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Waste Management: A Major Challenge to Developing Nations

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Short Commentary

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The larger part of solid waste generated in developing nations is disposed in open dumps, which leads to disturbances to public health and environment [1]. The main sources of solid waste management are Food wastes, plastic, leather, household hazardous materials, industrial waste etc. According to United Nations world commission on environment and development nearly 10 billion tons of solid waste was collected. If it continues to grow there is an impact on public health and environment [2]. Data collected in India, Europe and USA with the help of some professionals regarding the municipal solid waste management. According to this study compost yield from mixed waste composting contains 6 to 7% of feed material. 60% of input waste is discarded as composting rejects and landfills [3]. These wastes are not treated properly and mixed in to water. The main source is pollutants from both organic and industrial effluents which are introduced into the environment that has increased water and land pollution problems [4-6].

Chemical wastes which are released from industries are not synthesized properly. Without proper treatment they were released into the environment. Third world network reports show nearly one billion pounds of toxins are released into environment (air, water) [7-9]. Bioremediation is one of the important process which effectively removes pollutant from environment. In Serbia a municipal waste management planning was implemented. Life cycle analysis was performed to analyze importance of waste data in waste management system [8-14]. Another study was conducted in Hyderabad; India on municipal wards in 2014. In this study sustainable scenario of solid waste management with the increase in population. According to center for ecological sciences and center for sustainable technologies it is estimated that 1400km² of municipal solid waste disposed by the year 2047 [15-17]. In Addis Ababa (Ethiopia) 71% of waste was generated only from households, 10% from streets, 9% from commercial institutions, 6% from industries, 3% from hotels, and 1% from hospitals [18]. An approach for the quick evaluation of waste composition was evaluated by examining at metropolitan solid waste from five rural communities all through Central America and the Caribbean. In this method target waste materials were minimized and sieve shaker was employed to maximize the quantity of waste sorted in efficient and timely manner [19,20].

Due to rapid industrial development and global growth led to the imbalances between pollution, public health and environment. This type of waste is generated from metallurgical, mining, chemical, leather industry, distillery, sugar, battery, electroplating and pigment industry These include heavy metals such as nickel lead, cadmium and mercury, and toxic organic chemicals such as pesticides, PCBs, dioxins, polyaromatic hydrocarbons (PAHs), petrochemical and phenolic compound [21]. Medicinal wastes are considered as an extraordinary class of waste on the grounds that they posture potential human wellbeing and ecological dangers, as they contain human tissues or body parts, discarded plastic materials contaminated with blood, and different infectious materials. It is estimated that nearly 15-25%

of medicinal wastes are infectious. A study was conducted in Hanoi city in Vietnam regarding medical solid waste disposal. In 2010 18, 13.5, and 4.5 tons/ day of medical waste were generated in Hanoi city. It is estimated that 30.44, 24.36 and 6.09 tons/day medical waste generated in 2020 [22].

In India coal is the major source to generate electricity. While generating power with coal a byproduct was fly-ash is produced. After it was produced if not utilized in proper way it is considered as important pollutant to environment. This fly-ash can be utilized in cement, mine filling, bricks & tiles industries [23]. Radio active compounds like radium, uranium, cadmium, plutonium are hazardous to all the living forms if they are not disposed properly. The nuclear fuel is unloaded from the reactor it still contains radio-nuclides [24].

To reduce the effect of wastes on the environment and public there is need to educate people. The improper disposal of waste is mainly due to lack of self- consciousness. Media can help to create awareness in the people. There is a need to have regular aggressive sensitization campaigns on solid waste management by media [25].

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