



ENVIRONMENTAL FOUNDATION
(GUARANTEE) LIMITED

COMMENTS ON THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT OF THE PROPOSED DURIAN PLANTATION AT MAPAKANDA, NAWALAPITIYA

9th October 2018

09/10/ 2018

Director General,
Central Environmental Authority,
No. 104,
Denzil Kobbekaduwa Mawatha,
Battaramulla.

Dear Sir,

Comments on the Environmental Impact Assessment Report (EIAR) of the proposed Durian Plantation at Mapakanda, Nawalapitiya.

In response to the website notification appearing in the “Central Environmental Authority website: http://www.cea.lk/web/?option=com_content&view=article&layout=edit&id=1257”, on the above-mentioned project, the Environmental Foundation (Guarantee) Ltd (EFL) hereby forwards comments on the Environmental Impact Assessment (EIA) report.

The comments on the EIAR are as follows:

Objective of the proposed project and justification (Page 2) – Under this section, it has been stated that in Annex XVI, affected tree list including height and diameter at breast height (DBH) value in inches prepared by the Forest Department is attached but the attached Annex XVI does not contain such a list. It only contains a summary of number of *Pinus* trees and their respective plot number and the extent. However, according to Annex IX, the Forest Department has requested a summary document with the heights and the DBH values of all the *Pinus* trees.

Section 2.4.11: Future additions / expansions (if any) (Page 33)

The report has stated “location of the dairy farm is given in project layout plan which is attached under Annex VI.d.” but it has not been given in the project layout plan map.

Section 3.1: Meteorology (Page 39)

The data used to identify the rainfall pattern are from 1995 (Table C.1) which is more than 25 years ago. With the climate change predictions weather patterns could be different when compared to 25 years ago. As mentioned in page 27 that no irrigation water will be required for Durian plantation since adequate rainfall is received (rain will be received more than 9 months of the year). However, if the rainfall pattern changes under climate change, it is likely that there will be need water for irrigation. In contrast, it has been reported that intense rainfall has made it harder for Durian trees to bear flowers leading to drop in the harvest. Therefore, analyzing the weather pattern accurately and possible resource requirements under future climatic conditions is important to predict whether the Durian cultivation will be profitable and sustainable in long term.

Susceptibility to erosion / landslide (Page 49)

In page 49, 2nd paragraph, 4th sentence is incomplete.

Section: 3.6 Ecological Resources (both terrestrial and aquatic)

According to the faunal list provided, critically endangered endemic Great forest gecko (*Cyrtodactylus fraenatus*) has only been found in the *Pinus* Plantation area. No measures have been taken to conserve this highly threatened endemic species.

Loss of soil productivity (Page 73)

It has been stated that control of forest fires is mandatory for maintenance of the soil productivity of the project area, otherwise it will lead to less productive durian plantation losing profit of the plantation in the long run. However, measures have not been given as how forest fires will be controlled.

Loss of biodiversity (Page 76)

It has been stated that “single species plantations such as *Pinus* lands support very little growth of nation plant and animal species (Annex XVII- I and II) and hence supports very little diversity of fauna and flora”. Since Durian plantation is also a monocrop cultivation what would be the difference? Many studies have shown that monocrop cultivations lead to loss of soil productivity which could affect the harvest in the long run.

Studies have shown different gardening types such as durian and forestry gardens, durian and jungle fruit tree gardens, durian and para-rubber gardens are important for food security because wide variety of crops will be available as subsistence agriculture in community and also it is important for conservation of ecology especially water source. The different of canopy layers decrease the impact of raindrops and the fallen leaves decompose, release mineral and protect the evaporation, while attenuating runoff (Radchanui and Keawvongsri, 2017).

Disturbance to animal migratory pathways (Page 76)

Disturbance to animal migratory pathways have been identified as an ecological impact. Studies have shown that many areas in the central hills are inhabited by leopards which are also heavily impacted by people. The leopard’s adaptability and elusiveness allow them to inhabit both forest and non-forest habitats as well as plantations such as *Pinus* (Kittle et al, 2014). However, no mitigatory measures have been taken to reduce the conflict that may arise between wildlife and humans. Further, it is important to conserve the forest areas without human disturbances which could provide protection for the wild animals including key stone species such as leopards. In page 3, it states that one of the aims of the project is to reduce wild animal threats to the community which will not be fulfilled unless necessary measures are taken.

Significant Environmental Impacts (page 80)

It has been stated that “any environmental parameter received the value of 2.5 or more were defined to be significant (Annex XIX)”. According to Table 4.1, reduction in flora and fauna have been identified as significant impacts on biotic environment. In contrast, last paragraph of page 80 states that “the project does not lead to any significant impact on the biotic environment”. It appears that ecological impacts have not been taken into consideration. The ecological impacts will also have a direct impact on ecological services as well.

Water Conservation measures (page 82)

The application of fertilizer and pesticides has to be well managed as excess fertilizer/pesticides will leach through the soil or will be washed off with surface runoff leading to both surface and groundwater pollution. It is known that when the durian tree is about 20 years or older, its yield starts to decrease, thus application of excess fertilizer should not be conducted with the intentions of getting higher yields. Heavy metal contamination of water due to fertilizer/herbicide/pesticide application have been recorded to lead to cancers, neurological disorders, birth defects and kidney failures in humans.

Cost Benefit Analysis (page 86)

The cost benefit analysis has only considered the direct costs and benefits of the major facilities and equipment that will be used for the project. Since mitigatory measures for ecological impacts have not been stated, cost for those mitigatory measures will alter the estimated costs and benefits. Also, indirect benefits gained through ecosystem services by maintaining the original habitat have not been considered. The ecosystem services could

be either provisioning, such as the production of food and water or regulating, such as the control of climate and disease or supporting, such as nutrient cycles and crop pollination or else cultural, such as spiritual and recreational benefits. Therefore, it is important to consider the value of ecosystem services to understand the long term benefit/impacts that the proposed durian plantation would have on the environment and the communities.

End of comments.

Yours faithfully,



Chaturangi Wickramaratne, PhD

Head of Science



Uvini Senanayake

Projects Officer

COMMENTS ON THE ENVIRONMENTAL IMPACT
ASSESSMENT REPORT OF THE PROPOSED DURIAN
PLANTATION AT MAPAKANDA, NAWALAPITTA

30th October 2018