



TRANSFORMING WASTE MANAGEMENT IN JAMAICA

Background

In mid-February 2012, the Riverton City Dump caught fire and burned for approximately two weeks. The effects of the fire were felt in many parts of Kingston and surrounding communities and there were school and business closures. Many citizens were affected by respiratory ailments. There was then considerable media attention on the Riverton Dump and the long standing and egregious site conditions were publicized – the substandard working conditions affecting thousands of people, including children, the lack of proper landfill management measures, the impacts to air, soil, water and human health, and the presence of disease vectors, along with the rearing of animals for slaughter and human consumption on the dump. Initial attention was focused on extinguishing and controlling the fire, but it is of paramount importance that after this particular fire is out, the persistent and systemic problems affecting waste management in Jamaica be addressed. With this in mind, six groups and five individuals, all members of the Jamaica Civil Society Coalition (JCSC), wrote an open letter to the Ministers of Health, Environment and Local Government asking for an urgent meeting with all three Ministries to discuss both the issue of management at Riverton, as well as the broader issues of improved waste handling for Jamaica. The three Ministers concerned wrote back jointly, dated March 6th, 2012, advising that they were awaiting information from their technical staff, which would be available by March 16th, 2012, and shortly thereafter, a meeting with the interested groups would be convened. The JCSC presents this position paper on the issues, prepared by one of its members, the Jamaica Environment Trust (JET) .

The current situation

Simply put, there is a public health and environmental crisis in Jamaica. Over recent weeks, many elements of this crisis have been reported in the media – the Riverton fire, the public health implications of raising animals on an unmanaged dump, rat infestations in various parts of the city, the under staffing and under resourcing of key regulatory agencies and other long standing problems, such as inadequate sewage treatment, illegal dumping and rampant open burning. Waste management has never been given adequate or sustained attention by the Jamaican government, regardless of which political party has formed the administration. New legislation was passed in 2001, creating the National Solid Waste Management Authority (NSWMA) but all the required regulations have not been completed. Various management plans have been done over the years, but these have never been properly implemented.

Considerable resources have also been expended on waste management and improvements at Riverton without sustained success. The handling of gaseous, solid and liquid waste is both a public health and environmental issue, affecting the health and well being of most of our population, and involving three different ministries and their associated agencies.

A few facts about waste in Jamaica

- Jamaica produces about 1.3 million tonnes of waste annually, the majority of which is domestic (Figure 1). Riverton receives some 60% of all the waste produced in Jamaica, 250 truckloads per day, or 1,300 tonnes daily. The estimated true annual cost for domestic curbside collection in 2006 was US\$102.5 million.
- Increase in solid waste is estimated at 6% annually; one study suggests an increase of 50% over the past five years alone; 150% over the past decade. In addition, the composition of waste has changed to become less biodegradable and more hazardous. Still, a 2006 study estimated 69% of Jamaica's waste stream is organic and could therefore be removed from the waste stream by household composting (Figure 2).

Figure 1. Composition of Waste in Jamaica 2006 by type

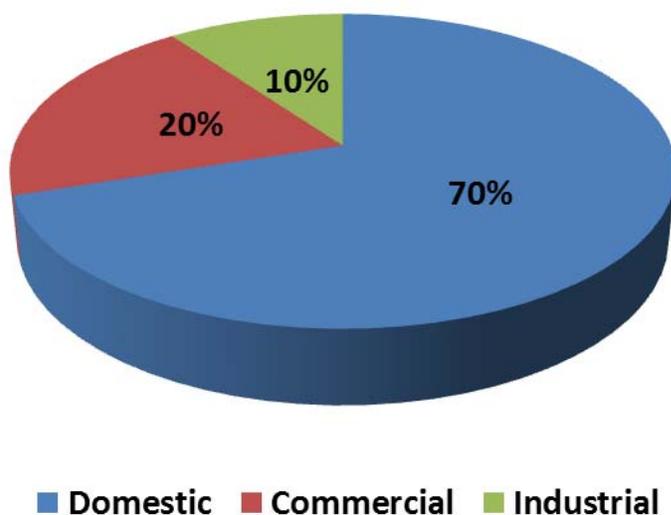
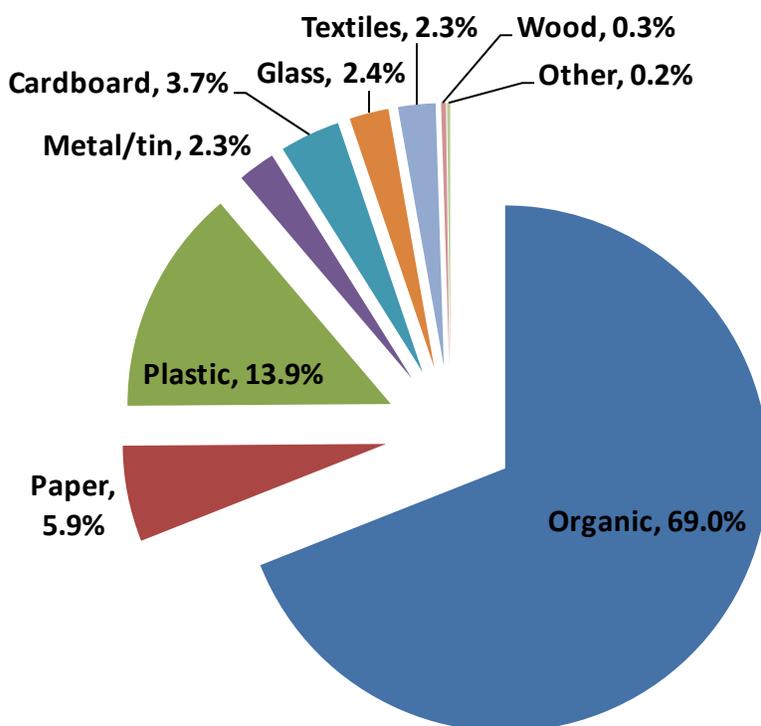


