

# Habitat Preservation and Waste Management in Sharjah

## Waste Management; Physical Foot print

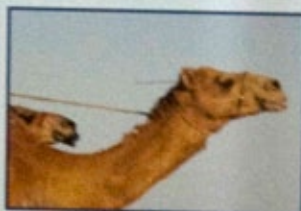
The UAE has one of the world's highest levels of domestic waste per capita. Household waste has reached an average annual 730 kilos in Abu Dhabi and 725 kilos in Dubai.

- A considerable amount of land in Sharjah is taken up by landfills. Waste management facilities require a lot of infrastructure/construction, and heavy duty machinery. Landfills in general do not support natural flora and fauna; environments are not hospitable for their survival. Therefore it is necessary to:
  - (a)- preserve natural habitats on landfill sites
  - (b)- restore habitats on sites by taking extra measures.

### Disposal sites:

- Al Saj'ah: 41 hectares (MRF, TRF, oil ponds, all on site)
- Khorfakkan: 20 hectares
- Kalba: 10 hectares; 138 tons/day;
- Al Dhaid: 15-20 hectares; 180 tons/day; 20-25 yrs left

## Preserving Habitat While Developing Waste Management Facilities



- Landfill sites are home to several species of flora and fauna. It is essential to preserve their habitats during waste management operations.
- Landfills support certain ecosystems by being a source of food.
- A variety of snake species are found in the UAE along with seagulls, dogs, foxes, donkeys, goats and many other species (including scorpions) and a lot of them can be found scavenging for food on landfills.
- Landfills must have a layer of soil placed over the waste at the end of every day which makes it hard for some species to seek refuge (e.g. rats).
- Landfills pose a problem to the ground water as leachates may percolate to the groundwater table and contaminate the water. A measure taken to prevent this from happening is to install fabric liners or apply a layer of clay to stop water movement, either into the landfill or out of it. They have adopted the use of liners in the Al Saj'ah landfill only.

## Restoring Habitat While Developing Waste Management Facilities

Restoring natural habitats while developing waste management facilities is one of Bee'ah's main concerns. In addition to restoration, it is essential that waste/landfill managements preserve the natural habitats that exist on landfills. Since taking over the management of several landfills in Sharjah, Bee'ah has been trying to improve their situation. Several measures can be taken in order to restore and preserve habitats that exist within landfills. These are listed in more detail below.



**Tree-planting:** Planting trees that are adapted to the native environment and to landfill conditions improve the aesthetics of the landfill sites as well as enhancing species biodiversity.



**Wetlands:** One possible measure that could promote biodiversity with landscaping is creating a "wetland" or "temporary wetland" habitat by creating artificially engineered wetland systems. Wetland habitats are a part of the landscape and are an extremely important component of habitat diversity and thus species diversity.



**Vegetation:** Conditions for growth can best be improved by careful planning of the operations at the landfill. Completed landfills with suitable and sufficiently deep cover soil will develop a remarkably good spontaneous coverage of herbaceous vegetation in a few years.



**Gated Areas:** At some sites, restoration will proceed naturally once disturbance factors are eliminated. At other sites, barriers to exclude vehicles are erected, and native grass, shrubs, and trees are planted. Planting of several hundreds of trees and shrubs control erosion and improve the habitats of animals. This method allows plant and animal species to thrive and flourish and attract birds and other animals to the area, thus contributing to biodiversity on a landfill site.

Bee'ah

The Sharjah Environment Co.



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