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சுற்றாடல் நீதிக்கான கேந்திர நிலையம்
Centre for Environmental Justice



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15th December 2017

Director General
Department of Coast Conservation
4th Floor, Ministry of Fisheries Building,
New Secretariat, Maligawatta, Maradana, Colombo 10
SRI LANKA

Dear sir,

Subject: Comments on EIA of Development Activities and Infrastructure Facilities within the Reclaimed Land Area of Proposed Colombo Port City Development Project

Centre for Environmental Justice is a public interest environmental organization based in Sri Lanka established in 2004. We herewith send our comments to the above EIA under the request for public comments as per the section 16 of the Coast Conservation Act (No. 57 of 1981).

In principle, this EIA process is a greenwash and we know that you are unable to make any changes to the project design or project itself as it is already beyond your capacity. However, it is our moral duty as the citizens who still believe that participation in development decision is a right gained through the struggles for many years. Therefore, we would share our concerns as below.

AIR QUALITY

EIA report estimates that daily public transport trips in the Port City will be increased by about 300,000 which will add more vehicular emissions to the air than the existing. Even though emission free modes of transportation are promoted within the port city, still there would be a considerable increase in emission in the others areas.

It further states,

“Study carried out by CEA projected that level of various air pollutants viz. SO₂, NO₂, CO, O₃ and VOC have been less than the maximum permissible levels stipulated by the World Health Organization (WHO). However, a comparative analysis on PM₁₀ reveals that the pollutant level has relatively been stable within 70-80 µg/m³. This was found to be much higher compared to WHO guidelines for which the maximum permissible level is 50 µg/m³.”

According to Ambient Air Quality measurements at Fort Railway Station in 2014 even though NO₂ and CO maximum concentrations were within local AAQ standard, while that of SO₂ and PM₁₀ were occasionally observed to exceed the respective standard.(Table 4.1)

Table 4.1: Measured Maximum Concentrations of SO₂, NO₂, CO and PM₁₀ at Colombo Fort

Air Pollutant	Measurement Date	Measured Maximum Concentration	AAQ Standard
SO ₂	02.01.2008	0.104 ppm	0.08 ppm
NO ₂	20.11.2008	0.103 ppm	0.13 ppm
CO	04.01.2008	2.86 ppm	26.0 ppm
PM ₁₀	07.11.2008	146 µg/m ³	100 µg/m ³

*Source: (JICA, August 2014)

The traffic generated due to the project would make the situation worse, if not properly addressed, this conditions can create photochemical smog which is hazardous to human health. Colombo should not become another New Delhi.

NOISE AND VIBRATION

Phase 1 of the project which consists of high rise buildings are close to the land side. Therefore, within the first few years there will be a considerable noise and vibration.

Table 5.6: Past Records of ENL Noise Levels At Selected Receptors

	ENL dB(A)		
	Location ID	Day Time	Night Time**
CICT Building	N1	66	62
End of the Galle Face	N2	67	64
Kingsbury Hotel	N3	67	63
Start of the Galle Face (Galle Face Hotel)	N4	70	65
Old Parliament (President Office)	N5	65	60

Source: ITI Report No. CTS – 1417374

**In the absence of near sources, the measured noise levels can be far less in the range of 50-55 dB(A) during night time

According to table 5.6 of the EIA report, the noise level around this area has already exceeded the permissible level (for medium noise area day time: - 63db night time 50 db) in areas around the project site. Construction activities, noise of machineries and extra traffic would add more noise. If possible it is recommended to locate the asphalt and concrete batching plant further away from the landside (Currently it is very close to the land side)

Vibration was already a major issue during the last few months. Even the H.E. President raised this issue during one of the meeting held in the presidential secretariat.

The EIA suggest that “Interim standards for noise and vibration limits have been implemented. Monitoring schedule is prepared under EMP to ensure that during all phases the level is monitored and does not cause detrimental impacts to the inhabitants nor the environment.”

