# Current Waste Management System in Afghanistan

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### <u>1. Introduction</u>

In Afghanistan inappropriate solid waste management, which are no longer useful, generates lots of environmental pollution and outbreaks of vector-borne disease, the tasks of SWM is to manage the generated waste properly and reduce its negative side effects from the environment and community level. The explosive growth of urban population already strained inadequate solid waste disposal facilities, while unregulated vehicle traffic and industrial development increased pollution of both water and air in cities. Medical wastes from hospitals were another serious health threat.

Today, there are still no proper landfills in many cities, and none of the dumpsites are designed to prevent groundwater contamination or toxic air pollution from burning waste. Many dumpsites are located upstream of the cities, where heavy rains could wash the wastes back into populated areas. One such dumpsite is close to a well field used to draw drinking water for Kabul. In this paper, situation of SWM in Afghanistan was introduced, then the problem were revealed to discuss about solutions.

## 2. Generated wastes amount in Kabul

The daily waste generation of Kabul is estimated about 3,000 tons per day or about 0.4 kg per person per day. The composition of solid waste is mostly organic matter (57%), followed by paper and plastics (15%), and other material including metals and glasses (28%).

While the amount of SW IS 3,000 ton per day, and the collection capacity of Directorate of sanitation is only 400 ton per day. At the present, due to the shortage of facilities, vehicles and workers, the municipality is only able to collect 12% of the generated waste from the City, which is just a small portion of the Overall waste In the city.



Figure No 1: SW generation and collection amount in Kabul

#### 3. Solid Waste Management Cycle in Kabul

Main waste generation sources are: houses, commercial places, industries, construction places, hospitals, institutions and municipality services. Waste is collected in the streets and main roads areas of the city.

Waste collection in garbage cans/ drums, and containers: Small (2.5m<sup>3</sup>) and large (7m<sup>3</sup>) size garbage cans or containers are used residential and commercial waste collection

There is no sorting; reducing, reusing and recycling system exist: Mostly the waste are just burned without any treatment or covered by soil. For transportation by Hino, Mazda, Mini truck, Isuzo and some newly donated vehicles by the international community are used.

Transportation to landfills: In the landfill all the collected wastes are covered by soil in the end of the day.



Figure 2: SW Management cycle in Kabul

## 4. Landfills/dump sites:

It is very essential for an administrative organization to buildup proper sanitary landfills. Proper landfills are very important for minimization of leakage of soil pollutants and other toxins from getting into the water table. This method is effective, but there are financial and technical difficult. Promoting 3Rs can help governments to have less waste generation and properly management. Unfortunately in Afghanistan, almost everywhere in the city, sorting is not happening by the government due to different reasons. All kinds of waste such as paper, food, diapers, and ashes during the winters, iron, glasses and almost every unusable thing are mixed up and deposited in the municipality drums

Waste	
-	Residential (HIHs)
	Industrial
	Commercial
	Construction and demolition
	Institutional
-	Agricultural
	Others

Figure 3: Waste classification based on it is source



Figure 3: Waste landfills in Kabul

and containers. Presently in Kabul all the collected wastes are trucked and transferred to the existing disposal site/landfill (Gazak 2). Chamtala, Company and Gazak No 1 which are located on the western and northern sides of Kabul have been closed and is not functional at the present.

## 4.Conclusions

The problem is increasing of waste generation with the return of refugees from neighboring countries and other provinces into Kabul. Based on the findings, Afghanistan requires a great deal of its management on all fronts to repair the effects of war and political disruption. It is usual for solid waste management to be low priority in such rehabilitation situations. But the rebuilders of the country will put the urban population at great risk if they fail to act on the interrelated problems of sanitation, solid waste and military wastes. One of the most important aspects is that, Kabul is totally dependent upon its ground water for its water supply, and the lack of proper management of human excreta and solid wastes inevitably contaminate the ground water.

## References

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