

The problem of solid waste management in Sri Lanka

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In this comprehensive article on the rising problem of garbage disposal, Prof. Willie Mendis draws the attention of the authorities concerned to the urgency of working out a national plan for solid waste disposal and management.

The Setting for Solid Waste Management in Sri Lanka

Solid Waste is a product which is well known to the public. It is easily identifiable & distinguishable in all its forms. The causative effects of Solid Waste on problems related to health, sanitation, and environment are getting increasingly serious. Its volume in the urban areas have grown to such proportions that it has propelled its stature to that of an 'Industry' in its own right. The National Building Research Organisation (NBRO) estimated in the year 2000, that in selected urban areas of the Colombo Metropolitan Region, the quantity of Solid Waste generated amounted to 1806 metric tons per day (equivalent to 225 twenty foot Containers fully-laden with garments). Consequently, as per the 1998 Report of the Presidential Task Force on Housing and Urban Development, if the urban share of the country's population rises from the present 30% to 45% by 2015, and to 65% by 2030, the challenges of Solid Waste generated thereof will become a drag on the economy. Presently, a simplistic calculation of numbers associated with the 'Solid Waste Sector' indicates that it may have a value representation of about 1.5% of the GDP. This is almost equal to the share of the GDP arising



Schoolchildren engaged in proper garbage disposal demonstration to the public.

ing from losses valued in Road Accidents. More significantly, it is only marginally less than half the share of the GDP associated with the north - east conflict. In this macro - context, the 'Solid Waste Sector' has assumed prominence as nationally important, not only in terms of its management, but also with regard to its implications for the economy.

Solid Waste Management Graduates

In these circumstances, Solid Waste Management (SWM) has graduated from being an exclusive Municipal or Local Authority responsibility, to that of being entrusted to a specialized Agency for its oversight.

The jurisdiction of the latter has thus been correspondingly annexed in the populated Western Province to the Waste Management Authority with its own Board of Management appointed by the Western Provincial Council. In turn, it is indexed to act as per the 'National Policy on Solid Waste Management', and the 'National Strategy for Solid Waste Management', formulated in May 2000 by the Central Government's Ministry of the Environment. It is pertinent to note that the main components of the National Strategy were to ensure that:

- generation of Waste is avoided and reduced at each generation source as much as possible;

- Waste generated after the attempt of waste reduction is reused or recycled as much as possible;

- Only after the effort of waste reduction, re-use, or re-cycling, waste is properly collected, treated, and finally disposed of in an environmentally sound manner.

The aforesaid Public Management Structure for Solid Waste, has been complemented by a regulatory environment to strengthen capacity for the enforcement of policy. It represents an advancement from tradition, and of a widened scope, in contrast to what existed two decades ago. Its origins were inherent in the mandated duty of all three types of Local Authorities (MCs, UCs & PSs), to carry out:

- a) collecting and removing all street refuse;
- b) securing the due removal at proper periods of all house refuse; and
- c) the proper disposal of all street refuse, and house refuse.

The Local Authorities were also empowered to sell or dispose of all waste collected by it and to provide places convenient for the proper disposal of all street refuse and house refuse, without causing a nuisance.

Duties of Local Authorities

The duties of the Local Authorities in respect of Solid Waste were enhanced by it being coupled with the Development Plan for its areas prepared

under the Town & Country Planning Ordinance No. 13 of 1946 (as amended by Act No. 49 of 2000). The First Schedule of the latter has provided for the inclusion in the Plan matters connected with the "prohibition, regulation, and control of the deposit or disposal of refuse and waste material.

The above powers were widened in scope in 1982, wherein the Plans prepared for the development of the areas declared under the Urban Development Authority Law No. 41 of 1978 as amended by Act No. 4 of 1982, were empowered to provide for the inclusion therein of matters connected with "waste disposal facilities".

More Recently

More recently, the Regulations made under the National Environmental Act and published in Gazette Extraordinary No. 924/13 of 23 May 1996 stipulated that, "no person shall collect, transport, store, recover, recycle or dispose waste, or establish any site or facility for the disposal of any waste, except under the authority of a license issued by the Central Environment Authority (CEA) and in accordance with such standards and other criteria as may be specified by the Authority.

A previous Gazette Notification of 24 June 1993 had published an Order made by the Minister also under the

national Environmental Act No. 47 of 1980 as amended by Act No. 56 of 1988 designating, 'the construction of any solid waste disposal facility having a capacity exceeding 100 tons/day", as requiring approval by the Project Approving Agencies stipulated in the said Gazette Notification, after it's consideration of the submissions made with regard to Initial Environmental Examination (IEE) or of an Environmental Impact Analysis (EIA).

Meanwhile, the aforementioned National Environmental (Protection & Quality) Regulation No. 1 of 1999 was also amended by Gazette Notification No. 1159/22 published on 22 November 2000, stipulating that, "no person shall carry on any activity which discharges, deposits, or emits waste into the environment causing pollution except under the authority of a license issued by the CEA and in accordance with such standards and other criteria as may be specified by the Authority.

Environmental Standards & Guidelines

The CEA has now formulated Environmental Standards & Guidelines, which includes those for Incinerators to be used in operations such as medical waste management, and also for domestic, non-hazardous industrial wastes.

Thus as per factors mentioned hereto, the domain of Solid Waste Management has emerged as being equipped with the basic essentials of organisation, policy & enforcement. Yet, Solid Waste remains a matter of concern at the top - end of the Public Agenda.

Its importance may therefore imply that it is opportune to seek whether principles of management has sufficiently advanced to match the level of such importance attributed to same.

The latter will be addressed in the ensuing section of the Paper.