We believe further studies have to be carried out in order to control vibration.

BIO DIVERSITY

EIA report states that “Palagala, Vatiya gala and Madigala reefs are located close to the reclaimed Port City site. Palagala is the closest reef to the project area. Vatiyagala is located approximately 4km offshore in the 30m depth contour which extends from Panadura to Colombo which has been recently recovered completely.”

However, according to the fishermen in the area this is not true. Further, coral reefs from Colombo to Negombo area has been severely destroyed by the port city project due to sand

mining. Therefore, special measures need to be taken in discharging construction waste water and storm water safely in to the sea.

SOLID WASTE GENERATION

The estimated production of solid waste in Port City is around 375MT/Day at the year 2040 and at present generation of solid waste in CBD of Colombo is 850MT/Day. Waste separation,3R concept suggested in the EIA are good approaches. However, we propose that the project should promote ZERO waste principles.

EIA states that the collected solid waste (disposable) during operational period will be directed to Solid Waste Treatment Plants at Karadiyana, Muthurajawela, and Aruwakkaru which will be in operation in three years from now. However, Muthurajawela is an ecologically important wetland and disposing waste in the area would destroy the ecosystem and associated biodiversity. Since the port city project facilitates green strategy, it would be beneficial to promote onsite composting and using the output for gardening works rather than transporting elsewhere.

SOCIO ECONOMIC ISSUES

Fort is considered as one of the major economic center in Colombo. With the creation of port city this economic activities could be diverted into port city area resulting socio economic issues. Small scale Vendors can be affected. This has not been addressed in the EIA report.

FLOODING

Beira Lake outfall is located just beneath the south corner of the outer breakwater of Port City. Beira lake act as a flood control system around Kelani River facilitating the flow of excess water in Kelani river to the sea. Due to the outer breakwater of Port City, Beira lake outfall could be blocked creating a flooding situation.

WASTE WATER DISCHARGE AND STORM WATER MANAGEMENT

The responsibility of maintaining the sewerage infrastructure within the Port City will fall on the CMC, once the internal sewer network of the Port City will be laid by the developer. The Estate Management Company of the Port City needs to discuss on this regard and agree with the GOSL and the CMC in the future. Mixing of waste water with storm water should be avoided.

WATER QUALITY

During the construction period, there is a high potential to generate sediments and other pollutants which can destroy the nearby reefs and aquatic life. Proposed Marina is a non-point source of pollution. It is important that measures suggested in the EIA (table 5.7) to prevent water pollution are implemented.

Figure 1.1 (Chapter 1, p. 6) includes the marine area: the diagram shows the land that will be filled into what is still nearshore marine habitat.



Figure 1.1: Project Development Area (Reclaimed land of 269ha)

Recognizing that this document is not meant to review the impacts to the marine habitat in as great a detail as the 2015 SEIA was meant to do, it is still important that the proponents design this new development in such a way that wastewater and stormwater runoff are contained and treated.

The EIA does state that nearshore water quality has been monitored since 2014 (Ch. 1, p. 10). The authors lay out the potential impacts in detail in Chapter 5 (pp. 28-31), and they single out the coastal water quality impacts (Ch. 5, p. 35):

“(b) Impacts due to Water quality

During construction activities; dredging, mining, piling, as well as during construction period; storm water, land runoff and waste disposal can collectively contribute to general degradation of marine area both within and surrounding areas of Port City through a number of impact vectors (e.g. salinity changes, turbid plumes, sedimentation, resuspension, release of contaminants, and bathymetric changes). Storm water runoff which contains suspended solids, petroleum hydrocarbons and other pollutants can contaminate the lagoon area within Port City and in adjacent waters would resultant salinity change, increase turbidity, sedimentation and in long run bathymetric change. Reefs in adjacent sea area get smothered and burial of macro-benthos as they silted caused by enhanced sedimentation. Sedimentation also results in the formation of sand bars across the sea outlets of Port City (lagoon and canals), reducing water exchange with the sea and leading to an accumulation of pollutants. Shrimp and fish recruitment and ecosystem productivity may also affect due to reduce light penetration, increase turbidity and siltation as fish eggs, larvae, and early juveniles are more sensitive to pollution than adult fish.”

