

“ZOOMLION GHANA LTD Composting of Municipal Solid Waste in Accra area”

Joint submission by

Mariel Vilella - Global Alliance for Incinerator Alternatives

Rosemary Olive Mbone Enie - Pan African Climate Education (PACE) Centre Ghana

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Introduction

The only way to achieve clean compost is to use clean, uncontaminated organic matter (food and plant debris). This is achieved by ensuring segregation at source and a system of waste collection that prohibits collection of mixed waste hence eliminating the need for such centralised mixed waste composting facilities.

So, when compost is made out of mixed waste, as it is proposed in the “ZOOMLION GHANA LTD Composting of Municipal Solid Waste in Accra area”, it may contain important heavy metals contamination that will contaminate the soil and will not represent any environmental benefit to the area.

At the moment, the Waste Management System in Accra is very poor because the waste is not sorted at source. For the past 10 years the waste management program of Accra City has been very poor and the hygiene and sanitation have worsened severely. There is a real need to sort out waste at households, and the acceptance of the project “ZOOMLION GHANA LTD Composting of Municipal Solid Waste in Accra area” will only jeopardize any future recycling or proper household composting project, which in its turn will prevent the local economy from developing a green jobs approach.

Environmental impacts

As the PDD explains, waste is going to be collected and separated in a facility as it is typically done in mixed waste composting: un-segregated municipal waste is collected and transported to a centralised location for processing. Once inside the facility, a highly mechanized system begins segregating waste according to density. But since source segregation is not ingrained in the system, keeping out toxic/non-biodegradable/inert materials prevalent in the modern waste stream is a huge challenge.

As an example of how toxic mixed waste composting may be, it is worth mentioning that GAIA commissioned the analysis of two compost samples derived from mixed waste processing facilities at Pune and Nasik in Maharashtra. The samples were tested for the presence of 7 heavy metal; Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc.

Both samples tested positive for six out of seven heavy metals. Cadmium was below the detectable limits in both samples. Other elements were either found in traces or in levels higher than German standards.¹ These elements can be present due to the occurrence of products and packaging containing such elements, which is typical of a mixed waste stream.

Other studies have compared compost from mixed waste and from separated organic discards, and strongly linked heavy metal contamination to using mixed waste. Mixed municipal waste

¹ German Ordinance on Biowastes (BioAbfv 1998, Type 2). Germany is known to have the most stringent global standards hence they were chosen to give a comprehensive overview.

contains a wide variety of products and packaging that are contaminants in the composting process.

Health/Environment Impacts of Heavy Metals

The presence of heavy metals in mixed waste compost is a matter of serious concern as it contaminates local environments like water bodies and soil. It also adversely impacts the health of local communities since workers and farmers who come directly in contact with the compost run the risk of exposure. Families of farm/garden workers are also at risk when the heavy metals are inadvertently brought home as dust on their clothes. Local communities living around farms using contaminated compost are exposed through breathable dust carried through winds.

Application of contaminated composts to agricultural fields or gardening can be hazardous for the soil and the produce. Elements like mercury are known to be extremely dangerous even in trace amounts and can render any environment toxic by its mere presence.

Socio-economical impacts

The PDD states that the project will create jobs during the construction and operation of the project but it does not clarify how many of these jobs will be established for the long-term, thus it cannot be determined the final impact on the job creation.

Moreover, producing organic compost from waste separated at source opens up a much better opportunity for job creation, since it will require a larger number of workers committed to collect waste and operate the compost facility.

Finally, since the compost will be of very poor-quality and detrimental to farms, it is a highly risky financial venture. Experiences in Europe with mixed-waste composting have shown that this kind of compost cannot be sold as promised and thus it ends up creating extra costs as a result of the business failure.

Conclusion and Demands

For the reasons mentioned above, it is the opinion of GAIA and the Pan African Climate Education (PACE) Centre Ghana that this project should be rejected from the CDM and that the concerned institutions will need to consider the following:

- Any resulting compost from this kind of projects should carry warnings stating that it is not suitable for food crops.
- Government should prohibit the sale of non-food grade compost.
- There should be a priority put on the development of clean composting facilities.

Thank you for reading this comment. We will be looking forward to hearing your considerations to our concerns.