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சுற்றாடல் நீதிக்கான கேந்திர நிலையம்  
Centre for Environmental Justice



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1<sup>st</sup> January 2020

Director General  
Department of Coast Conservation and coastal resource  
management  
4th Floor, Ministry of Fisheries Building,  
New Secretariat, Maligawatta, Colombo 10

Dear Sir,

**Subject: Comments on EIA of The EIA Study for LNG / Gas Infrastructure  
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).

LNG is new to Sri Lanka. Therefore it is worth to consider international level perspectives on pros and cons of LNG development. Mr. Ted Nace, the executive director of the Global Energy monitor, US-based research and advocacy group in an interview with the guardian newspaper said that

“it was difficult to compare emissions from coal and gas given their different nature. Gas has lower CO<sub>2</sub> emissions than black coal when burned for electricity, but LNG developments also leak methane, which is a relatively short-lived gas that lasts in the atmosphere about 12 years but still has a warming power about 28 times greater than the same amount of CO<sub>2</sub> when calculated over a century.”

Natural gas is at times described as a transition fuel in the response to the climate crisis as it has about half the carbon dioxide emissions of black coal when burned to generate electricity. That argument has been rejected by the head of the International Energy Agency and science bodies warning the world needs to rapidly move to clean energy and industries.

GHG emissions from the LNG segments are likely to consist primarily of CO<sub>2</sub> CH<sub>4</sub> and N<sub>2</sub>O. The other listed GHGs would potentially be contributing a very minor amount. However in the cost benefit analysis of the EIA section 8.4 this has been stated completely different manner LNG has been identified as a clean energy source and solution to climate change/global warming which is not true.

## 8.4 ENVIRONMENTAL AND SOCIAL BENEFITS

As for environmental and social benefit of the project, the Project would contribute in improving air quality in Colombo through the provision of a cleaner energy source, namely LNG. This would result in following benefits:

- Improved Air Quality leading to improved public health, especially Particular Matter, SO<sub>x</sub> and NO<sub>x</sub>.
- Reduced GHG emission, contributing to resolve the climate change issue

### Figure 1 Section 8.4

Extended cost benefit analysis given in the report is incomplete. Net Present value, IRR and Cost benefit ratios have not been calculated. These values provide the economic aspects of the project. Therefore we have to assume that the project implementing agency has planned the project with general assumption that LNG is cheaper than crude oil/diesel.

The coast stretch from Colombo to Negombo has been recently undergoing rapid sea erosion which we believe as a consequence of Port city reclamation work. Proposed dredging work depending on the scale could further erode the sea and this impact has not been identified nor assessed in the EIA report. Erosion rates given in the report were from year 2000 which is now almost 20 years old.

As mentioned in the EIA report, there are 246 active fishermen in Modara Division and 126 in Mattakuliya Division along with 2 registered Fisherman's Societies in each of these divisions. Those who go fishing in the near shore area (3-4 km) could be affected as the fish population can be affected due to dredging activities/other construction activities and they should be compensated for a reasonable time period.

Air quality data given in the report were problematic. Colombo has many construction work ongoing including Port city construction, other housing flat/building construction. There was a heavy drop in Colombo air quality last November although it was predicted as a pollution cloud moved from India. According to the gazette notification No.1562/22 of 15 August 2008, the maximum air pollutants permissible are as followings. Sulphur dioxide- 24 hours - 80 ug<sub>m</sub>-3 ,Nitrogen Dioxide (NO<sub>2</sub> )- 100 ug<sub>m</sub>-3 ,Particulate Matter (Aerodynamic diameter is less than 10 μm in size (PM 10 ) -100 ug<sub>m</sub>-3 Particulate Matter (Aerodynamic diameter is less than 2.5 μm in size (PM 2.5 ) - 50 ug<sub>m</sub>-3

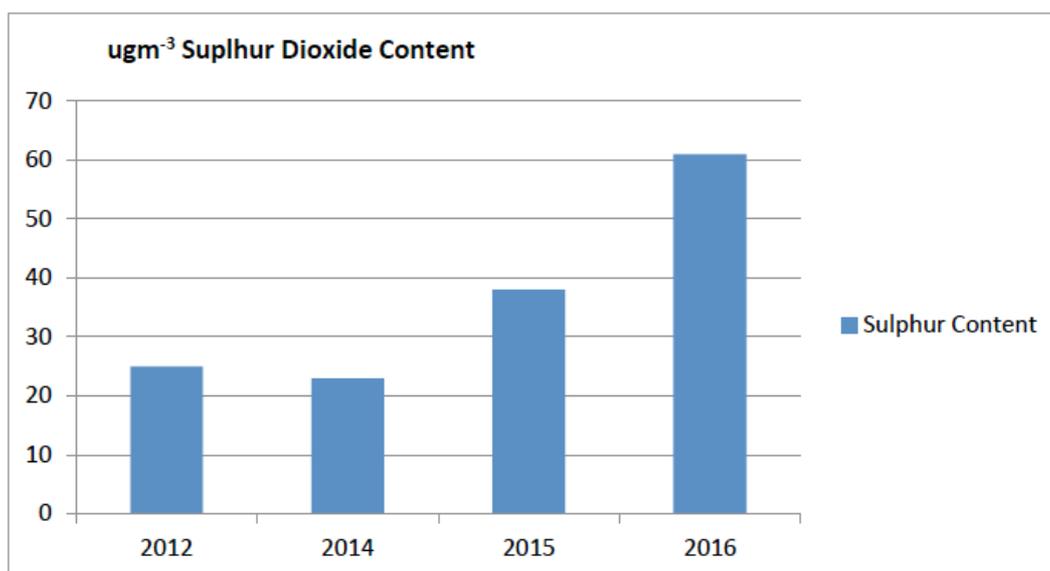
**Table 3.16 Summary of Ambient Air Quality Results**