For freshwater, the suggested mitigation measures are reasonably well-articulated. They state (Ch. 5, pp. 31-33):

“5.3.3 Mitigation Measures

All of the impacts identified above can either be eliminated or mitigated to minimize the negative effect of water quality deterioration of the aquatic environment of Port City. The following mitigation measures are designed to be practical and cost-effective in achieving compliance with water quality standards and should be undertaken by the construction contractor during the construction period.

- Suspended solids in runoff should be reduced by setting up of a good surface drainage system (storm – drainage system) with suitably designed catch-pits to retain sediment. Silt removal devices should be well-maintained. For areas where no drainage system is present or prior to drainage system being constructed, sediment should be collected by excavating a pit into which surface runoff is directed and where settlement and/or infiltration can occur. A mobile sedimentation tank should also be provided to reduce the suspended solid level of the wastewater.
- It should be noted that marine environment at Gall Face is an ecologically sensitive receiver. The area considered as spawning and nursery grounds of lobsters, shrimp and fish. Any construction activities close to the area should be regarded as of particular concern. Silt traps should be installed and well-

maintained to prevent any silty runoff from entering the adjacent sea area. All wastewater generated during construction must be monitored and treated as necessary prior to discharging into storm-drainage system.

- Stockpiles should be covered during wet season to avoid generating silty runoff. A surrounding drainage system and the use of flat and exposed permeable area should be provided to facilitate control and infiltration of site runoff.
- Site cleanliness and immediate cleanup / remedial action in case of chemical spill (such as fuel) are the most effective mitigation measures to minimize water quality impacts from general site run-off and should be adhered to in all construction sites. In addition, adequate sanitary facilities for workers on site should be provided and grease trap facilities should be installed for any canteen facilities.
- Concrete washings will increase pH in receiving water bodies. Close monitoring of pH should be conducted to avoid damage to the marine ecology. Buffer agents should be added where necessary to neutralize concrete wastewaters before its discharge to stormdrains. A particular location within the site away from any water receiver should be selected for washing the concrete mixer. Infiltration/sedimentation pits should be used to settle out washings before discharge/treatment. Bored-pile suspension should also be settled in infiltration/sedimentation pits.
- Oil interceptors should be installed for marina, maintenance workshop and storage areas. These should be emptied regularly and should have a by-pass to prevent flushing during periods of heavy rain.
- Public road should be paved, with bricks to prevent wash water or other site runoff from entering public road drains.
- Sewage generated should be discharged through sewerage network to treatment works before connect to the central sewerage system. Hence, no adverse impact on the water quality is expected. The effects of existing pollution sources (e.g. Beira Lake outfall) are anticipated to remain the same, or improve in coming years.
- Adequate measures to be taken during the planning, design and construction of all new building and infrastructure developments to ensure that they do possess proper sewerage discharging mechanism. The sanitary and sewerage system that

are to be provided to serve new developments are designed and constructed properly to maintain the effectiveness of the entire sewerage system.

- Marina should ensure that solid waste from boat operation, maintenance, and repair is properly disposed of. Boat repair and maintenance should not be allowed outside of designated area. These areas should be cleaned regularly.
- Proper waste disposal facilities at marina should be established to dispose solid waste, biocides, other toxic chemicals, petroleum hydrocarbons, organic matter and nutrients properly without containing the water system.
- Detergents and cleaning compounds use in boat cleaning at marina should be phosphate-free and biodegradable.
- Storage facilities at marina should have adequate containment features, such as curbs, berms, walls or dikes, should be established for liquid material. Separate containers for the disposal of waste oil, gasoline, diesel, kerosene and mineral spirits.
- Fueling equipment should be equipped with automatic shut-off nozzles to reduce spilling during fueling operation at marina.”

