



SHORT COURSE ON SOLID WASTES
COLLECTION AND DISPOSAL

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PROBLEMS OF COLLECTION AND DISPOSAL OF SOLID REFUSE
IN CHITTAGONG

by

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In towns and cities where the density of population is very high and vacant space is practically nil the speedy collection of refuse of all types is very important from the sanitation and public health point of view.

The problem of its collection and disposal differs from place to place depending on the size, geographical and climatic conditions of the towns and cities and also the habits of the population.

In Chittagong this problem is quite different from that of other cities and towns of East Pakistan mainly because of its topographical position. The Chittagong City consists of hills and valleys and as a result the Municipal Administration is faced with some peculiar problems in collecting and disposing of refuse.

The term refuse includes many different substances from a great number of sources. For simplicity, it may be divided into the following classification:

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1. Garbage
2. Rubbish
3. Ashes
4. Street sweepings
5. Dead animals and girth of slaughtered animals
6. Night soil
7. Stable manure
8. Drain sediment
9. Wild vegetation

The intention of this paper is to deal with only (a) garbage, (b) rubbish, (c) street sweepings, (d) drain sediment and (e) wild vegetation as these are the main problems for the Chittagong Municipal Administration.

Garbage :

This comprises the waste materials from kitchens, homes, hotels and institutions, as well as the vegetable and animal wastes from groceries, markets, abattoirs and food establishments. It varies considerably in quantity during the year, being greater in volume in the dry season particularly from the month of November to April when the vegetable waste is most abundant. Chittagong has a tropical climate and to avoid quick fermentation, undesirable odours, flies and insects, the collection and disposal of refuse is essential.

Rubbish :

This material includes household and business wastes which is not classified as garbage. It includes papers, rags, packing wood, glass, broken crockery, metals and waste of small cottage industries which are scattered throughout the length and breadth of the city. Collection and disposal of such rubbish do not require immediate attention from the sanitation point of view like garbage. In practice it is placed with the garbage in the same container and so needs quick collection and disposal.

Street Sweepings :

These are made up of dust which has been worn from the road surfaces, horse and bullock droppings, materials which have fallen from vehicles, leaves and sweepings from stores and sidewalks, etc. In Chittagong most of the hills are sandy and as a result the amount of dust in the street sweepings is quite considerable.

Wild Vegetation :

During the monsoon period the growth of wild vegetation, such as weeds, grass, shrubs, etc., in the open spaces is abundant. People generally clean the premises just after the monsoon and throw their rubbish into the street indiscriminately. The collection and disposal of this become quite a problem during this period.

COLLECTION AND DISPOSAL

Bins are placed on the streets at reasonable intervals on portable concrete bases. In them people throw their waste materials consisting of garbage, rubbish, etc. The refuse is collected from the bins by contractors in covered and open trucks and taken to the dumping area situated outside the city at a reasonable distance from human habitation. At the dumping ground the refuse is heaped and when suitable it is burnt during the dry season to reduce the volume. Generally the refuse consists mostly of non combustible materials as a result a vast area of land is required for dumping it. Anti-malarial oil and insecticides are spread over the refuse to keep flies and insects away.

DIFFICULTIES

As stated earlier the average citizen of Chittagong has not developed a true civic sense. Though the dust-bins are placed at convenient places, a good number of citizens neglect to throw the refuse into the bin. The haphazard and indiscriminate throwing of refuse into the streets by irresponsible citizens is one of the greatest headaches for the Municipal Authority.

The next and biggest problem is the disposal of the refuse. There is no appreciable area of low land in the vicinity of Chittagong City where the huge quantities of refuse can be dumped. Recently we have acquired a few acres of land for the disposal of refuse on the outskirts of Chittagong City where dumping started a year ago. Even at the present rate of disposal the above mentioned area will not be able to accommodate the dumpings for the next five years, when we shall have to find out another site. The cost of land is very high and it is very difficult to find a suitable place. Moreover this city is expanding at a very fast rate engulfing more and more area. It has become very important for us to find out a modern solution to tackle this problem. I hope this short course may throw some light on the problem and help to provide a solution to it.

The resources of Chittagong Municipality being limited, no scientific method for the proper disposal of the refuse can be adopted yet. I hope that WHO will come forward to help us with technical and material help to find a modern solution to this problem.