Impacts of improper solid waste disposal in sacred places: A case study of Ruwanweli Maha Seya on poson poya day

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Introduction

Solid waste has become a serious environmental issue in all over the world. It can be define as any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities (USEPA, 2015). The problem of solid waste is also influencing the sacred places of Sri Lanka.Furthermorethis issue affects to the Pagoda Ruwanwali Seya which is the most nonpareil venerated Buddhist sight in Anuradhapura, next to Sri Maha Bodhi.It was built by great king of Dhutugemunu who reigned from 137 Before Crist to 119 Before Crist from Anuradhapura. The stupa Ruwanweliseya height is 107 meters and diameter is 92m today, although in ancient era it has been about 55 meters of height (Fernando, 2007).

This stupa is great known Chaitya, Swarnamali Mahathupa, Swarnamali Mahaceti and Rathnamali Dagaba. Ruwanweli Maha Seya shines like a gem in North Central Province (Pitigala, 2016). Lord Buddha's many of relics detached in this pagoda by the king of Dhutugemunu. Many of local and foreign devotees come to visit this sacred place all over the year and this arrival is high in Poson and Wesak poya days. The contretemps of this arrival cause to increase the waste in everywhere and it create most critical problems in the area. Therefore this study proposes proper waste management disposal methods to the area to overcome the problem through the classification of waste materials and finding the highest amount of waste materials of Ruwanweli Maha Seya archeological site.

Methodology

This study was conducted 1.5km adjacent to the Ruwanweli Maha Seya archeological site. Data were collected

via both primary and secondary data collection methods. **Participatory** Observation. interviews and field survey has been used to collect primary data. Secondary data were collected from various sources such as research articles, related books and web sources. As a tool Excel was used to analysis data and graphs, charts and photographs used for represent the data.

Results and Discussion

According to this study, it was found kind many of waste materials distributing all over the area. They can be categorized mainly as decayed and non-decayed waste. Polythene bags, lunch sheets, plastic bottles, ice covers, rubber slippers and glass bottles were the non-decayed things were found from this study. Among these non-decayed waste materials polythene and plastic can be identified as the major factor for increasing the waste. Polythene and plastic were rate 80% among whole waste materials. As well as paper waste, food materials, flowers and clothes can be considered as the decayed waste materials. This study revealed that there were only few of concrete bins to dispose all these waste. These polythene, plastics, papers and all other wastages including food waste directly give negative impacts to the sacred area. This problem forced to destroy the historical value of aforementioned archeological site.In addition to

thatthis area consists with lot of ancient ruins. Many time these ruins covered with this improper disposal wastage. As well as one of the greatest threats to animal survival come from these waste disposal patterns. This was evident through its impact on both biotic and abiotic environment of the area. Usually in poson poya day there are many Dansals in this area and people used to put their waste everywhere. It also has caused for increase improper disposal waste on that day.

Conclusion and Recommendation

Ruwanweli Maha Seya awe-inspiring presence is something that cannot be describe in words. Unfortunately today improper human activities have caused to destruct the historical value, archeological importance, beauty and animal's survival and their habitats. One of the greatest threats comes from the polythene and plastic. If the current trends continue, it may have taken place serious implications for archeological value and biodiversity of this area.

It is recommended that Ruwanweli Maha Seya should be designated for colour segregation bins and can cover cement pits using iron nets which cannot be opened by the monkeys. Furthermore polythene should be prohibited which is carried into the sacred place. Composting system should be introduced for surrounding communities which will help to reduce

the wastage. As well as awareness programmes should be conducted for the devotees and surrounding people. Strict the existing rules, regulations and penalties should be implemented to reduce improper waste disposal and introduce new rules for full fill the legal gaps.

References

Pitigala, S. (2016) Garbage dumping in religious places. Available at: www.ceylontoday.lk (Accessed: 02 February 2017).

Fernando, K. (2007) RuwanweliMaha Seya. Available at: www.amazinglanka.com (Accessed: 02 February 2017).

United States Environmental Protection Agency (2015) Final Rule: 2015 Definition of Solid Waste (DSW). Available at: https://www.epa.gov/hwgenerator s (Accessed: 02 February 2017).