These measures are presented in enough detail that they can be successfully followed.

For marine water quality impacts, however, the mitigation measures are considerably less detailed (Ch. 5, p. 39):

“(b) Water quality

Site runoff during construction stage might affect the salinity, turbidity and sedimentation of the adjacent seawater. Poor water quality impacts on benthos and other sessile or mobile organisms would be short-termed and localized, and would be self-correcting after rectifying the ill. Mobile organisms affected could return to the area while the nearby benthos and sessile organisms could disperse their offspring through water currents and recolonize the area after water quality gets improved. The following mitigation and compensation measures are recommended.

- Erection of silt curtains around the point of impact;
- Timing restrictions/phase of construction;

- Designate specific enclosed area for maintenance activities;
- Introduce conservation measures like rainwater harvesting, use of tap with sensors;
- Restricted corridors of working;
- Proper management of waste water;
- Flood control, clogging of waterways and pollution of beaches;
- Construction of revetments and seawalls;
- Design storm water management plan;
- Optimizing construction methods to minimize the overall construction period.”

These briefly listed measures are unlikely to be effective in reducing impacts for at least two reasons. First, unlike the freshwater recommendations, there is insufficient detail included for practitioners to be able to take the necessary steps to carry out the measures. Simply stating “timing restrictions/phase of construction” and “restricted corridors of working” does not provide instructions for anyone hoping to prevent impacts. Second, in some cases the reasoning is not biologically sound. Sessile organisms like corals and sponges that are harmed by construction activities are unlikely to reproduce, and more unlikely still to time that spawning and dispersal to precisely coincide with the moment when their offspring might be able to drift back into the area to find conditions improved. (“Mobile organisms affected could return to the area while the nearby benthos and sessile organisms could disperse their offspring through water currents and recolonize the area after water quality gets improved.”) This kind of reasoning shows either ignorance or disregard for the biological considerations of these systems. The authors have not adequately addressed the potential impacts on nearshore habitats, which is all the more concerning because the area is known to be a lobster reserve (Ch. 5, p. 36).

Reefs

The heavy reliance on reef balls to replace the habitats that will be lost as a result of this massive dredge/fill/build project is concerning. There is not a lot of evidence in the literature that artificial reefs are successful, let alone a successful substitute for a functioning nearshore reef, which is what will be destroyed in this project (see especially Ch. 5, p. 36).

This section (Ch. 5, pp. 37-39) is written in two unusual tenses: the present and the conditional. As a result, it seems evident that no pilot tests were conducted to determine whether and how artificial reefs (nor what kind of design) would perform in this area. The entire section about the usefulness of artificial reefs is pure speculation, which seems irresponsible when the proponents know the high productivity and value of the existing reef. This sentence (Ch. 5, p. 36), sums it up:

“Since this area has been identified as a lobster reserve as well as well-known ornamental fishing and recreational site habitat development in rewarding loss environment is vital.

The use of artificial reefs to enhance marine ecosystem and their productivity and in so doing direct and indirect advancing of fisheries has potential (Ranatunga et al., 2014).”

A solution that “has potential” is clearly not a sufficient mitigation measure.

CLIMATE IMPACT ASSESSMENT

The EIA document has no mention to the sea level rise due to climate change. The recent ADB report suggested that over 6-degree centigrade temperature rise is unavoidable by the end of this century due to climate change. This will result significant sea level rise, strong waves and coastal erosion. Almost one meter sea level rise is evident in some parts of the world. Therefore, all new EIA reports around the world cover a significant assessment of climate change. They also have climate proofing in order to mitigate negative impacts However, this report has no such study. We strongly recommend that this should be part of the EIA and these impacts should be strongly considered during the approval of this development proposed by this EIA.

We hope that you will consider these comments when granting the approvals for the constructions proposed under this EIA.

Sincerely yours,

Signed

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