
Topic	Alignment Status and Comments	Evaluation Level
Hydrological changes	<ul style="list-style-type: none"> As the report indicates, the Drainage impact assessment has been produced following the guidance of <i>how drainage systems should be implemented in development projects</i>. It is not an impact assessment but a detailed drainage design explanation. In other words, this guidance relates to the technical aspects to consider when performing an engineering design, but is not prepared to assess the resulting impact on the environment. For this proposed Project, key parameters that should feed into the ESIA from the drainage report is the variation in runoff and whether there are variations in the discharge rates into existing ponds / the barachois / sinks, as a result of the Project. It is understood that increased runoff due to Project impermeabilization is designed to be directed towards detention ponds, but no further information is provided regarding potential discharge of these ponds, location of discharge and change significance relative to the baseline condition.  <p>(p149/1446)</p>	Minor
Habitat	<ul style="list-style-type: none"> Indigenous birds, insects, mammals, reptiles will experience considerable habitat loss as a result of the development as well as a potentially increased risk of exposition to noise, vibration and pollution. The mitigation proposed is only to some degree capable of addressing the issue and therefore does not justify the reduction of the impact level to 'minor'. Many of the indigenous life that is proposed to increase in population may not be compatible with the changed habitat that is proposed by the project. For example, the Poule d'eau typically needs tranquility, and may not be capable of 	Major

PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources		
Topic	Alignment Status and Comments	Evaluation Level
	<p>livings within a 30m wetland area buffer. How can the Project achieve the objectives given if the requirements for habitat may be compromised? Is a Smart City truly favourable to sustained and / or growth of endemic fauna?</p>	
Habitat – Mitigation measure	<ul style="list-style-type: none"> The Flora and Fauna Survey section of the report (p170/1446) mentions that the promotor should ‘<i>take an engagement to replant with three plants (native, fruit and flowered trees) for each felling one</i>’. Firstly, a commitment like this one does not take into account the time implication of growth to happen and ecological cycles that depend on grown trees. There is a compensation that is inequivalent and debatably not relevant. Secondly, a tree existing in a ‘<i>dense vegetation</i>’ ecosystem has established a number of connections with other species, which a newly planted tree would never be able to recreate in the exact same way, and even less so during its early life stages. Given the existing site is a ‘<i>densely vegetated area</i>’, then how will the promotor plant 3 times the number of trees felled, given the Project only allocates 5.7 % of the whole land surface to conservation areas and 15.8% to natural landscape features on the golf course? Should the tree density not replicate the existing ‘<i>dense vegetation</i>’? 	Major
Legally protected and internationally recognized areas of high biodiversity value	<ul style="list-style-type: none"> (p59/1446) The report indicates that the Bras d’Eau National Park is located at approx. 2km from the site, yet it seen as bordering the site on a southern boundary. Why is this ESA incorrectly located; further than it actually is? This has to be addressed as well as any derived assessment implication. Any receptor sensitivity that may have been reduced as a result should be amended (ex: sensitive and indigenous fauna and flora of the National Park). There is no mention of ‘<i>The Coq de bois</i>’ in the EIA, although it is that is ‘<i>living in Roches-Noires</i>’ and <i>mishandling of its habitat may lead to its extinction</i>’ (1010/1446) (ref: Mauritius Wildlife Foundation). 	Major
Sustainable management of Living natural resources	<ul style="list-style-type: none"> The <i>Flora and Fauna survey</i> focuses nearly exclusively on assessing the presence of indigenous flora and fauna species, and associates the presence of exotic species as a threat to the survival of native species. The presence of exotic species is therefore assessed as ‘negative’ overall, as it is described as occupying space and in the case of ‘invasive’ species, it is assumed that these will occupy more space over time. This perspective can be justified when one is comparing an existing forest to a primary forest, as is done for this assessment (see methodology and primary vegetation description presented on pages 177-179/1446). In the case of an impact assessment for a proposed project, the coherent approach would be to compare the baseline forest value to the proposed forest remaining under the Proposed Project scenario, and not to a primary forest. In this case, it is important to be reminded that the Project Proposes to allocate only 5.7% to conservation areas, 15.8% to natural landscape, and 17.5% to the wetland area (mostly composed of water surfaces or mangrove), with the remaining being highly disturbed or artificialized land cover. 	Major

PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources		
Topic	Alignment Status and Comments	Evaluation Level
	<p>To the contrary of disturbed and artificialized land surfaces, land covered with exotic species contributes to organic matter production and provides food and habitat to the existing exotic and indigenous fauna and flora. It is also more conducive at stabilizing the freshwater cycle, facilitates water infiltration, prevents topsoil erosion, prevents ecosystem fragmentation, absorbs CO₂, increases the genetic biodiversity, provides lesser pollution and disturbances (ex: noise – as described at p 60/1446). It also ‘invades’ land where some indigenous plants exist at a significantly lesser rate than a bulldozer, which will be used during the vegetation clearing phase of the Project.</p>	Major
Ecosystem Services exacerbated by climate change	<ul style="list-style-type: none"> ■ The potential impacts on priority ecosystems (mangrove) that may be exacerbated by climate change induced sea level rise, have not been mentioned. How is the 30m buffer zone proposed planned to survive coastal squeezing as a result of Climate related sea level rise, given the Project does not provide the possibility to retreat? How much will it reduce in size as a result under the different IPCC projection scenarios over the ‘indefinite’ (no decommissioning) lifetime of the Project? ■ <i>Each protected wetland area has a required buffer zone allowance of a minimum of 30m throughout the site in accordance with ESA committee's guidelines and under the supervision of National Parks and Conservation Service (NPCS) (p120/1446).</i> The reference to this threshold was not identified in the report references, nor was it found in the native terrestrial biodiversity and national parks act 2015. It would be useful to facilitate access to this information. ■ <i>Additionally, a voluntary buffer of 100m is being observed by the developer (p1022/1446) – this statement made during the stakeholder engagement is not presented in the EIA, nor justified why it wasn't carried out.</i> 	

6.2. Technical coherency

The following section presents findings and raises questions to reflect on the required objectivity in the preparation of an assessment report.

6.2.1. Justification for land degradation

A tiny fraction of the island of Mauritius is covered with native vegetation (<2%), as a result of active removal to establish a sugarcane monoculture over the last centuries. The global scientific community recognizes that the world is currently facing a mass extinction of species, and Mauritius ranks amongst the highest countries at risk of losing hundreds of indigenous species. This concern was actually raised by stakeholders on the 24th of April 2023 (p1055/1446). Given this context, more and more scientists, policy makers and even corporations are claiming to attempt to reverse this trend.

- **How can one justify the destruction of over 300 hectares of land that has been spared from harmful intensive agricultural practices, which still inhabits a range of indigenous and mature exotic species and thriving ecosystems, given the large amounts of ecologically degraded land available?**
- **In addition, would the low financial return from the sugar exports be a further justification to select this type of ecologically poor land for any type of ‘needed’ further ecological degradation under the justification of ‘development’?**

6.2.2. Golf development strategy recommendations

The golf development strategy for Mauritius prepared in 2002 (Jeremy Pern, 2002), which the EIA report refers to on page 29, section 2.3, identified to point out that the project finds itself inside a ‘golf cluster’, also clearly states that golf courses should be proposed on **reconverted sugar land**, and indicates the importance of **restoring the wetlands to their original pristine state**, as per the citation below:

‘Where courses are proposed for reconverted sugar land ecological impact will be low to non-significant. More attention should be given to coastal scrub forests and wetlands as they do support a range of flora and fauna, even if the majority are non-native to the island. At the very least these areas have landscape value and the wetlands fulfil important hydrological functions. The Republic of Mauritius is a signatory of the Ramsar Convention on Wetlands. In this context, development on or around wetlands should not in principle be permitted – that includes all types of development, golf course, hotel or other.

Many studies are currently being carried out by the Ministry of Environment concerning the rehabilitation of wetlands in their original pristine state and the acknowledgement of their vital function as filtration systems and areas used by migratory birds which is not normally compatible with major development. There is a presumption against development on wetlands, which will be closely scrutinised by the Ministry of Environment at the EIA level. If a golf project is to get through this stage, it will clearly have to demonstrate that it will not adversely impact on the hydrological and ecological functions of such wetlands.’

- **How does the Project justify going against the golf development strategy that it refers to as a site location justification?**

6.2.3. Natural Capital Assessment inconsistencies

The following comments relate to findings related to the Natural Capital Assessment. For all items that require a modification, the net impact score needs to be reassessed (including: Marine Fauna, Barachois and Mangrove fauna, wetlands, nutrient cycling, pollination, Aesthetic/scenic beauty and tranquillity):

- (p163/1446) *‘Only organic products to be used as part of the golf maintenance.’* Project Description states differently.

- (p163/1446) *'Stormwater onsite will be directed to over 50 onsite retention basins.'* This statement is not a proof of satisfactory retention. Please indicate whether there will be or not an increase in runoff into determined sinks during rainy events and the resulting impact.
- (p167/1446) *'Nutrient cycling: Some areas of the development will be cleared to allow for construction works, however for each tree cut, 3 trees will be replanted.'* As explained, this is a flawed 'equivalency'. Additionally, how can we justify that only indigenous species contribute to nutrient cycling, when exotic species are equally capable?
- (p167/1446) *Pollination: Some areas of the development will be cleared to allow for construction works, however for each tree cut, 3 trees will be replanted.* As explained, this is a flawed 'equivalency'. Are exotic trees incapable of contributing to pollination?
- (p167/1446) *Aesthetic/scenic beauty and tranquillity* – is assigned a subjective note in the report but some aspects weigh quite heavily on one side. The project argues that the scenic beauty of the area will be preserved as much as possible. The natural beauty is therefore the reference and altering it in any way can only become 'less scenic'. Regarding tranquillity, it is evident that more development, traffic, machinery will induce added noise relative to an 'undisturbed' baseline.

