Chapter 15
Sustainable Waste Management Challenges in Sri Lanka

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ABSTRACT

Sri Lanka faced many catastrophes in managing wastes because of human errors and climate change impacts. Consequently, government administrators with stakeholder participation drafted a comprehensive policy on all aspects of waste management and now requires planning processes in the national, provincial, and local authority levels. Evidenced-Based Interactive Database is under construction. It will be a platform for all actors to participate in managing all types of wastes, inclusive of quantity and quality of wastes. This chapter describes municipal solid waste management, including present status of technology applications with the emphasis on 3R to divert wastes from landfills. It contains reports on e-wastes collection programs and some processing, polythene recycling, hazardous wastes management, including healthcare wastes, disaster and construction and demolition wastes, informal sector and recyclers, economics of waste management, and case studies. Future directives are given with coupling of intended nationally determined contributions for sustainable waste management.

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INTRODUCTION

The Democratic Socialist Republic of Sri Lanka is an island in the Indian Ocean southwest of the Bay of Bengal, between 5° 55' - 9° 50' North latitude and 79° 42' - 81° 53' East longitude of the equator below the Indian subcontinent. It is separated from the Indian subcontinent by the Gulf of Mannar and the Palk Strait. It is located at a global logistics hub at an intersection with major air and sea routes between Europe and the Far East. Its span is 447 km from north to south and 219 km from east to west. The island has nine provinces and 25 administrative districts as shown in Figure 1 with a total area of land and water of 65,610 km^2 and 62,705 km^2 makes up land area and the rest 2,905 km^2 consists of inland waters. Sri Lanka has a tropical climate and it consists of three major climatic zones namely wet zone, intermediate zone, and dry zone. The main industries consist of processing tea, rubber, coconuts, other agricultural commodities, fishing, telecommunications, insurance, banking, tourism, shipping, clothing, textiles, cement, petroleum refining, information technology services, and construction. The government system consists of a decentralized structure with 9 Provincial Councils (PCs) and 341 Local Authorities (LAs) made up of 24 Municipal Councils (MCs) which corresponds to a city, 41 Urban Councils (UCs) for semi-developed areas, and 276 Pradesheeya Sabhas (PSs) for rural areas. The categorization of LAs is according to its population and size. The LAs are responsible for providing a variety of local public services including sanitation and waste collection.

Figure 1. Provinces and districts of Sri Lanka (Nahallage, 2013)