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சுற்றுடல் நீதிக்கான கேந்திர நிலையம்
Centre for Environmental Justice



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10th September 2017

Director General,
Central Environmental Authority
04 Denzil Kobbekaduwa Mawatha, Sri Jayawardenepura

Dear sir,

COMMENTS ON THE PROPOSED METRO COLOMBO SOLID WASTE MANAGEMENT PROJECT

Centre for Environmental Justice is a public interest environmental organization based in Sri Lanka. CEJ promotes environmental Justice and environmental good governance. CEJ continue to comment the Environmental Impact Assessments and engage in EIA trainings in Sri Lanka.

We herewith send our comments on the EIA for the proposed Metro Colombo Solid Waste Management project dated August 2017. The project will involve transporting 1200 tons/day of unsorted solid waste and dumping in Arruwakkalu old limestone mine.

- Although the project is planning to deal with 1200 MT daily, the quantity of waste generated in the Western Province is over 3,200 tons per day. This means the project itself is not adequate for resolving the garbage issue in Colombo. However, the WtE project for incineration garbage is not an acceptable option since it is a high polluting technology and waste of resources.
- In principle Arruwakkalu project will be just dumping of garbage rather than using this garbage as a resource. As a lower middle-income country, it is high time introduce zero waste policy to Sri Lanka. It would be good if this project encourages this initiative. Since the life time of this project is only 10 years, the same problem with a

higher magnitude will appear in Sri Lanka, it is advisable to reduce garbage in other means and promote recycling.

- This project does not promote segregation of waste at the source. Although the section 1.6.5 state that this project does not interfere the national strategy, lack of segregation is a weaker approach. In fact, CEJ filed the legal case SCFR152/2017 seeking a more comprehensive scientific national waste management policy for the country.
- In our letter addressed to Hon Minister after the site visit arranged by the Ministry of Megapolis, we have stressed the need of a package of waste management actions- We stressed that the sanitary fill should not be seen as the only action to resolve waste management problem in Sri Lanka and only to be considered as part of the waste management actions under this process. We proposed that
 - ✓ Proper implementation of the polythene ban agreed by the cabinet of Ministers,
 - ✓ Enacting and active promotion of the Extended Producer Responsibility(EPR),
 - ✓ Producing a scientific waste management policy towards zero waste and implementation
 - ✓ Promoting segregation of the recyclable material at the source
 - ✓ Separate handling of hazardous waste and implement the Hazardous waste regulations.
- We also proposed to tender only the segregated waste as non-recyclable material and recyclable material separately by the local authorities instead tendering mixed garbage. This will improve the waste segregation at the source.
- *Section 1.6.5 of the EIA state, the proposed project does not interfere the national strategy, policies and legal framework as applicable to solid waste management. The government strategy and policies encourage a 3R approach. In fact, waste reduction and segregation (particularly at the source level) through the local authorities envisaged by the government as the promoter of the project to extend the life of the landfill. These objectives can be achieved through other parallel programs. The proposed project is not the only solid waste management option considered by the government at present with regard to waste disposal and but as an essential component of the integrated solution to SWM. In that sense, while it can be a solution to the disposal of solid waste, it can also accommodate products (or waste) of waste*

to energy plants, composting plants, etc. [page 11]

- *The EIA also state, the proposed sanitary landfill will receive only municipal solid waste. It will not accept any other type of waste. Therefore, the proposed project plan is in line with the government policies and practice regarding hazardous waste. [page 11]*
- *Section 1.5 Compatibility with other projects/ programmes / plans / developments in the area state that Recently the Cabinet of Ministers approved a list of long-term projects and plans to address/manage the solid waste issue. One group of such projects is Waste to Energy (W2E) i.e. to generate electricity from municipal solid wastes. The W2E projects, if come into operation will leave ash (bottom ash and fly ash) for disposal. Ash generated from the three currently proposed W2E projects will be nearly 450 tons per day. Disposal of ash will require a sanitary landfill until such time ash will be used productively. Therefore, the proposed project is compatible and a necessity for those projects in the pipeline. [page 6]*
- *The hazardous waste regulation was amended in 2008 accommodating a list of waste to be considered as hazardous waste. This is called scheduled waste. According to the National Environmental (Protection) Regulations, No: 1 of 2008, no person shall generate, collect, transport, store, recover, recycle or dispose waste or establish any site or facility for the disposal of any waste specified in the Schedule VIII (herein after referred to as “scheduled waste”) except under the authority of a license issued by the Authority and in accordance with such standards and other criteria as may be specified by the Authority.*
- *With regard to the above points we state that to our understanding existing dumping sites receive garbage not only from municipal solid waste but even industries. The ash then will be contaminated with toxic material. It is important to avoid schedule waste directly or indirectly coming into this landfill.*
- *We also state that only very small quantity of scheduled waste at the moment manage by the cement factory and no other mechanism. Therefore, the contamination of solid waste will continue to happen unless a parallel mechanism initiates.*
- *The EIA report state, the proposed site is a wetland having several waterways linked to each other forming a network. Mudun Ela is located in the site area and it is an important drainage canal. To avoid the loss of the water retention capacity of this wetland and interference with drainage of the waters, all the buildings and other infrastructure such as access roads, parking areas at KTS will be built on a platform(s)*

built on pile foundations. Design will be carried out so that the platform area will be limited only as essential to allow penetration of sun light to wider as possible area of the wetland. [page 18]