Parameter		Units	Location (and measurement)								*Maximum Permissible level
			Location 1		Location 2		Location 3		Location 4		
			M1	M2	M1	M2	M1	M2	M1	M2	
PM <sub>10</sub>	24 hr.	µg/m <sup>3</sup>	42	56	46	78	52	95	60	26	100
	1 hr.	µg/m <sup>3</sup>	76	121	94	130	79	174	105	103	Not Available
PM <sub>2.5</sub>	24 hr.	µg/m <sup>3</sup>	19	11	24	28	19	26	36	21	50
	1 hr.	µg/m <sup>3</sup>	39	29	55	46	32	53	82	94	Not Available
SO <sub>2</sub>	24 hr.	ppm	0.013	0.02	0.010	0.011	0.014	0.011	0.017	0.011	0.03
	1 hr.	ppm	0.047	0.037	0.013	0.015	0.019	0.019	0.026	0.022	0.08
NO <sub>2</sub>	24 hr.	ppm	0.005	0.009	0.008	0.009	0.013	0.008	0.01	0.006	0.05
	1 hr.	ppm	0.01	0.011	0.013	0.015	0.02	0.015	0.017	0.01	0.13
CO	24 hr.	ppm	0.435	0.599	1.347	1.344	0.731	1.234	0.99	0.837	Not Available
	1 hr.	ppm	0.677	0.844	2.063	1.966	1.143	2.145	1.251	1.267	26
O <sub>3</sub>	24 hr.	ppm	0.006	0.008	0.002	0.004	0.006	0.006	0.003	0.01	Not Available
	1 hr.	ppm	0.017	0.013	0.007	0.009	0.009	0.013	0.008	0.015	0.1
CH <sub>4</sub>	24 hr.	ppm	2.081	1.876	2.087	2.012	2.358	2.208	2.258	2.151	Not Available
	1 hr.	ppm	2.593	2.100	2.485	2.58	3.771	3.287	2.865	4.103	Not Available
NMHC	24 hr.	ppm	0.293	0.066	0.441	0.254	0.315	0.301	0.32	0.142	Not Available
	1 hr.	ppm	0.786	0.159	0.659	0.899	0.895	0.833	0.745	0.829	Not Available

Source: Primary Monitoring, ITI, Colombo, October, 2018. \*Maximum permissible level stipulated by The National Environmental (Ambient Air Quality) Regulations, 2008

**Figure 2 Air quality data provided in the EIA report**

However, as mentioned in the Auditor general’s report published on 2017 on evaluation of efficiency, effectiveness and environmental impact of the vehicle-emission Programme, according to the air quality test carried out by the National Building Research Organization in 19 selected areas within the Western Province during the period 2012 to 2016, the average sulphur dioxide content existed in the atmosphere taken in December 15 has gradually increased and closer to the maximum allowed limit by CEA.



**Figure 3 SO<sub>2</sub> levels detected by NBRO**

The figures given in the EIA report seems to be too low. In any case, impact on air quality must be taken into consideration seriously when implementing this project. However, Compared to coal power, this project has salient features such as avoiding mercury pollution which was experienced in Norochhole.

Towards the end of the breakwater, a highly diverse community of corals and associated biota found along the rocky boulders. Proposed dredging activities would affect the coral. Therefore mitigation measures such as installing sediment nets should be considered in the Environment Management plan.

Also the pipeline towards Kerawalapitiya is 1 km away from Muthurajawela wetland which is highly affected recently due to anthropogenic activities including encroachment, large scale garbage dumping. Therefore, extra caution must be followed not to use the wetland areas in pipe laying associated activities such as temporary road constructions, material storage site development etc

In addition, we request the developer to address the above mentioned issues and to adhere with all the mitigation measures proposed in the EIA report, and the Coast Conservation Department to closely monitor the project activities. Funding should be allocated for the environment monitoring.

Thank you

Your Sincerely

Centre for Environmental Justice

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