



Municipal Solid Waste Management in the Himalayan city: A study of Shimla

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Abstract

Crosswise India, present structure for the collection, transportation and discarding of solid waste are stuck in disorder. The problem is more severe in the metropolitan regions, where speedily increasing inhabitants produce progressively higher amounts of solid waste that municipal organisations are incapable to manage efficiently. In India, the mass of waste generation has been progressively quickly over the last few years. According to the “swachhata sandesh newsletters” by the MoHUA, as of January 2020, 147,613 metric tonnes of solid waste is produced per day, from 84,475 wards.

Solid Waste can be divided into three Classes:

- i) Biodegradable waste or organic waste,
- ii) Inert and non- biodegradable waste and
- iii) Recyclable waste.

Waste throwing away and open burning remains to be the main ways of waste removal in India. Utmost of the municipalities and cities dispose of their waste by dumping it in low- lying areas outside the city. The disgusting odour and unpleasant image of garbage dumped on the road side sometimes overfull from drainage system or floating on the surface of the rivers is not at all infrequent in India. People also mess the roads and public spaces extremely. Landfilling technology is regularly used for the discarding of waste in India.

The Shimla municipal corporation has a long way to go before it attains 100% (percent) isolation of wet and dry waste. "Around 30 percent of the houses and maximum profitable institutions are not separated their waste," said Municipal Corporation's health officer. As a consequence, the city's solid waste management plant, Bhariyal, gets mixed waste, which decreases the effectiveness of the plant. "The mixed waste increases the procedure of waste management and it disturbs our technologies too," said Danish, an official from Elephant Energy, which is running the plant.

Key words: Bio-degradable, Dumping, Segregation, waste management plant.

Introduction

Unlike that of western countries, the solid waste of Asian cities is frequently contained of 70-80% biological matter, dirt and dust. Composting is measured to be the best decision to compact with the waste generated. Composting support diminish the waste transported to and disposed of in landfills. Landfills have also been broadly ineffective in states time frame of usage. The population of the developing nations is another component that adversely influences the purpose of landfill locations. As the population keep progressively, the garbage amount also raises, which in turn, depletes the landfills spots. Landfills are also becoming increasingly costly because of the rising prices of construction and operation.

Incineration, which can prominently decrease the quantity of arriving municipal solid waste, is the second greatest common technique for removal in developed nations. However, incinerator residue may contain harmful materials containing heavy metals and organic compounds such as dioxins, etc. Recycling plays a great role in solid waste management, mainly in municipalities in developing nations.¹

Human actions produce waste, and the ways that waste is handled, stored, collected, and disposed of can pose dangers to the atmosphere and to public wellbeing. Solid waste management (SWM) comprises all events that pursue to decrease health, ecological, and aesthetic impacts of solid waste. In metropolitan areas, particularly in the speedily urbanizing cities of the emerging world, difficulties and problems of municipal solid waste management (MSWM) are of immediate importance. A nation such as India, with its high financial growth and rapid urbanization, wants mishandling the problem and are looking for well ways of intervening. They realize that such interventions are important to improving the value of their cities and to decreasing adverse health and ecological impacts. For cities to be sustainable and to remain their economic growth, they must be clean and healthy. They need to develop their

¹ www.science.com>articlepiimunicipalsolidwastemanagementinIndia

Solid Waste Management systems by adopting good collection coverage, proper transfer approaches, and strong discarding practices.²

In the Himalayan towns it's very tough to collect all the waste from the households and market places. Mainly in rainy season or winter season, because heavy snow fall and rain became hurdles for the door- to- door garbage collector. So it's not possible to collect 100% of waste in these days.

Municipal Corporation Shimla

Municipal Government was first announced in Shimla December 1851, under the establishment of Act xxvi of 1850. It was with a opinion to accomplish the local essentials that the municipal committee was changed in September, 1970 in to Municipal Corporation. When Shimla was a portion of Punjab state, the Shimla Municipal committee was established under the Punjab Municipality Act 1911. Later, Punjab government issued notification No. 9 dated June 4, 1968, to alteration in the constitution of Himachal Pradesh and Municipal committee was dissolved on 27th June, 1969 and exchanged by a corporation comprising of an administrator and 10 selected members, out of which one was to be a women and one to be a schedule caste. For a second time, Shimla Municipal Corporation was recognised under Himachal Pradesh Municipal Act, 1968.³

Urbanization in Shimla Municipal Corporation

The tendency of growth in Shimla city too, has been enormous. The urban population in Shimla city has enlarged during this era in a marvellous way. The table no. 1 discloses the evolution of population of Shimla city during 1971 to 2011.⁴

² openknowledge.worldbank.org>handle improving municipal solid waste management in India.

³ The Himachal Pradesh Municipal Corporation Act, 1994 in sixteenth Annual supplement to Himachal Pradesh codes, vol. 1 To VIII, government of Himachal Pradesh, p.220.

⁴ Harinder Singh Walia, "Planned", Published by Unistar Books Pvt. Ltd, Chandigarh, 2006, P.8-9.