- As we also know the proposed Kelaniya transfer station is a water logging area and get floods during the rainy season. It was also noted that the proposed transit facility is located close to communities and proper precautions should be taken to avoid negative social impacts to the frontline communities.
- The EIA state *there will be some overseeing of delivered waste to avoid unacceptable waste being delivered. All arriving waste will be dumped on the dumping flow before being pushed into compactors. Supervisors will visually inspect the waste on the floor of the dumping pad and, if detected will remove waste types given below with the assistance of tractor shovel operators and controllers. [page 38]*
- We think this is not practical. You may not able to handle 1200MT in this way. We believe either KTS should install a mechanical segregation facility or only accept selected waste.
- The estimated design quantity of leachate is $600 \text{ m}^3/\text{day}$. We state that the proposed site is a sensitive location with a highly porous limestone layer with the availability of the largest freshwater aquifer in Sri Lanka namely Thabbowa aquifer and next to the ocean. Therefore, it is important to take all the precautions to make sure that the leachate does not leak to the ground water aquifer and does not contain hazardous chemicals at all.
- Impacts due to Leachate during transportation seems a significant issue. The EIA state, the transportation of waste is done in closed containers. However, in the case of leakage of gases or leachates from the container (accidentally or due to lack of maintenance) have a possibility to spread pathogenic organism along the railway line.
- *The EIA also state in general, the municipal waste emits strong smells due to the anaerobic degradation of organic materials. However, the transportation of the compacted waste will be carried out in closed containers by rail. There is a possibility for leaking gases to escape from closed containers through door gaps. This may cause a nuisance to the residents along the railway line and to people that use the railway stations. Therefore, this impact needs to be mitigated.*
- *Its proposed that the leakage can happen from the doors that are fixed to the container and it is necessary to spell out the ways to prevent the spillage the doors as the seal*

that prevents leakage may frequently wear out and need to be replaced such leaking containers immediately upon inspection on regular basis. The possibility of introducing a reserve leachate tank to the containers to ensure that any leakage will not remain in the main compartment of the containers could also be looked into. This will mitigate the order problem.

- It is not clear whether the odour is a problem when return the containers. Would there be washing facility before they return. The EIA state that the railway department has no previous experience in transportation of solid waste. The proposed operation will involve maintenance that include daily washing and cleaning of the specially build containers which are to be leak proof and mounted on railway wagons. [page 194]
- We have noted that there are no safety arrangements if there is any train accident or derailling during garbage transport. This should be studies under the risk assessments.
- Further, 170 km long transport may need a transfer point/service center along the railway line to deal with problematic containers. As proposed train station loops may not be suitable for this purpose.
- *The EIA state Project development consultants have not included energy recovery presently. In this case, simple incineration is proposed for disposing the landfill gas. However, the project development consultants stated that energy recovery to be considered in the future after analyzing the landfill gas character and collection efficiency. They have also stated that if the energy recovery is viable then switching to energy recovery instead of simple incineration. It seems that lack of inclination towards energy recovery is mainly due to lower potential and shorter period of methane generation predicted by the model application by the Project Development Consultant. [page 65-66]*
- This means this project is not a climate friendly project. It is advisable to include methane recovery system to make it climate friendly. We are against the incineration of this gas.
- *The EIA state Human elephant conflict *Elephas maximus* (Asian Elephant) were observed as small resident groups (4 to 10 individuals). But some migrate seasonally from the Wilpattu National Park area crossing the Thabbowa Sanctuary and are hence observed as large herds (Kumarasinghe et.al. 2013). Elephants move freely within the Holcim areas and adjacent forests, especially in search of water. During droughts water is mostly scanty and only available in a few ponds that were artificially created excavation of limestone quarries. Human-elephant conflicts were not reported in the*

quarrying area and the peripheral forests as far as Kala Oya River near Gangewadiya. A few years ago, an elephant fence was noted in the Gangewadiya preventing the entry of elephants from Wilpattu National Park. However, at present, this fence is not operational. [page 143]

- However, this may happen due to the garbage smell and it is advisable to include an electric fence around the dumping area.
- According to the estimates we have got from the Railway Department cost of moving one container for one kilometer is Rs. 925. Therefore, the total cost for transportation will be SLR. 925 x 170 km x 26 wagons = 4 million SLR/day and SLR 1,492 million a year.
- This amount equal to USD 27,256/day and 9.9million USD/year. This is much higher than the USD 1.3 million given in the EIA report [page 83]. This is very high cost and it is not clear which agency will bare this cost during the operation.
- *The EIA state investigation of the Institutional arrangement for solid waste management revealed that there is no clear institutional arrangement or provisions currently to undertake the proposed operation. This will be a major impediment and should be addressed forthwith since the operation involves two different provinces and activities are taking place beyond jurisdictions of any one local authority.*
- *EIA also state there are several institutional challenges that will be posed by the solid waste management project, proposed by the Ministry of Megapolis and Western Development that should be addressed as part of the project and cost of them should become part of the Operation and Maintenance cost of the project. [page 194]*
- This matter is serious and should resolve before approve the project. We wonder whether the Ministry of Megapolis is planning to give this project to the private operators.

In conclusion, the proposed Metro Colombo Solid Waste Management project has several concerns including some social and environmental issues. Its governance seems a bigger issue to be resolved.

We strongly believe that this project should be part of a package for resolving the solid waste problem in Sri Lanka. Sri Lanka produce over 10,000 MT of solid waste daily around the country, however only around 3000 MT is going to the dumping site whatever. Rest dump in the backyards, to the wetlands and even rivers. We have over 300 dump sites. Therefore,

national solid waste issue is much larger although the waste in the urban centers such as Colombo, Kandy are much highlighted. We therefore think that implementation of a more scientific waste management policy is a very much needed, while this project may tackle only part of the issue.

Thanks for this opportunity to provide comments on the EIA and share our views in this decision making. We would request you to hold an oral public hearing in order for us to explain some of our concerns written here.

Sincerely Yours,



Hemantha Withanage
Executive Director,
Centre for Environmental Justice