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SHORT COURSE ON SOLID WASTES
COLLECTION AND DISPOSAL

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SOLID WASTES COLLECTION AND DISPOSAL IN THE REPUBLIC OF SOMALIA

by

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First I want to offer my most grateful thanks to WHO and to the Government of the Syrian Arab Republic which is the host of the Course.

Mogadishu is the capital of the Somali Republic, and I work as Assistant Head of the Technical Section in the Municipality of that city. I have to solve many problems daily on drainage and sewerage. So I have chosen this topic for discussion, which will offer me an opportunity for research and discussion in this Course.

Mogadishu is a coastal city situated on the Indian Ocean in the Northern Hemisphere, 400 kilometres from the Equator, and its population at present is about 250 000. It covers an area of 18 square kilometres, and has a road network, bitumenised and asphalted 35 kilometres long. There is also a network of secondary roads with a dirt surface of length 170 kilometres.

THE PROBLEM OF DRAINAGE IN THE CITY

The city has no drainage system, and it is one of the main points that I wish to discuss.

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The city possesses old water-mains, involving 50 000 metres of pipes, which distribute daily 2.2 million litres of brackish water. A second smaller water-main distributes daily about 800 000 litres of potable water, but the drinking water supply of the city is completed by private wells from which about 2 million litres of water per day are distributed.

From the above, it will be seen that there is the problem of getting rid of about 5 million litres of water every day, and as in Mogadishu there is no drainage system capable of carrying this quantity of water to the sea, the problem is being dealt with on a temporary basis, pending the construction of proper cesspits.

We may consider the problem in three eras :

First Era

In olden times and until a few years ago, every house had its own cesspit. This took in the form of an underground tank with pierced walls into which liquid sewage deriving from the lavatories, kitchens, bathrooms and laundries was received. After leaving the tank it was absorbed into the ground. This system involves the necessity of emptying the tanks of the solid waste part which remains. This is still done or carried by special truck tankers equipped with pumps. When these are full they empty out the solid wastes in a special place reserved for them, about 15 kilometres from the nearest habitation, where they are covered with petrol and burned. The ashes resulting from this burning are collected and used as agricultural fertilizers. This system has given trouble because of the pollution of drinking water wells, and it is also very expensive for the Municipality to maintain the tankers.

Second Era

The new housing regulations provide that all newly constructed buildings should be provided with biological septic tanks, constructed in accordance with technical specifications which ensure the biological processing of sewage and its subsequent emission to a second chamber of the septic tank, from which it can emerge clean and bacteriologically pure. From there it is led through a pipe to

another buried tank without sides but filled with pebbles from which it may be absorbed by the neighbouring ground without risk of polluting potable water supplies. This system gives excellent results judged by the chemical analysis of the water of near-by wells.

But there is no doubt that even this system is not the best to guarantee the disposal in a rational fashion of all the fluid daily consumed by the city, even if the septic tanks work perfectly according to their design. In these days, the serious problem is that of getting rid of rain-water, which in the absence of a drainage system, turns the lower areas of the town into veritable swamps.

Third Era

The problem of the drainage of the city is not insoluble technically, but presents financial difficulties in so far as the country has many problems that are more immediately pressing in order to establish economic stability from the point of view of the entire territory.

A study has revealed that for a drainage network, there will be the necessity of establishing 35 kilometres of main sewage, 100 kilometres of primary drains and 70 kilometres of secondary drains. This work would require the expenditure of 300 million shillings Somalos or 15 million sterlings.

The problem would not even then be finalized, as it would still be necessary to asphalt 170 kilometres of earth roads, as without doing this, it would be impossible to keep the drains free of earth and sand which would block them.

It can be seen then that the problem is essentially a financial one, since technical difficulties are foreseen due to the fact that the greater part of the city lies on a plane inclining towards the sea. Still, the technical problems demand the solution of other projects which form a programme: the writing of Regulations, new water-mains, and the paving of roads and sidewalks still made of earth. Thus it is necessary to find funds as quickly as possible for this vital work, which is intimately bound up with the public health and the economic and social development of the people of Mogadishu.