Figure 2 Composition of Waste in Jamaica 2006 by category



- Jamaica has eight dumpsites managed by NSWMA; none are sanitary landfills. All of them are inadequately managed, some threaten water supplies, many have animals being raised on them, none have leachate control or methane recapture. (A sanitary landfill is lined to prevent impacts to underground water, there is collection of gaseous emissions and liquid effluent and the landfill is compacted and covered daily, to control disease vectors and prevent fires)
- All dumps burn in Jamaica – variously due to carelessness, poor management and/or spontaneous combustion due to lack of methane capture. Burning dumps present significant threats to air quality and respiratory health.
- A wide range of air pollutants result when dumps burns – particulates, carbon monoxide, aldehydes (eg formaldehyde), acrolein, benzo (a) pyrene, hydrogen bromide, hydrogen chloride, hydrogen cyanide, hydrogen fluoride, nitrogen oxides, phenol, sulfur dioxides, dioxins and furans.
- The health impacts of air pollution from dump fires are increased risk of death among the general population, including the elderly, children, and those with preexisting respiratory and cardiac illnesses, infant mortality, low birth weight of babies, onset of childhood asthma, coughs, wheezing, chest tightness, shortness of breath, burning in eyes nose and throat,

dizziness, weakness, confusion, nausea, disorientation, exposure to known carcinogens. The seriousness of these depends on how close people were to the fire and how long the fire persisted.

- Less than 50% of Jamaican households receive garbage collection services. Where collection schedules exist, they are hardly ever adhered to. Poor collection exacerbates illegal disposal of waste into gullies, rivers, open lots and the sea, as well as illegal open burning – some 38% of the population burn their garbage, 75% of those who burn live in rural areas. An estimated 300,000 tonnes of waste is dumped illegally every year.
- Recycling programmes do exist, mostly for two kinds of plastic (PET and HDPE), but fall far short of the scope required.
- There is a vibrant but unregulated scrap metal trade, which has resulted in the widespread theft of key items of infrastructure and the suspension of the trade in 2011.
- Considerable amounts of waste are discharged into Jamaica's coastal waters after rain via gullies and drains.
- Sewage – the National Water Commission is the single largest operator of sewage treatment plants in Jamaica. A large number of their plants do not meet NEPA standards. The new Soapberry plant near Ferry has improved the situation in Kingston, but 70% of Kingston remains unconnected to sewage mains.
- Sludge management and disposal in Jamaica is currently unregulated.
- Cesspool emptiers are having a problem finding a plant to take their waste – few sewage facilities now accept cesspool waste, because such waste is unfiltered and may contain a range of substances the plants cannot treat – thus affecting the plants' ability to comply with standards. There are anecdotal reports of illegal dumping of cesspool waste in canefields.
- There are no properly designed hazardous, electronic or radioactive waste facilities in Jamaica; nor are there any facilities to handle ship generated waste.
- There is one modern medical waste facility within the Southeast Regional Health Authority (in proximity to the Kingston Public and Victoria Jubilee Hospitals) – otherwise, there are no modern treatment facilities for medical waste.
- A number of critical policy documents remain in draft or are in need of updating (National Solid Waste Management Policy, Hazardous Waste Policy, Medical Waste Management Policy, Sanitation Policy, National Energy Policy, Policy to Prohibit Open Burning, Waste to Energy Policy)

- Critical regulations under the National Solid Waste Management Act also remain unfinalized – specifically the Licensing and Registration Regulations and the Tipping Fees and Opening Hours Regulations.