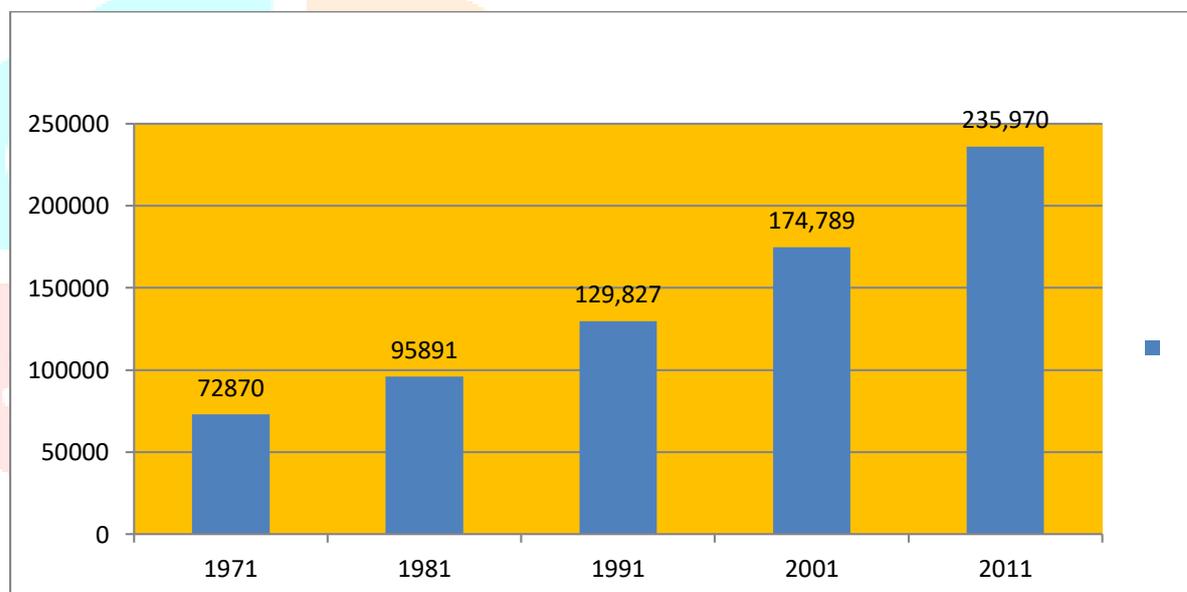
Table no.1

Total Population of Shimla city

Years	Total population	Percentage increase in population
1971	72870	-
1981	95891	24
1991	1,29,827	26.13
2001	1,74,789	25.71
2011	2,35,970	25.92

Graph 1

Total Population of Shimla City



From the above graph, it can be seen that the population of Shimla in 1971 was 72870 and it augmented to 2, 35,970 in 2011. It evidently shows the population of Shimla with in a period of 40 years has, folded, nevertheless the ratio of growth in population reduced. To handle with the difficulties of growing urbanization, Shimla Municipal Corporation need extra moneys. Usually the Shimla Municipal Corporation is incapable to meet the enormous expenses required to commence the projects out of its own routine earnings.⁵ Due to the rapidly increasing of population generates a large amount of waste. To cope with the situation of solid waste management municipal corporation Shimla doesn't have the sufficient technology, manpower as well as funds. Besides this Shimla city is also slipped in ranking in the swachh survekshan 2021 survey.

⁵ Data collected from the Municipal corporation office Shimla.

Reasons for slip in Shimla's Ranking are:

- Absence of waste isolation was one of the main causes behind Shimla slipping last year in the swachh survekshan 2021 survey.
- Around 30% of the homes and most marketable institutions are not isolating their waste, which decreases the proficiency of the city's solid waste management plant at Bhariyal.
- The municipal corporation is making efforts to prepare citizens about the need to segregate the waste.

Initiatives taken by Shimla Municipal Corporation for the betterment of solid waste management:

Make the garbage collection more efficient and disposed it in a scientifically manner, Municipal Corporation Shimla is taking some initiatives for this purpose:

- Effective garbage collection and segregation of the waste. Currently, Shimla Corporation is used pick-up vans and trucks for the garbage collection in the different wards of the city.
- Under the smart city mission Shimla corporation getting four compactors. It will be a good addition to in garbage-collecting machinery.
- Besides, this municipal corporation is making efforts to setup a plant of five-tonne waste- to- compost plant at the Indira Gandhi medical college and hospital (IGMC) for the management of wet waste. "They didn't get any dealer twice for the plant. Even when the tender was dropped for the third time, they have just one dealer. Now, they are waiting to the government that the tender be given to the lone bidder.
- Municipal corporation Shimla also seeing for a space in the city where they can set up a few such plants with one- tonne capability for turn-off wet organic waste in to compost.
- Efforts to alert peoples were also under-way. They are released jingles on radio set to make people more alert about the need to separate waste. Unless people cooperate, 100% of separation will be problematic to accomplish.
- The administrator of Municipal Corporation Shimla also told their staff to be slight harsh with the households who do not isolate their waste.⁶

Conclusion

Any developing countries like India, it is very difficult to handle the situation of solid waste in a proper manner. Generation of waste is also increased day by day with the development of Shimla city. Another one of the key factor of increasing of waste is fastly growing of population of urban areas. So it's becoming a challenging task for urban local bodies to cope with the situation of solid waste issues. Without any technology and financial support, it's very difficult to handle the situation of waste. Shimla

Municipal Corporation is lacking in the funds, scientific technology and manpower to tackle with the problems of solid waste management. Still, dumping of waste in landfill sites are a common practice in Himalayan cities as well as in the other part of the countries. Second most common practice in the state is burning of waste in open place, which is injurious to health and also effects the environment. If we want to reduce the waste then, Recycling is the best technique to handle it. To achieving the goal of recycling peoples should be aware about the process of segregation. So that cent per cent segregation is done on household level. It is the duty of all citizens to make the environment healthy, clean and green.

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⁵Data collected from the Municipal corporation office Shimla.

⁶<http://m.tribuneindia.com>himachal>.

