

## **Environmental and health impacts of solid waste disposal practices: A case study from Theliialla dumping site**

### **Extended Abstract**

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### **Background**

Solid waste is a growing problem not only Sri Lanka as well as in developed and developing the world today. In ancient civilization human necessities were simple within their day to day activities, they release them into the natural environment. Any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. What this basically means is that anything that we produce and does not reuse call as solid waste. Something can be become waste when it is no longer useful to the owner or it is used and fails to fulfill its purpose (Gourlay, 1992). Solid waste according to Malombe (1993), irregular services rendered to producers of refuse by municipal councils compels them to find ways of disposing of refuse. One person generate solid waste of the municipal councils around 0.65 – 0.85 in Sri Lanka (kg/day/person), (UNEP 2011).

According to this study the solid waste management strategy based on Theliialla open dumping site situated in Theliialla GS division in Warakapala secretariat division which is one of the open dumping sites of Sri Lanka. The pollutants are directly or indirectly discharged into water bodies without adequate treatment to remove harmful compounds.

### **Objectives**

To highlight the major solid waste management issues in the towns of in Sri Lanka, considering the above, this study is designed with the prime objectives of identifying the environmental problems of the Municipal Solid Waste dumping site and to recommend effective managerial measures to safeguard its environmental health in a

sustainable manner. To study of environment and human health impacts associated with solid waste disposal practices. On the other hand to study about solid waste and solid waste disposal, to identify the major impacts to environment and human health and to propose prevention and mitigation methods to the impacts and make the waste management plan

### **Methodology**

Primary data and secondary data were used for this study. The primary data was collected from the Theliialla GN division. Random sample method was used for selected households from Theliialla GN division and other primary data collected using the Interviews, Discussions, photography and Testing water quality. Secondary data was collected using the books, articles, e-resources, and previous research reports and institutional reports. Descriptive methods and statistical methods were used for data analysis

### **Results**

Research findings are clearly indicated that due to rapid growth population, solid waste generation rate, poor management, non-implementation of solid waste legislation and lack of funding are responsible for the solid waste management crises in the Theliialla waste dumping site. The solid waste management system is made negative environmental impacts like land air and water pollution, infectious diseases, blockage of Theliialla stream and loss of biodiversity in Thliialla reservation area. In addition to obviously, it degrades the aesthetic value of the environment, and along with it socio-economic issues. Thus adjusted, the main problems identified in order of priority are: unpleasant odor when garbage is transported, garbage on either side of the main road fallen from the garbage trucks, loss in property value, unpleasant odor due to landfill site, traffic congestion due to garbage trucks and tractors, falling of garbage bags from garbage trucks on either side of the main road.

### **Conclusion & Recommendation**

The solid waste problem is one of the problems in both urban and rural area in Warakapola DS division. On the other hand, before starting any solid waste management program there should be knowledge about the waste generation sources. Because it is very easy to waste minimization and management activity. The solid waste management

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program which has launched by the Warakapola Pradeshiya Sabah should be developed. The Solid waste recycling (Compost) project in Ambepussa Ketagodawatta lies in one ruder and 30 punches area of land. But it isn't practiced in a proper manner. The drinking water project should be established for the villagers who affected to pollution of the water bodies because of waste dumping to this place. While the Waste transportation it is essential of covering the tractors for avoiding the garbage bags falling down the roadsides and spreading odors.

**Keywords:** solid waste disposal, water pollution, solid waste management, environmental issues.

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