The Urgent Priorities

Immediately

- The three portfolio Ministers (Health, Environment and Local Government) must make the case to Cabinet that waste management and public health are **urgent priorities** requiring expertise, action, accountability, enforcement and sufficient resources.
- Commence an immediate search for **alternative sites** for new sanitary landfills and transfer stations.
- Expand and coordinate existing **air quality testing regimes**; regularly publish the results on the websites of the Ministry of Health and the National Environment and Planning Agency (NEPA) and publish in local newspapers.
- Begin work on the **economics**. How are the solutions to be funded, by whom, how will we ensure Jamaicans receive value for money spent on waste handling, that the solutions are appropriate and feasible, and what are the opportunities for employment?
- Review and update existing **socio-economic research on the men, women and children** who make their livelihoods on dumpsites (emphasis on Riverton), and establish structures to ensure their input into plans going forward.
- Establish a standing inter ministerial **planning and monitoring committee** for waste management, with strong civil society representation, in order to monitor progress.

Within three months

- Two **transfer stations** must be established – one in Kingston, the other in Montego Bay. (Transfer stations are smaller facilities which receive and sort waste, sending various types of waste to different destinations, including landfills).
- As soon as the transfer stations are set up, immediate action must be taken to **divert recyclables, tyres and scrap metal to the transfer stations**. This will reduce the economic incentive for citizens to be at the dumps and create managed employment at the transfer stations. Appropriately sited transfer stations reduce transport costs.
- Immediate efforts must begin to **minimize waste** being sent to the dumps by householders. A good community composting programme could reduce waste by half – reducing the need for (and therefore the costs of) transport and handling at the dump. Given the cost of operating curbside collection, waste reduction is the most important strategy and if properly implemented, could give fiscal space to carry out other measures.
- There is urgent need for a **review of management and operations at NSWMA**. The **reasons** for the myriad problems described in many reports should be identified, in order to ensure they do not recur. NSWMA should **confine its role to that of a regulator**, and not continue with the dual role of waste operator as well as regulator – these roles are in conflict.
- Discussions should be held with the **Inter American Development Bank** as to the amount and type of support it is prepared to extend to improve waste management in Jamaica, but no new

money should be borrowed until the NSWMA review is completed, the reasons for the previous failures fully understood and accepted and accountability procedures are in place to ensure there is no recurrence.

Within six months

- **Recycling efforts must be scaled up**, starting with plastics and cardboard. Pilot projects for curbside pickup should be tested in middle class communities. Deposit legislation for certain types of packaging should be considered and adopted, if feasible.
- **Campaigns against open burning, illegal dumping and littering** must be launched. These could all be carried out jointly with the portfolio ministries, the police, the media and civil society.
- Conditions at the **existing eight dumpsites** should be reviewed and a report either compiled or updated on their current status. Decisions should then be taken about lifespan, closure or expansion of each site.
- The very many **policy documents** and regulations that are in various stages of approval should be reviewed, revised and passed. **The regulations concerning tipping fees are particularly urgent.**
- A meeting should be held with the **cell phone providers and computer equipment** companies to identify suitable methods for handling electronic waste.
- With regard to **Riverton**, the site needs to be urgently secured and managed. The animals must be removed. They could be taken to a nearby site where only organic waste is sent – this would ideally require separation of organic material at source. A limited number of citizens who wish to work on the dump should be granted permission to do so, given IDs, protective gear and proper training.
- The possibilities for **Waste to Energy** should be reviewed and decisions taken as to appropriate types of technology. Given Jamaica's high organic content, our waste may not be suitable for many types of Waste to Energy facilities.
- Two more **transfer stations** should be opened.

Within one year

- New **funding** for waste management identified and in place, if feasible.
- **Two new landfill** sites identified and preparatory work begun to establish managed sanitary landfills at those landfills.
- One **transfer station per parish** operational.
- Operations at **Riverton** brought under control, life span identified and steps begun for closure.
- Collection established for **electronic equipment**.
- Begin research on **cradle to grave legislation** – that is, requiring the producers and sellers of goods to take back and pay for the disposal of packaging or old equipment at the end of its life.
- A second **medical waste facility** opened in the western end of the island.
- Conduct a **review of the sewage facilities** in Jamaica and set targets to bring them into compliance with standards. This has been done previously – the regulatory bodies must become serious about enforcement.

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Jamaica Civil Society Coalition

Sources

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