The proposed development plans to create a research centre for medicinal plants, yet it plans on removing the existing exotic medicinal plants and does not identify medicinal plants to carry out research on. How is the justification for this assessment net positive? How will access to stakeholders be available, as was the pepper and other exotics before the Project?

6.2.4.Climate Change

The Climate change assessment chapter raises some of the latest IPCC report findings, notably that:

'Rapid and far-reaching transitions across all sectors and systems are necessary to achieve deep and sustained emissions reductions and secure a liveable and sustainable future for all. (p900/1446)'

The intent of the Project in itself is feeding into the same systems that are putting at risk the capability we have to move towards a sustainable future for all. The level of resource extraction and energy needed for the construction and operation of this Project, is not aligned with helping to achieve the needed sustained emissions reductions. It is therefore further contributing to preventing us from *securing a 'liveable and sustainable future'*.

'Prioritising equity, climate justice, social justice, inclusion and just transition processes can enable adaptation and ambitious mitigation actions and climate resilient development. Adaptation outcomes are enhanced by increased support to regions and people with the highest vulnerability to climatic hazards.'

The Project also contributes to extractive practices causing life destruction (fauna and flora), and distributes resources and their access extremely unequally (only a portion of the Project property will be available to some of the most privileged Mauritian citizens).

The EIA report also states that RNSC encompasses all of the Government of Mauritius' climate change mitigation measures and Key adaptation and mitigation elements in cities (p904/1664). The mitigation measures are broad and can be interpreted in different ways, but one needs to truly misunderstand the climatic crises to believe that a Project turning densely vegetated land with sensitive ecological receptors into an urbanised development that includes high end villas, hotel and a golf course is helping to address this crisis in a 'just' way.

The development is clearly opposed to the following listed measures (p904/1446):

- *Shifting to a low-carbon economy* – When the Project requires large carbon intensive resources to build and to operate.
- Tree planting and Creation and maintenance of mini-forest, Nature Walk, urban forests, Parks and Garden – in an area that is already more vegetated than proposed by the Project.

Table 6-1 - Information coherence

EIA Quote	Comments and clarification requests
<i>'Protection of views and vistas to the surrounding landscape' (p12/1449)</i>	Given the Project proposes to completely change the landscape, how can one state that the views of the current landscape will be protected if they are bound to disappear?
<i>'Buildings relate positively to the street' (p12/1449)</i>	This statement sounds like one out of a retail brochure. Who is legitimate to assess what is the 'positive' relation of a building to a street?
<i>'Retain the integrity of the site's natural features' (p12/1449)</i>	This statement is repeated throughout the text. To be very concise, the integrity of many 'natural features' is currently at risk of disappearing. Therefore, the choice of words is unclear and misleading. How can one 'retain integrity' of something that it is bound to disappear?
<i>'the development of Smart Cities across Mauritius in order to transform Mauritius into a global smart country, a centre of excellence for international business and knowledge development, which will create a sustainable circle economy with a high quality of life' (p21/1449)</i>	Transforming some of the biodiversity rich remains in Mauritius to a predominantly urbanized and turf lawn area could arguably not be very 'smart', if one is attempting to work towards a 'sustainable' economy.
<i>The development and the transformation of the existing environment will have no impact on the flora community, which is of high density of alien exotic species been introduced, and most of the plants are classified as highly invasive species (267/1446)</i>	Some statements made in the assessment are not backed with scientific evidence nor are justified adequately. <i>Transforming the existing environment</i> (artificialisation of large surfaces) will include stripping of existing flora and fauna lifeforms, which are an integral part of the <i>flora community</i> . And no action however small it is, has 'no impact'.
<i>(p924/1664) Remaining plants will still provide fresh oxygen through the process of photosynthesis.</i>	What is fresh oxygen? What about the absorption capacity loss of the removed plants?

7. Bibliography

- Tessa Wortman, R. D. (2016). *'They are stealing my island': Residents' opinions on foreign investment in the residential tourism industry in Tamarin, Mauritius*. Western Cape: Singapore Journal of Tropical Geography.
- Jeremy Pern, D. S. (2002). *GOLF DEVELOPMENT STRATEGY FOR MAURITIUS*. Ministry of Tourism of Mauritius.