
Editorial

Modern and Traditional Ways of Waste Disposal

At a time when the World is embroiled in attempts to conceive or achieve the goal of what has been described as “Sustainable Development”, Sri Lanka witnessed one of her worst man-made (unnatural) calamities with the collapse of the Meethotamulla waste dump, on New Year’s eve in April 2017.

The United Nations Agenda for 2030 recognizes 17 Sustainable Development Goals (SDG’s) to realize the Global dream of sustainable development, whatever the context in which that philosophy may be understood by the different communities of the World. Significantly, SDG-12 of the UN Agenda refers to “Responsible Consumption and Production”, referring contextually to the fact that Countries can manage the sustainable extraction of their natural resources more effectively, and also dispose the toxic waste more efficiently. These are as one may say, just empty words with no meaningful and clear directions on how best this process could be scientifically and methodically achieved, without having to face mishaps of the magnitude of the Meethotamulla holocaust. Sri Lanka needs, and also expects more positive and meaningful guidance supported with scientific, technical and financial resources, rather than mere statements that are incongruent with cultural norms of the country, to be able to deal effectively and rapidly with this long neglected issue.

Nevertheless tradition has it that our visionary forefathers engaged in their simple and meaningful lifestyles, developed the means of responsible consumption and production of the natural resources and disposal of waste, in compliance with nature’s own turn-over cycle, where organic waste components were re-cycled by collecting and allowing these to decompose in small heaps or shallow pits to generate in situ organic manure. Although some components were in fact incinerated, usually under anaerobic conditions in pits to produce ash containing the inorganic fertilizer components such as potassium as well as micronutrients, which were also applied to supplement the organic fertilizer. Traditions in the coconut industry, where animal draught power was used, and in consequence animal waste was systematically recycled for economic production of coconut, is a lesson to be emulated.

A scientifically laid out field experiment at the Coconut Research Institute (CRI) in the early 1950’s was designed to compare the performance of the traditional mode of fertilizer application in coconut plantations using buffalo herds, with modern methods using chemical fertilizers. In the traditional method, a pair of buffalo heads was tethered to each coconut palm for 14 nights. It was the belief that the quantity of dung and urine produced by such a pair of buffalo heads, produced adequate quantities of nitrogen and phosphorus for the coconut palm for 2 years. However, it had also been the practice of the traditional farmer to spread a 4 gallon oil can full of kitchen ash round the base of each coconut palm as a supplementary fertilizer. Though the composition of kitchen ash could vary considerably, the common use of the coconut husk as a fuel in the traditional kitchen hearth ensured adequate potassium in the ash. Dried coconut husk can contain as much as 25 % of K_2O in ash (compared to the common chemical fertilizer Muriate of Potash with 50 % K_2O). Significantly this combination of dung and urine of the buffalo heads, together with an oil can full of kitchen ash, was found to contain virtually the correct proportion of NP and K required by a coconut palm for 2 years as recommended by CRI using chemical fertilizers. Thus here one observes how traditional wisdom had prevailed in a case of waste disposal.

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